

# Type 380LQ, 85 °C Compact, High-Capacitance Snap-in

## 27% Smaller for Same Capacitance



Type 380LQ is on average 27% smaller and more than 10 mm shorter than Type 380L. This is achieved with a new can-closure method that permits installing capacitor elements into smaller cans. Approaching the capability of the 380L, the new 380LQ enables you to shrink equipment size and retain the original performance.

### Highlights

- ♦ New, more capacitance per case
- ♦ Compare to Type 380L

## Specifications

**Operating Temperature:** -40°C to + 85°C <250Vdc

-25°C to + 85°C >350Vdc

**Rated Voltage:** 160 to 450 Vdc

**Capacitance:** 82 µF to 3,900 µF ± 20%

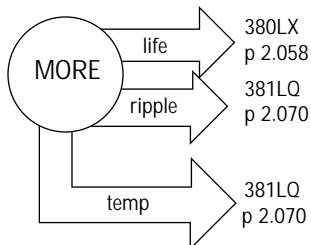
**Leakage Current:**  $\leq 3 \sqrt{CV}$  µA, 4 mA max, 5 minutes

**Ripple Current Multipliers:** **Ambient Temperature**

45 °C	60 °C	70 °C	85 °C
1.5	1.46	1.3	1.0

### Frequency

50 Hz	60 Hz	120 Hz	500 Hz	1 kHz	10 kHz & up
0.95	0.98	1.00	1.20	1.25	1.40



**Load Life:** 2000 h at full load at 85 °C  
Δ Capacitance ±10%  
ESR 125% of limit  
DCL 100% of limit

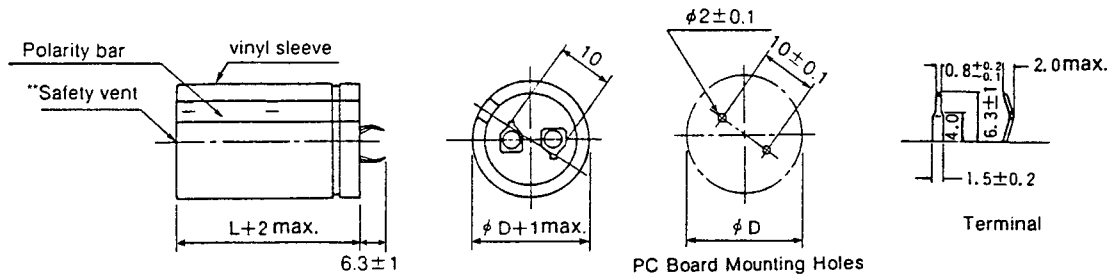
**EIA Ripple Life:** 2000 h at 85 °C, full load per EIA IS-749 °C  
Δ Capacitance ±20%  
ESR 200% of limit  
DCL 100% of limit

**Shelf Life:** 1000 h at 85 °C, Δ capacitance ± 10%, ESR 200% of limit, DCL 100% of limit

**Vibration:** 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane

# Type 380LQ, 85 °C Compact, High-Capacitance Snap-in

## Outline Drawings



## Insulated Case Dimensions

Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)	Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)
	mm	inches	mm	inches			mm	inches	mm	inches	
H01	22	0.87	25	0.98	16	K01	30	1.18	25	0.98	30
H02	22	0.87	30	1.18	19	K02	30	1.18	30	1.18	35
H03	22	0.87	35	1.38	22	K03	30	1.18	35	1.38	40
H04	22	0.87	40	1.57	24	K04	30	1.18	40	1.57	44
H45	22	0.87	45	1.77	28	K45	30	1.18	45	1.77	49
H05	22	0.87	50	1.97	31	K05	30	1.18	50	1.97	53
J01	25	0.98	25	0.98	20	A01	35	1.38	25	0.98	42
J02	25	0.98	30	1.18	24	A02	35	1.38	30	1.18	48
J03	25	0.98	35	1.38	27	A03	35	1.38	35	1.38	54
J04	25	0.98	40	1.57	31	A04	35	1.38	40	1.57	60
J45	25	0.98	45	1.77	35	A45	35	1.38	45	1.77	67
J05	25	0.98	50	1.97	38	A05	35	1.38	50	1.97	74

Aluminum  
Snap-In  
Capacitors

## Part Numbering System

380LQ  
Type

561  
Capacitance  
561 = 560  $\mu\text{F}$   
392 = 3900  $\mu\text{F}$

M  
Tolerance  
M =  $\pm 20\%$

160  
Rated Voltage  
160 = 160 V  
450 = 450 V

H01  
Case Code

2  
Insulation  
2 = PVC

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2.055



# Type 380LQ, 85 °C Compact, High-Capacitance Snap-in

Cap. (µF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 85 °C		Nominal Size DxL (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
1000	380LQ102M200J032	0.199	0.090	3.25	4.55	25 X 35
1000	380LQ102M200K022	0.199	0.090	3.25	4.55	30 X 30
1000	380LQ102M200A012	0.232	0.116	3.25	4.55	35 X 25
1200	380LQ122M200H052	0.166	0.075	3.50	4.90	22 X 50
1200	380LQ122M200J042	0.166	0.075	3.50	4.90	25 X 40
1200	380LQ122M200K022	0.166	0.075	3.50	4.90	30 X 30
1500	380LQ152M200J052	0.133	0.060	3.87	5.42	25 X 50
1500	380LQ152M200K032	0.144	0.065	3.87	5.42	30 X 35
1500	380LQ152M200A022	0.144	0.065	3.87	5.42	35 X 30
1800	380LQ182M200K452	0.160	0.080	4.32	6.05	30 X 45
1800	380LQ182M200A032	0.120	0.060	4.32	6.05	35 X 35
2200	380LQ222M200K052	0.098	0.049	4.92	6.89	30 X 50
2200	380LQ222M200A042	0.105	0.053	4.92	6.89	35 X 40
2700	380LQ272M200A052	0.086	0.043	5.45	7.63	35 X 50
250 Vdc, (300 Vdc Surge)						
270	380LQ271M250H012	0.737	0.332	1.31	1.83	22 X 25
330	380LQ331M250H022	0.603	0.271	1.75	2.45	22 X 30
390	380LQ391M250H022	0.510	0.230	1.91	2.67	22 X 30
390	380LQ391M250J012	0.510	0.230	1.91	2.67	25 X 25
470	380LQ471M250H032	0.423	0.190	2.11	2.95	22 X 35
470	380LQ471M250J022	0.423	0.190	2.11	2.95	25 X 30
560	380LQ561M250H042	0.355	0.160	2.25	3.15	22 X 40
560	380LQ561M250J022	0.355	0.160	2.25	3.15	25 X 30
560	380LQ561M250K012	0.355	0.160	2.25	3.15	30 X 25
680	380LQ681M250H452	0.293	0.132	2.50	3.50	22 X 45
680	380LQ681M250J032	0.293	0.132	2.50	3.50	25 X 35
680	380LQ681M250K022	0.293	0.132	2.50	3.50	30 X 30
820	380LQ821M250H052	0.243	0.109	2.77	3.88	22 X 50
820	380LQ821M250J042	0.243	0.109	2.77	3.88	25 X 40
820	380LQ821M250K022	0.243	0.109	2.77	3.88	30 X 30
820	380LQ821M250A012	0.243	0.121	2.77	3.88	35 X 25
1000	380LQ102M250J452	0.199	0.090	3.32	4.65	25 X 45
1000	380LQ102M250K032	0.199	0.090	3.32	4.65	30 X 35
1000	380LQ102M250A022	0.199	0.090	3.32	4.65	35 X 30
1200	380LQ122M250K042	0.166	0.075	3.53	4.94	30 X 40
1200	380LQ122M250A032	0.166	0.083	3.53	4.94	35 X 35
1500	380LQ152M250K052	0.133	0.066	4.04	5.66	30 X 50
1500	380LQ152M250A042	0.133	0.066	4.04	5.66	35 X 40
1800	380LQ182M250A452	0.111	0.055	4.55	6.37	35 X 45
2200	380LQ222M250A052	0.105	0.052	5.00	7.00	35 X 50
315 Vdc, (385 Vdc Surge)						
180	380LQ181M315H012	1.105	0.553	1.21	1.69	22 X 25
220	380LQ221M315H022	0.904	0.452	1.41	1.97	22 X 30
270	380LQ271M315H022	0.737	0.368	1.60	2.24	22 X 30
330	380LQ331M315H042	0.603	0.301	1.82	2.55	22 X 40
330	380LQ331M315J022	0.603	0.301	1.82	2.55	25 X 30
330	380LQ331M315K012	0.603	0.301	1.82	2.55	30 X 25
390	380LQ391M315H452	0.510	0.255	2.01	2.81	22 X 45
390	380LQ391M315J032	0.510	0.255	2.01	2.81	25 X 35
390	390LQ391M315K022	0.510	0.255	2.01	2.81	30 X 30
470	380LQ471M315H052	0.423	0.212	2.27	3.18	22 X 50
470	380LQ471M315J042	0.423	0.212	2.27	3.18	25 X 40
470	380LQ471M315K022	0.423	0.212	2.27	3.18	30 X 30
470	380LQ471M315A012	0.423	0.233	2.27	3.18	35 X 25
560	380LQ561M315J452	0.355	0.178	2.56	3.58	25 X 45
560	380LQ561M315K032	0.355	0.178	2.56	3.58	30 X 35
560	380LQ561M315A022	0.355	0.195	2.56	3.58	35 X 30
680	380LQ681M35K042	0.293	0.148	2.87	4.02	30 X 40
680	380LQ681M315A032	0.293	0.146	2.87	4.55	35 X 35
820	380LQ821M315K452	0.243	0.121	3.25	4.55	30 X 45
820	380LQ821M315A042	0.243	0.121	3.25	4.55	35 X 40
1000	380LQ102M315K052	0.199	0.090	3.63	5.08	30 X 50
1000	380LQ102M315A452	0.199	0.109	3.63	5.08	35 X 45
350 Vdc (400 Vdc Surge)						
150	380LQ151M350H012	1.328	0.663	1.12	1.57	22 X 25
180	380LQ181M350H022	1.105	0.553	1.22	1.71	22 X 30
220	380LQ221M350H032	0.904	0.452	1.44	2.02	22 X 35
270	380LQ271M350H042	0.737	0.368	1.66	2.32	22 X 40
270	380LQ271M350J022	0.737	0.368	1.66	2.32	25 X 30
330	380LQ331M350H452	0.603	0.301	1.88	2.63	22 X 45
330	380LQ331M350J032	0.603	0.301	1.88	2.63	25 X 35
390	380LQ391M350H052	0.510	0.255	2.06	2.88	22 X 50
390	380LQ391M350J042	0.510	0.255	2.06	2.88	25 X 40
390	380LQ391M350K022	0.510	0.255	2.06	2.88	30 X 30
390	380LQ391M350A012	0.510	0.255	2.06	2.88	35 X 25
470	380LQ471M350J452	0.423	0.211	2.40	3.36	25 X 45
470	380LQ471M350K032	0.423	0.211	2.40	3.36	30 X 35
470	380LQ471M350A022	0.423	0.211	2.40	3.36	35 X 30
560	380LQ561M350J050	0.355	0.178	2.60	3.64	25 X 50
560	380LQ561M350K042	0.355	0.178	2.60	3.64	30 X 40
560	380LQ561M350A022	0.355	0.178	2.60	3.64	35 X 30
680	380LQ681M350K452	0.293	0.146	2.96	4.14	30 X 45
680	380LQ681M350A032	0.293	0.146	2.96	4.14	35 X 35
820	380LQ821M350K052	0.243	0.121	3.25	4.55	30 X 50
820	380LQ821M350A452	0.243	0.121	3.25	4.55	35 X 45
1000	380LQ102M350A052	0.199	0.109	3.54	4.96	35 X 50
400 Vdc (450 Vdc Surge)						
120	380LQ121M400H012	1.658	0.830	1.02	1.43	22 X 25
150	380LQ151M400H022	1.326	0.660	1.16	1.62	22 X 30
180	380LQ181M400H032	1.105	0.552	1.44	2.02	22 X 35
220	380LQ221M400H042	0.904	0.452	1.49	2.09	22 X 40
220	380LQ221M400J022	0.904	0.452	1.49	2.09	25 X 30
270	380LQ271M400H452	0.737	0.368	1.67	2.34	22 X 45
270	380LQ271M400J032	0.737	0.368	1.67	2.34	25 X 35
270	380LQ271M400K022	0.737	0.368	1.67	2.34	30 X 30
330	380LQ331M400H052	0.603	0.301	1.90	2.66	22 X 50
330	380LQ331M400J042	0.603	0.301	1.90	2.66	25 X 40
330	380LQ331M400K022	0.603	0.301	1.90	2.66	30 X 30
330	380LQ331M400A012	0.603	0.301	1.90	2.66	35 X 25
390	380LQ391M400J452	0.510	0.255	2.13	2.98	25 X 45
390	380LQ391M400K032	0.510	0.255	2.13	2.98	30 X 35
390	380LQ391M400A022	0.510	0.255	2.13	2.98	35 X 30
470	380LQ471M400J052	0.423	0.212	2.39	3.35	25 X 50
470	380LQ471M400K042	0.423	0.212	2.39	3.35	30 X 40
470	380LQ471M400A022	0.423	0.212	2.39	3.35	35 X 30
560	380LQ561M400K452	0.355	0.178	2.69	3.77	30 X 45
560	380LQ561M400A032	0.355	0.178	2.69	3.77	35 X 35
680	380LQ681M400K052	0.293	0.148	2.96	4.14	30 X 50
680	380LQ681M400A452	0.293	0.148	2.96	4.14	35 X 45
820	380LQ821M400A052	0.243	0.122	3.25	4.55	35 X 50
450 Vdc (500 Vdc Surge)						
82	380LQ820M450H012	2.426	1.213	0.83	1.16	22 X 25
100	380LQ101M450H012	1.990	0.995	0.93	1.30	22 X 25
120	380LQ121M450H022	1.656	0.829	1.04	1.46	22 X 30
150	380LQ151M450H032	1.326	0.663	1.19	1.67	22 X 35
150	380LQ151M450J022	1.326	0.663	1.19	1.67	25 X 30
180	380LQ181M450H042	1.105	0.553	1.35	1.89	22 X 40
180	380LQ181M450J022	1.105	0.553	1.35	1.89	25 X 30
220	380LQ221M450H452	0.904	0.452	1.55	2.17	22 X 45
220	380LQ221M450J042	0.904	0.452	1.55	2.17	25 X 40
220	380LQ221M450K022	0.904	0.452	1.55	2.17	30 X 30
220	380LQ221M450A012	0.904	0.452	1.55	2.17	35 X 25
270	380LQ271M450H052	0.737	0.368	1.78	2.49	22 X 50
270	380LQ271M450J042	0.737	0.368	1.78	2.49	25 X 40
270	380LQ271M450K022	0.737	0.368	1.78	2.49	30 X 30
330	380LQ331M450J052	0.603	0.302	2.01	2.81	25 X 50
330	380LQ331M450K042	0.603	0.302	2.01	2.81	30 X 40
330	380LQ331M450A022	0.603	0.302	2.01	2.81	35 X 30
390	380LQ391M450K042	0.510	0.255	2.24	3.14	30 X 40
390	380LQ391M450A032	0.510	0.255	2.24	3.14	35 X 35
470	380LQ471M450K452	0.423	0.212	2.53	3.54	30 X 45
470	380LQ471M450A042	0.423	0.212	2.53	3.54	35 X 40
560	380LQ561M450K052	0.355	0.178	2.82	3.95	30 X 50
560	380LQ561M450A452	0.355	0.178	2.82	3.95	35 X 45

Aluminum  
Snap-In  
Capacitors

# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

## Types 380L/LX & 4-pin Mount 382LX (85 °C)



The excellent value of Type 380L/LX capacitors finds application in switching power supply input and output circuits and even motor drives where the high surface area of multiple units in parallel approaches the ripple capability of our Type 520C computer-grade capacitor. Type 380LX delivers more capacitance per can size while Type 380L gives lower ESR for the same capacitance rating. Type 382L gives the choice of 4 or 5 leads for stable, reverse proof mounting. 382LX is available with 4 pins.

### Highlights

- ◆ Latest available ratings, worldwide
- ◆ Top performance in power supplies and motor drives
- ◆ Big selection of 46 case sizes
- ◆ 2, 4 and 5 leads available

### Specifications

Operating Temperature:	–40 °C to 85 °C up to 300 V, –25 °C to 85 °C $\geq$ 315 V
Rated Voltage:	16 Vdc to 500 Vdc
Capacitance:	33 $\mu$ F to 120,000 $\mu$ F $\pm$ 20%
Leakage Current:	$\leq 3\sqrt{CV}$ $\mu$ A at 5 min.

#### Ripple Current Multipliers:

#### Ambient Temperature

45 °C	60 °C	70 °C	85 °C
1.5	1.4	1.3	1.0

#### Frequency

	60 Hz	120 Hz	500 Hz	1 kHz	10 kHz & up
16-100 Vdc	0.95	1.00	1.05	1.08	1.15
160-450 Vdc	0.80	1.00	1.20	1.25	1.40

#### EIA Ripple Life:

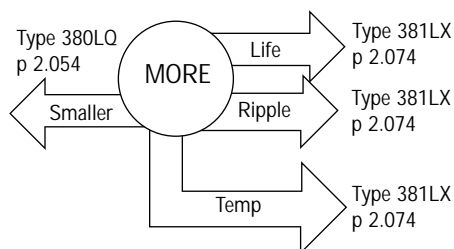
3,000 h @ full load at +85 °C per EIA IS-749  
 $\Delta$  Capacitance  $\pm$ 20%  
ESR 150% of limit  
DCL 100% of limit

#### Shelf Life:

1000 h @ 85 °C, capacitance, ESR and DCL, initial requirements

#### Vibration:

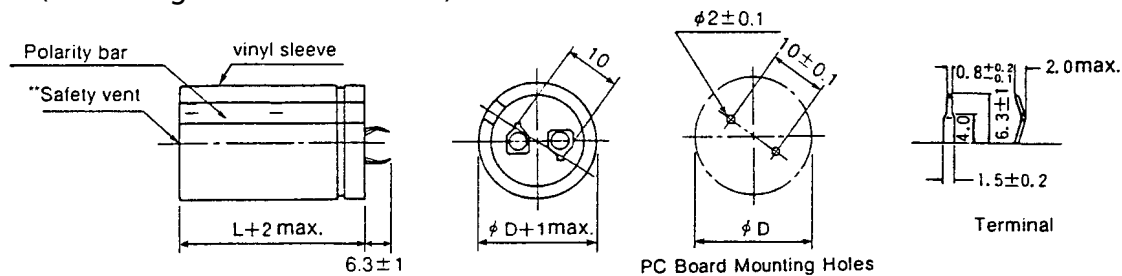
10 to 55 Hz, 0.06" and 10 g max, 2 h in each plane



## Outline Drawings

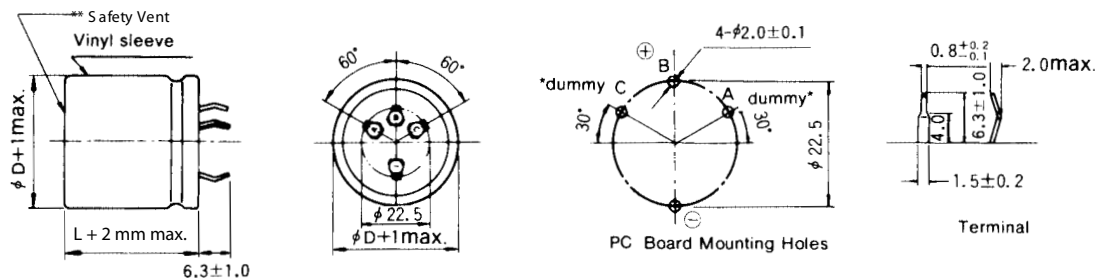
### Two Pins

380L / L X (20 through 40 mm diameter)



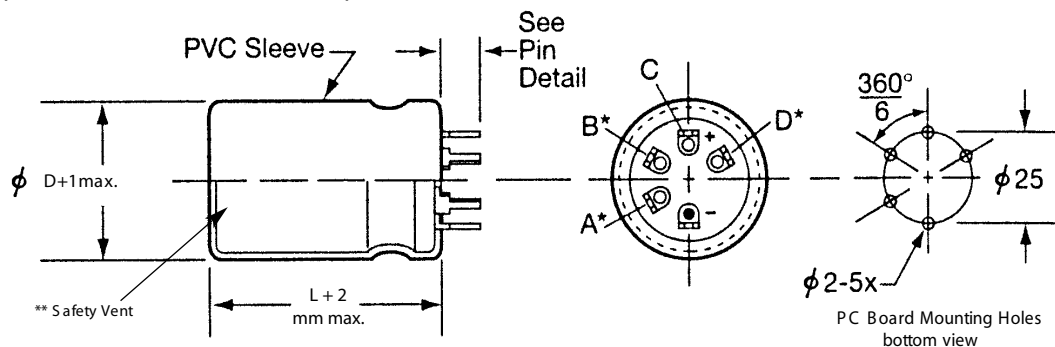
### Four Pins

382L / L X (35 and 40 mm diameter)



### Five Pins

382L (40 and 50 mm diameter)



Terminal	Connection	
	40 mm Dia.	50 mm Dia.
A	dummy	negative (-)
B	dummy	dummy
C	positive (+)	positive (+)
D	dummy	positive (+)
-	negative (-)	negative (-)

V Terminal Standoff Pin Dimensions				
	W <sub>1</sub>	W	P	P <sub>1</sub>
			Edge of can	
Type	P	P <sub>1</sub>	W	W <sub>1</sub>
V	3.75±0.1	0.6 min.	1.5±0.1	0.7

#### Notes:

\* Use dummy terminals for mechanical support only. Make no electrical connection because they resistively connect through the electrolyte to the negative terminal.

\*\* Safety Vent may be on the bottom or on the side of the can.

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# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

## Insulated Case Dimensions

Case Code	DIAMETER "D"		LENGTH "L"		Typical Weight (grams)
	mm	inches	mm	inches	
G01	20	0.79	25	0.98	14
G02	20	0.79	30	1.18	17
G03	20	0.79	35	1.38	19
G04	20	0.79	40	1.57	21
H20	22	0.87	20	0.79	14
H01	22	0.87	25	0.98	16
H02	22	0.87	30	1.18	19
H03	22	0.87	35	1.38	22
H04	22	0.87	40	1.57	24
H45	22	0.87	45	1.77	28
H05	22	0.87	50	1.97	31
J20	25	0.98	20	0.79	16
J01	25	0.98	25	0.98	20
J02	25	0.98	30	1.18	24
J03	25	0.98	35	1.38	27
J45	25	0.98	40	1.57	31
J04	25	0.98	45	1.77	35
J05	25	0.98	50	1.97	38
K20	30	1.18	20	0.79	25
K01	30	1.18	25	0.98	30
K02	30	1.18	30	1.18	35
K03	30	1.18	35	1.38	40
K04	30	1.18	40	1.57	44
K45	30	1.18	45	1.77	48
K05	30	1.18	50	1.97	53

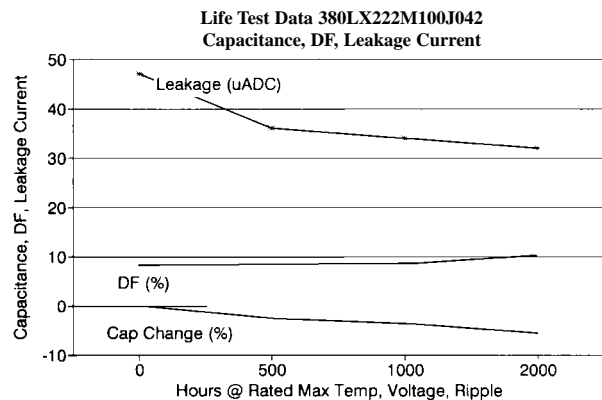
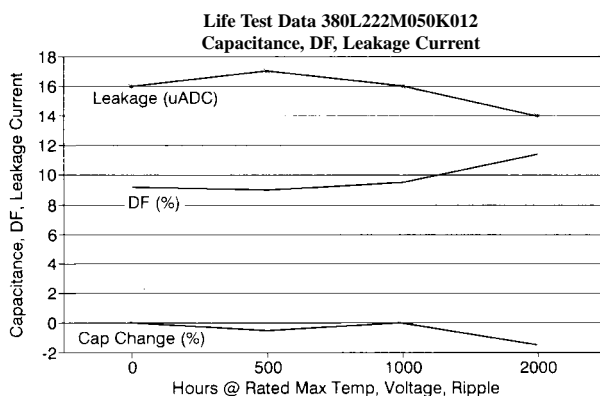
Case Code	DIAMETER "D"		LENGTH "L"		Typical Weight (grams)
	mm	inches	mm	inches	
A20	35	1.38	20	0.79	35
A01	35	1.38	25	0.98	42
A02	35	1.38	30	1.18	48
A03	35	1.38	35	1.38	54
A04	35	1.38	40	1.57	62
A45	35	1.38	45	1.77	67
A05	35	1.38	50	1.97	74
A06	35	1.38	63	2.48	88
A07	35	1.38	70	2.76	98
A08	35	1.38	80	3.15	112
A10	35	1.38	105	4.13	144
N04	40	1.57	40	1.57	82
N05	40	1.57	50	1.97	105
N06	40	1.57	63	2.48	130
N08	40	1.57	80	3.15	185
N10	40	1.57	105	4.13	265
B05	50	1.97	50	1.97	136
B06	50	1.97	63	2.48	168
B08	50	1.97	80	3.15	239
B09	50	1.97	92	3.62	241
B10	50	1.97	105	4.13	325

Aluminum  
Snap-In  
Capacitors

## Part Numbering System

382LX	272	M	200	N05	2	V
Type	Capacitance	Tolerance	Rated Voltage	Case Code	Insulation	382L/LX 5 Pin Mount
380L (2 pins)	272 = 2700 $\mu$ F	M = $\pm$ 20%	Vdc		2 = PVC	blank = 4 pins (35 or 40 mm dia)
380LX (2 pins)	333 = 33000 $\mu$ F					V = 5 pins (40 or 50 mm dia)
382L (4 or 5 pins)						
382LX (4 or 5 pins)						

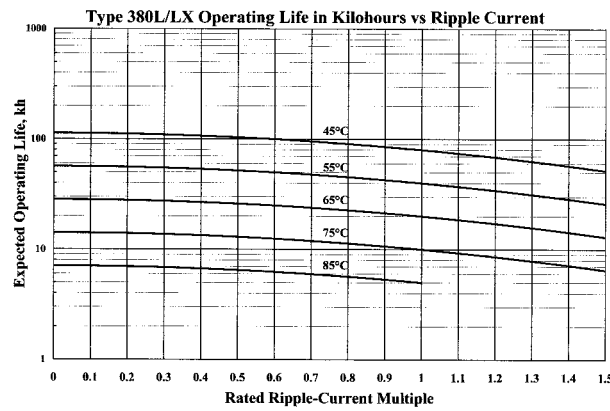
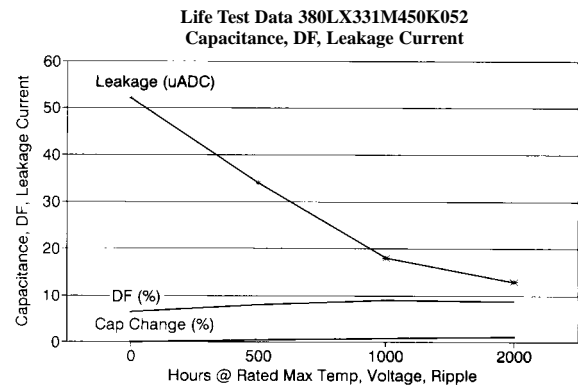
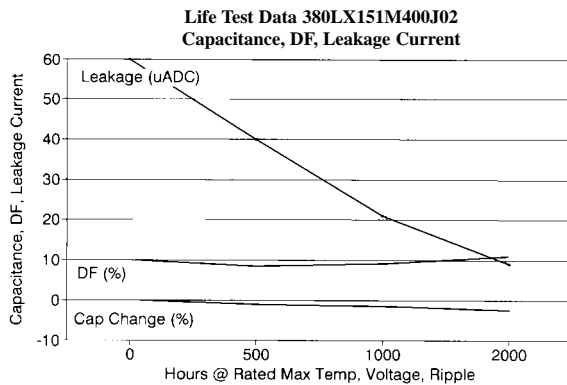
## Typical Performance Curves





# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

## Typical Performance Curves



## Ratings

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C 120 Hz 20 kHz	Ripple Amps Max. @ 85 °C 120 Hz 20 kHz	Nominal Size DxL (mm)
<b>16 Vdc (20 Vdc Surge)</b>				
4700	380L472M016H012	0.099	0.075	1.60 1.80 22x25
4700	380LX472M016H202	0.141	0.107	1.60 1.80 22x20
6800	380L682M016H022	0.068	0.051	1.80 2.10 22x30
6800	380L682M016J012	0.068	0.051	1.80 2.10 25x25
6800	380LX682M016G012	0.098	0.074	3.20 3.70 20x25
6800	380LX682M016J202	0.098	0.074	1.80 2.10 25x20
8200	380LX822M016G022	0.081	0.061	3.50 4.00 20x30
10000	380L103M016H042	0.046	0.035	2.40 2.80 22x40
10000	380L103M016J022	0.046	0.035	2.40 2.80 25x30
10000	380L103M016K012	0.046	0.035	2.40 2.80 30x25
10000	380LX103M016G032	0.066	0.050	3.80 4.40 20x35
10000	380LX103M016H022	0.066	0.050	3.80 4.30 22x30
10000	380LX103M016J012	0.066	0.050	3.80 4.30 25x25
10000	380LX103M016K202	0.066	0.050	2.40 2.80 30x20
12000	380LX123M016G032	0.055	0.042	4.50 5.20 20x35
12000	380LX123M016H022	0.055	0.042	4.50 5.20 22x30
12000	380LX123M016J012	0.055	0.042	4.50 5.20 25x25
15000	380L153M016H052	0.031	0.023	3.20 3.70 22x50
15000	380L153M016J042	0.031	0.023	3.20 3.70 25x40
15000	380L153M016K022	0.031	0.023	3.20 3.70 30x30
15000	380LX153M016G042	0.044	0.033	5.30 6.10 20x40
15000	380LX153M016H032	0.044	0.033	5.30 6.00 22x35
15000	380LX153M016J022	0.044	0.033	5.30 6.00 25x30
15000	380LX153M016A202	0.044	0.033	3.20 3.70 35x20
18000	380LX183M016H042	0.037	0.028	5.60 6.40 22x40
18000	380LX183M016J022	0.037	0.028	5.60 6.40 25x30
22000	380L223M016J052	0.021	0.016	3.60 4.10 25x50

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C 120 Hz 20 kHz	Ripple Amps Max. @ 85 °C 120 Hz 20 kHz	Nominal Size DxL (mm)
<b>16 Vdc (20 Vdc Surge) (cont'd)</b>				
22000	380L223M016K042	0.021	0.016	3.60 4.10 30x40
22000	380L223M016A022	0.021	0.016	3.60 4.10 35x30
22000	380LX223M016H452	0.030	0.023	6.10 7.20 22x45
22000	380LX223M016J032	0.030	0.023	6.10 7.00 25x35
22000	380LX223M016K022	0.030	0.023	6.10 7.00 30x30
27000	380LX273M016J452	0.025	0.019	6.30 7.30 25x45
27000	380LX273M016K032	0.025	0.019	6.30 7.30 30x35
33000	380L333M016K052	0.014	0.011	4.40 5.10 30x50
33000	380L333M016A042	0.014	0.011	4.40 5.10 35x40
33000	380LX333M016J052	0.020	0.015	6.80 7.80 25x50
33000	380LX333M016K042	0.020	0.015	6.80 7.90 30x40
33000	380LX333M016A022	0.020	0.015	6.80 7.90 35x30
39000	380LX393M016K452	0.017	0.013	6.90 7.90 30x45
39000	380LX393M016A032	0.017	0.013	6.90 8.00 35x35
47000	380LX473M016K052	0.018	0.014	7.50 8.60 30x50
47000	380LX473M016A042	0.018	0.014	7.50 8.60 35x40
56000	380LX563M016A452	0.017	0.013	8.70 10.00 35x45
56000	382L563M016N042	0.025	0.016	7.50 8.00 40x40
68000	380LX683M016A052	0.017	0.013	9.00 10.40 35x50
68000	382L683M016N052	0.018	0.010	9.60 10.50 40x50
82000	380LX823M016A062	0.018	0.014	9.90 11.40 35x63
82000	382LX823M016N052	0.019	0.014	10.30 11.80 40x50
100000	380LX104M016A082	0.019	0.010	11.00 12.70 35x80
100000	382LX104M016N062	0.020	0.015	11.40 13.00 40x63
120000	380LX124M016A102	0.014	0.013	12.81 14.73 35x105
120000	382LX124M016B052V	0.014	0.013	13.17 15.15 50x50
120000	382LX124M016N082	0.018	0.014	12.40 14.30 40x80

Aluminum  
Snap-In  
Capacitors



# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
16 Vdc (20 Vdc Surge) (cont'd)						
150000	382LX154M016B062V	0.012	0.011	14.40	16.56	50x63
180000	382LX184M016B082V	0.011	0.010	15.69	18.04	50x80
180000	382LX184M016N102	0.013	0.012	14.85	17.08	40x105
220000	382LX224M016B092V	0.010	0.009	16.73	19.24	50x92
270000	382LX274M016B102V	0.009	0.008	17.79	20.46	50x105
25 Vdc (32 Vdc Surge)						
3300	380L332M025H012	0.121	0.091	1.60	1.80	22x25
3300	380LX332M025H202	0.161	0.122	1.60	1.80	22x20
4700	380L472M025H022	0.085	0.064	1.80	2.10	22x30
4700	380L472M025J012	0.085	0.064	1.80	2.10	25x25
4700	380LX472M025G012	0.113	0.085	3.10	3.50	20x25
4700	380LX472M025J202	0.113	0.085	1.80	2.10	25x20
5600	380LX562M025G022	0.095	0.072	3.40	3.90	20x30
6800	380L682M025H042	0.059	0.045	2.30	2.60	22x40
6800	380L682M025J022	0.059	0.045	2.30	2.60	25x30
6800	380L682M025K012	0.059	0.045	2.30	2.60	30x25
6800	380LX682M025G032	0.078	0.059	3.50	4.00	20x35
6800	380LX682M025H022	0.078	0.059	3.50	4.00	22x30
6800	380LX682M025J012	0.078	0.059	3.50	4.00	25x25
6800	380LX682M025K202	0.078	0.059	2.30	2.60	30x20
8200	380LX822M025G042	0.065	0.049	3.60	4.10	20x40
8200	380LX822M025H022	0.065	0.049	3.60	4.10	22x30
8200	380LX822M025J012	0.065	0.049	3.60	4.10	25x25
10000	380L103M025H052	0.040	0.030	2.70	3.10	22x50
10000	380L103M025J042	0.040	0.030	2.70	3.10	25x40
10000	380L103M025K022	0.040	0.030	2.70	3.10	30x30
10000	380LX103M025H032	0.053	0.040	3.80	4.30	22x35
10000	380LX103M025J022	0.053	0.040	3.80	4.30	25x30
10000	380LX103M025K012	0.053	0.040	3.80	4.30	30x25
10000	380LX103M025A202	0.053	0.040	2.70	3.10	35x20
12000	380LX123M025H042	0.044	0.033	4.10	4.70	22x40
12000	380LX123M025J032	0.044	0.033	4.10	4.70	25x35
12000	380LX123M025K022	0.044	0.033	4.10	4.70	30x30
15000	380L153M025J052	0.027	0.020	3.40	3.90	25x50
15000	380L153M025K042	0.027	0.020	3.40	3.90	30x40
15000	380L153M025A022	0.027	0.020	3.40	3.90	35x30
15000	380LX153M025H052	0.035	0.026	4.60	5.30	22x50
15000	380LX153M025J042	0.035	0.026	4.60	5.30	25x40
15000	380LX153M025K022	0.035	0.026	4.60	5.30	30x30
18000	380LX183M025J452	0.029	0.022	5.50	6.30	25x45
18000	380LX183M025K032	0.029	0.022	5.50	6.30	30x35
22000	380L223M025K052	0.018	0.014	4.20	4.80	30x50
22000	380L223M025A042	0.018	0.014	4.20	4.80	35x40
22000	380LX223M025J052	0.024	0.018	6.10	7.00	25x50
22000	380LX223M025K042	0.024	0.018	6.10	7.00	30x40
27000	380LX273M025K452	0.020	0.015	6.20	7.10	30x45
27000	380LX273M025A03	0.020	0.015	6.20	7.10	35x35
33000	380LX333M025K052	0.016	0.015	6.80	7.90	30x50
33000	380LX333M025A042	0.016	0.015	6.80	7.90	35x40
33000	382L333M025N042	0.026	0.016	7.30	8.00	40x40
39000	380LX393M025A452	0.016	0.012	7.40	8.50	35x45
39000	382LX393M025N042	0.020	0.018	8.00	9.20	40x40
47000	380LX473M025A052	0.015	0.011	8.00	9.20	35x50
47000	380L473M025A062	0.017	0.009	8.30	9.50	35x63
47000	382L473M025N052	0.019	0.012	8.40	9.70	40x50
56000	380L563M025A072	0.015	0.008	9.10	10.30	35x70
56000	382L563M025N062	0.015	0.009	9.50	10.30	40x63
56000	380LX563M025A062	0.017	0.013	8.60	9.90	35x63
56000	382LX563M025N052	0.018	0.014	9.00	10.30	40x50
68000	380LX683M025A082	0.017	0.013	9.40	10.90	35x80
68000	382LX683M025N062	0.018	0.014	9.80	11.20	40x63
82000	382L823M025N082	0.011	0.007	11.20	11.80	40x80
82000	382LX823M025B052V	0.016	0.015	12.29	14.13	50x50
100000	380LX104M025A102	0.010	0.008	11.97	13.77	35x105
100000	382LX104M025B062V	0.014	0.013	13.45	15.47	50x63

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
25 Vdc (32 Vdc Surge) (cont'd)						
100000	382LX104M025N082	0.018	0.014	11.70	13.40	40x80
120000	382LX124M025B082V	0.012	0.011	15.29	17.58	50x80
150000	382LX154M025N102	0.011	0.010	14.07	16.18	40x105
150000	382LX154M025B092V	0.011	0.010	16.01	18.41	50x92
180000	382LX184M025B102V	0.010	0.009	16.89	19.42	50x105
35 Vdc (44 Vdc Surge)						
2200	380L222M035H012	0.151	0.115	1.40	1.60	22x25
2200	380LX222M035H202	0.211	0.160	1.40	1.60	22x20
3300	380L332M035H022	0.100	0.076	1.70	2.00	22x30
3300	380L332M035J012	0.100	0.076	1.70	2.00	25x25
3300	380LX332M035G012	0.141	0.107	2.70	3.10	20x25
3300	380LX332M035J202	0.141	0.107	1.70	2.00	25x20
3900	380LX392M035G022	0.119	0.090	2.90	3.40	20x30
4700	380L472M035H042	0.071	0.054	2.00	2.30	22x40
4700	380L472M035J022	0.071	0.054	2.00	2.30	25x30
4700	380L472M035K012	0.071	0.054	2.00	2.30	30x25
4700	380LX472M035G032	0.099	0.075	3.30	3.70	20x35
4700	380LX472M035H022	0.099	0.075	3.30	3.70	22x30
4700	380LX472M035J012	0.099	0.075	3.30	3.70	25x25
4700	380LX472M035K202	0.099	0.075	2.00	2.30	30x20
5600	380LX562M035G042	0.083	0.063	3.40	3.90	20x40
5600	380LX562M035H022	0.083	0.063	3.40	3.90	22x30
5600	380LX562M035J012	0.083	0.063	3.40	3.90	25x25
6800	380L682M035H052	0.049	0.037	2.40	2.80	22x50
6800	380L682M035J042	0.049	0.037	2.40	2.80	25x40
6800	380L682M035K022	0.049	0.037	2.40	2.80	30x30
6800	380LX682M035H032	0.068	0.051	3.70	4.20	22x35
6800	380LX682M035A202	0.068	0.051	2.40	2.80	35x20
6800	380LX682M035J022	0.069	0.051	3.70	4.20	25x30
8200	380LX822M035H042	0.057	0.043	4.00	4.60	22x40
8200	380LX822M035J032	0.057	0.043	4.00	4.60	25x35
10000	380L103M035J052	0.033	0.025	3.00	3.50	25x50
10000	380L103M035K042	0.033	0.025	3.00	3.50	30x40
10000	380L103M035A022	0.033	0.025	3.00	3.50	35x30
10000	380LX103M035H452	0.046	0.035	4.40	5.10	22x45
10000	380LX103M035J042	0.046	0.035	4.40	5.10	25x40
10000	380LX103M035K022	0.046	0.035	4.40	5.10	30x30
10000	380LX103M035A012	0.046	0.035	4.40	5.10	35x25
12000	380LX123M035J452	0.039	0.029	5.10	5.80	25x45
12000	380LX123M035K032	0.039	0.029	5.10	5.80	30x35
12000	380LX123M035A022	0.039	0.029	5.10	5.80	35x30
15000	380L153M035K052	0.022	0.017	3.70	4.30	30x50
15000	380L153M035A042	0.022	0.017	3.70	4.30	35x40
15000	380LX153M035J052	0.031	0.023	5.60	6.40	25x50
15000	380LX153M035K042	0.031	0.023	5.60	6.40	30x40
15000	380LX153M035A022	0.031	0.023	5.60	6.40	35x30
18000	380LX183M035K452	0.026	0.020	5.70	6.50	30x45
18000	380LX183M035A032	0.026	0.020	5.70	6.50	35x35
22000	380LX223M035K052	0.021	0.016	6.10	7.00	30x50
22000	380LX223M035A042	0.021	0.016	6.10	7.00	35x40
27000	380LX273M035A452	0.017	0.013	6.80	7.90	35x45
27000	382L273M035N042	0.027	0.016	6.70	7.20	40x40
33000	380LX333M035A052	0.014	0.011	7.20	8.30	35x50
33000	380L333M035A062	0.018	0.009	7.80	8.70	35x63
39000	380LX393M035A062	0.015	0.008	7.90	9.10	35x63
39000	380L393M035A072	0.015	0.008	8.60	9.50	35x70
39000	382L393M035N052	0.019	0.012	8.00	8.40	40x50
47000	380LX473M035A082	0.015	0.011	9.50	10.90	35x80
47000	382L473M035N062	0.016	0.009	9.00	9.50	40x63
56000	382LX563M035B052V	0.015	0.012	10.94	12.58	50x50
68000	380LX683M035A102	0.010	0.008	10.62	12.21	35x105
68000	382L683M035N082	0.011	0.007	10.60	11.10	40x80
68000	382LX683M035B062V	0.013	0.011	11.93	13.72	50x63
82000	382LX823M035N102	0.012	0.009	12.02	13.82	40x105
82000	382LX823M035B082V	0.012	0.010	13.06	15.02	50x80

Aluminum  
Snap-In  
Capacitors

# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
35 Vdc (44 Vdc Surge) (cont'd)						
100000	382LX104M035B092V	0.011	0.009	13.97	16.07	50x92
120000	382LX124M03035B102V	0.010	0.008	14.86	17.09	50x105
50 Vdc (63 Vdc Surge)						
1500	380LX152M050H202	0.177	0.134	1.20	1.40	22x20
1500	380L152M050H012	0.177	0.134	1.20	1.40	22x25
2200	380L222M050H022	0.121	0.092	1.40	1.60	22x30
2200	380L222M050J012	0.121	0.092	1.40	1.60	25x25
2200	380LX222M050G012	0.181	0.137	2.30	2.60	20x25
2200	380LX222M050J202	0.181	0.137	1.40	1.60	25x20
2700	380LX272M050G022	0.147	0.111	2.50	2.90	20x30
3300	380L332M050H042	0.080	0.061	1.70	2.00	22x40
3300	380L332M050J022	0.080	0.061	1.70	2.00	25x30
3300	380L332M050K012	0.080	0.061	1.70	2.00	30x25
3300	380LX332M050G032	0.121	0.092	2.70	3.10	20x35
3300	380LX332M050H022	0.121	0.092	2.70	3.10	22x30
3300	380LX332M050J012	0.121	0.092	2.70	3.10	25x25
3300	380LX332M050K202	0.121	0.092	1.70	2.00	30x20
3900	380LX392M050G042	0.102	0.077	2.80	3.20	20x40
3900	380LX392M050H022	0.102	0.077	2.80	3.20	22x30
3900	380LX392M050J012	0.102	0.077	2.80	3.20	25x25
4700	380L472M050H052	0.056	0.042	2.10	2.40	22x50
4700	380L472M050J042	0.056	0.042	2.10	2.40	25x40
4700	380L472M050K022	0.056	0.042	2.10	2.40	30x30
4700	380LX472M050H032	0.085	0.064	3.00	3.50	22x35
4700	380LX472M050J022	0.085	0.064	3.00	3.50	25x30
4700	380LX472M050K012	0.085	0.064	3.00	3.50	30x25
4700	380LX472M050A202	0.085	0.064	2.10	2.40	35x20
5600	380LX562M050H042	0.071	0.054	3.40	3.90	22x40
5600	380LX562M050J032	0.071	0.054	3.40	3.90	25x35
5600	380LX562M050K022	0.071	0.054	3.40	3.90	30x30
6800	380L682M050J052	0.039	0.030	2.60	3.00	25x50
6800	380L682M050K042	0.039	0.030	2.60	3.00	30x40
6800	380L682M050A022	0.039	0.030	2.60	3.00	35x30
6800	380LX682M050H052	0.059	0.045	3.90	4.40	22x50
6800	380LX682M050J042	0.059	0.045	3.90	4.40	25x40
6800	380LX682M050K022	0.059	0.045	3.90	4.40	30x30
8200	380LX822M050J452	0.049	0.037	4.40	5.10	25x45
8200	380LX822M050K032	0.049	0.037	4.40	5.10	30x35
10000	380L103M050K052	0.027	0.020	3.40	3.90	30x50
10000	380L103M050A042	0.027	0.020	3.40	3.90	35x40
10000	380LX103M050J052	0.040	0.030	5.00	5.70	25x50
10000	380LX103M050K042	0.040	0.030	5.00	5.70	30x40
10000	380LX103M050A022	0.040	0.030	5.00	5.70	35x30
12000	380LX123M050K452	0.033	0.025	5.60	6.40	30x45
12000	380LX123M050A032	0.033	0.025	5.60	6.40	35x35
15000	380LX153M050K052	0.027	0.020	6.40	7.40	30x50
15000	380LX153M050A042	0.027	0.020	6.40	7.40	35x40
15000	382L153M050N042	0.028	0.017	6.80	7.20	40x40
18000	380L183M050A062	0.018	0.010	7.80	8.70	35x63
18000	380LX183M050A452	0.022	0.017	6.90	7.90	35x45
18000	382LX183M050N042	0.023	0.017	6.94	7.98	40x40
22000	380L223M050A072	0.015	0.008	8.60	9.50	35x70
22000	380LX223M050A052	0.018	0.014	7.60	8.70	35x50
22000	382L223M050N052	0.020	0.012	7.90	8.40	40x50
27000	380L273M050A082	0.013	0.008	9.30	10.10	35x80
27000	382L273M050N062	0.016	0.009	9.00	9.60	40x63
27000	380LX273M050A062	0.018	0.013	8.30	9.60	35x63
27000	382LX273M050N052	0.021	0.016	8.10	9.30	40x50
33000	380LX273M050A082	0.013	0.010	9.20	10.60	35x80
33000	382LX273M050N062	0.018	0.014	8.90	10.20	35x80
33000	382LX333M050B052V	0.018	0.014	10.48	12.05	50x50
39000	382L393M050N082	0.012	0.007	10.70	11.10	40x80
47000	382LX473M050B062V	0.013	0.010	11.54	13.27	50x63
47000	380LX473M050A102	0.014	0.011	10.27	11.81	35x105
56000	382LX563M050N102	0.012	0.009	11.47	13.19	40x105

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
50 Vdc (63 Vdc Surge) (cont'd)						
56000	382LX563M050B082V	0.012	0.009	12.46	14.33	50x80
68000	382LX683M050B092V	0.011	0.009	13.17	15.15	50x92
82000	382LX823M050B102V	0.011	0.008	13.87	15.95	50x105
63 Vdc (79 Vdc Surge)						
1000	380L102M063H012	0.265	0.200	1.20	1.40	22x25
1000	380LX102M036H202	0.332	0.251	1.20	1.40	22x20
1500	380L152M063H022	0.177	0.134	1.30	1.50	22x30
1500	380L152M063J012	0.177	0.134	1.30	1.50	25x25
1500	380LX152M063J202	0.221	0.167	1.30	1.50	25x20
2200	380L222M063H042	0.121	0.092	1.50	1.70	22x40
2200	380L222M063J022	0.121	0.092	1.50	1.70	25x30
2200	380L222M063K012	0.121	0.092	1.50	1.70	30x25
2200	380LX222M063G032	0.151	0.114	2.50	2.90	20x35
2200	380LX222M063H022	0.151	0.114	2.50	2.90	22x30
2200	380LX222M063J012	0.151	0.114	2.50	2.90	25x25
2200	380LX222M063K202	0.151	0.114	1.50	1.70	30x20
2700	380LX272M063G042	0.123	0.093	3.70	4.30	20x40
2700	380LX272M063H032	0.123	0.093	3.70	4.30	22x35
2700	380LX272M063J022	0.123	0.093	3.70	4.30	25x30
3300	380L332M063H052	0.080	0.061	1.90	2.20	22x50
3300	380L332M063J042	0.080	0.061	1.90	2.20	25x40
3300	380L332M063K022	0.080	0.061	1.90	2.20	30x30
3300	380LX332M063H042	0.100	0.076	4.10	4.70	22x40
3300	380LX332M063J022	0.100	0.076	4.10	4.70	25x30
3300	380LX332M063K012	0.100	0.076	4.10	4.70	30x25
3300	380LX332M063A202	0.100	0.076	1.70	2.00	35x20
3900	380LX392M063H452	0.085	0.064	4.40	5.10	22x45
3900	380LX392M063J032	0.085	0.064	4.40	5.10	25x35
3900	380LX392M063K022	0.085	0.064	4.40	5.10	30x30
4700	380L472M063J052	0.056	0.042	2.30	2.60	25x50
4700	380L472M063K042	0.056	0.042	2.30	2.60	30x40
4700	380L472M063A022	0.056	0.042	2.30	2.60	35x30
4700	380LX472M063H052	0.071	0.054	4.90	5.60	22x50
4700	380LX472M063J042	0.071	0.054	4.90	5.60	25x40
4700	380LX472M063K022	0.071	0.054	4.90	5.60	30x30
4700	380LX472M063A012	0.071	0.054	4.90	5.60	35x25
5600	380LX562M063A022	0.047	0.045	5.40	6.20	35x30
5600	380LX562M063J452	0.059	0.045	5.40	6.20	25x45
5600	380LX562M063K032	0.059	0.045	5.40	6.20	30x35
6800	380L682M063K052	0.039	0.029	3.00	3.50	30x50
6800	380L682M063A042	0.039	0.029	3.00	3.50	35x40
6800	380LX682M063J052	0.049	0.037	5.80	6.70	25x50
6800	380LX682M063K042	0.049	0.037	5.80	6.70	30x40
6800	380LX682M063A022	0.049	0.037	5.80	6.70	35x30
8200	380LX822M063K452	0.040	0.030	6.00	6.90	30x45
8200	380LX822M063A032	0.040	0.030	6.00	6.90	35x35
10000	382L103M063N042	0.028	0.017	6.60	7.20	40x40
10000	380LX103M063A042	0.033	0.025	6.50	7.50	35x40
12000	380L123M063A062	0.019	0.010	7.70	8.60	35x63
12000	380L123M063A052	0.028	0.021	7.20	8.30	35x50
12000	382LX123M063N042	0.035	0.028	7.15	8.22	40x40
15000	380L153M063A072	0.016	0.009	8.50	9.40	35x70
15000	382L153M063N052	0.020	0.012	7.90	8.40	40x50
15000	380LX153M063A062	0.028	0.021	7.70	8.90	35x63
18000	382L183M063N062	0.016	0.010	8.90	9.50	40x63
18000	380LX183M063A082	0.023	0.012	9.40	10.80	35x80
27000	382L273M063N082	0.012	0.008	10.60	11.10	40x80
27000	380LX273M063A102	0.015	0.012	10.38	11.94	35x105
27000	382LX273M063B052V	0.018	0.015	10.86	12.49	50x50
33000	382LX333M063N102	0.015	0.012	11.76	13.52	40x105
33000	382LX333M063B062V	0.017	0.013	11.57	13.42	50x63
47000	382LX473M063B082V	0.013	0.010	12.78	14.70	50x80
51000	382LX513M063B092V	0.012	0.010	13.34	15.34	50x92
56000	382LX563M063B102V	0.012	0.009	13.93	16.02	50x105

Aluminum  
Snap-In  
Capacitors

# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
80 Vdc (100 Vdc Surge)						
680	380L681M080H012	0.293	0.222	1.00	1.20	22x25
680	380LX681M080H202	0.390	0.295	1.00	1.20	22x20
1000	380L102M080H022	0.199	0.151	1.20	1.40	22x30
1000	380L102M080J012	0.199	0.151	1.20	1.40	25x25
1000	380LX102M080J202	0.265	0.200	1.20	1.40	25x20
1500	380L152M080H042	0.133	0.101	1.40	1.60	22x40
1500	380L152M080J022	0.133	0.101	1.40	1.60	25x30
1500	380L152M080K012	0.133	0.101	1.40	1.60	30x25
1500	380LX152M080G032	0.177	0.134	2.30	2.60	20x35
1500	380LX152M080H022	0.177	0.134	2.30	2.60	22x30
1500	380LX152M080J012	0.177	0.134	2.30	2.60	25x25
1500	380LX152M080K202	0.177	0.134	1.40	1.60	30x20
1800	380LX182M080G042	0.147	0.109	2.50	2.90	20x40
1800	380LX182M080H032	0.147	0.109	2.50	2.90	22x35
1800	380LX182M080J022	0.147	0.109	2.50	2.90	25x30
2200	380L222M080H052	0.090	0.068	1.70	2.00	22x50
2200	380L222M080J042	0.090	0.068	1.70	2.00	25x40
2200	380L222M080K022	0.090	0.068	1.70	2.00	30x30
2200	380LX222M080H042	0.121	0.092	2.70	3.10	22x40
2200	380LX222M080J022	0.121	0.092	2.70	3.10	25x30
2200	380LX222M080K012	0.121	0.092	2.70	3.10	30x25
2200	380LX222M080A202	0.121	0.092	1.70	2.00	35x20
2700	380LX272M080H452	0.098	0.056	2.80	3.20	22x45
2700	380LX272M080J032	0.098	0.056	2.80	3.20	25x35
2700	380LX272M080K022	0.098	0.056	2.80	3.20	30x30
3300	380L332M080J052	0.060	0.045	2.10	2.40	25x50
3300	380L332M080K042	0.060	0.045	2.10	2.40	30x40
3300	380L332M080A022	0.060	0.045	2.10	2.40	35x30
3300	380LX332M080H052	0.080	0.061	3.20	3.70	22x50
3300	380LX332M080J042	0.080	0.061	3.20	3.70	25x40
3300	380LX332M080K022	0.080	0.061	3.20	3.70	30x30
3900	380LX392M080J452	0.068	0.052	3.60	4.10	25x45
3900	380LX392M080K032	0.068	0.052	3.60	4.10	30x35
4700	380L472M080K052	0.042	0.032	2.60	3.00	30x50
4700	380L472M080A042	0.042	0.032	2.60	3.00	35x40
4700	380LX472M080J052	0.056	0.042	4.10	4.70	25x50
4700	380LX472M080K042	0.056	0.042	4.10	4.70	30x40
5600	380LX562M080K452	0.047	0.036	4.60	5.20	30x45
5600	380LX562M080A032	0.047	0.036	4.60	5.20	35x35
6800	380LX682M080K052	0.039	0.029	5.20	5.90	30x50
6800	380LX682M080A042	0.039	0.029	5.20	5.90	35x40
8200	380LX822M080A052	0.032	0.024	5.80	6.70	35x50
8200	382L822M080N042	0.035	0.022	6.30	6.80	40x40
10000	380L103M080A062	0.023	0.014	7.30	8.20	35x63
12000	380L123M080A072	0.020	0.012	8.10	9.00	35x70
12000	382L123M080N052	0.025	0.016	7.50	8.00	40x50
15000	380L153M080A082	0.017	0.010	8.80	9.60	35x80
15000	382L153M080N062	0.020	0.013	8.50	9.20	40x63
18000	382L183M080N082	0.014	0.009	10.30	10.80	40x80
18000	382LX183M080B052V	0.023	0.017	10.00	11.50	50x50
22000	380LX223M080A102	0.015	0.011	9.86	11.34	35x105
22000	382LX223M080B062V	0.019	0.014	11.08	12.74	50x63
27000	382LX273M080N102	0.015	0.012	11.35	13.05	40x105
27000	382LX273M080B082V	0.015	0.012	12.33	14.18	50x80
33000	382LX333M080B092V	0.014	0.010	13.37	15.38	50x92
39000	382LX393M080B102V	0.013	0.010	14.34	16.49	50x105
100 Vdc (125 Vdc Surge)						
470	380L471M100H012	0.423	0.320	1.60	1.90	22x25
470	380LX471M100H202	0.564	0.426	1.00	1.20	22x20
680	380L681M100H022	0.293	0.222	1.80	2.10	22x30
680	380L681M100J012	0.293	0.222	1.80	2.10	25x25
680	380LX681M100J202	0.390	0.295	1.10	1.30	25x20
1000	380L102M100H042	0.199	0.151	2.50	2.80	22x40
1000	380L102M100J022	0.199	0.151	2.30	2.70	25x30

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
100 Vdc (125 Vdc Surge) (cont'd)						
1000	380L102M100K012	0.199	0.151	2.40	2.80	30x25
1000	380LX102M100G032	0.265	0.200	2.00	2.30	20x35
1000	380LX102M100H022	0.265	0.200	2.00	2.30	22x30
1000	380LX102M100J012	0.265	0.200	2.00	2.30	25x25
1000	380LX102M100K202	0.265	0.200	1.20	1.40	30x20
1200	380LX122M100G042	0.221	0.167	2.30	2.70	20x40
1200	380LX122M100H032	0.221	0.167	2.30	2.70	22x35
1200	380LX122M100J022	0.221	0.167	2.30	2.70	25x30
1500	380L152M100H052	0.133	0.101	3.30	3.80	22x50
1500	380L152M100J042	0.133	0.101	3.20	3.70	25x40
1500	380L152M100K022	0.133	0.101	3.20	3.70	30x30
1500	380LX152M100G052	0.144	0.093	2.57	2.96	20x50
1500	380LX152M100H042	0.177	0.134	2.60	3.00	22x40
1500	380LX152M100J022	0.177	0.134	2.60	3.00	25x30
1500	380LX152M100K012	0.177	0.134	2.60	3.00	30x25
1500	380LX152M100A202	0.177	0.134	1.50	1.70	35x20
1800	380LX182M100H452	0.147	0.109	2.80	3.30	22x45
1800	380LX182M100J032	0.147	0.109	2.80	3.30	25x35
1800	380LX182M100K022	0.147	0.109	2.80	3.30	30x30
2200	380L222M100J052	0.090	0.068	4.30	5.00	25x50
2200	380L222M100K042	0.090	0.068	4.40	5.00	30x40
2200	380L222M100A022	0.090	0.068	4.30	4.90	35x30
2200	380LX222M100H052	0.121	0.092	3.10	3.60	22x50
2200	380LX222M100J042	0.121	0.092	3.10	3.60	25x40
2200	380LX222M100K022	0.121	0.092	3.10	3.60	30x30
2200	380LX222M100A012	0.121	0.078	3.14	3.61	35x25
2700	380LX272M100J452	0.098	0.074	3.70	4.30	25x45
2700	380LX272M100K032	0.098	0.074	3.70	4.30	30x35
2700	380LX272M100A022	0.104	0.068	3.71	4.27	35x30
3300	380L332M100K052	0.060	0.045	5.90	6.80	30x50
3300	380L332M100A042	0.060	0.045	5.90	6.70	35x40
3300	380LX332M100J052	0.080	0.061	4.10	4.70	25x50
3300	380LX332M100K042	0.080	0.061	4.10	4.70	30x40
3900	380LX392M100K452	0.068	0.052	4.50	5.20	30x45
3900	380LX392M100A032	0.068	0.052	4.50	5.20	35x35
4700	380LX472M100K052	0.056	0.042	5.10	5.90	30x50
4700	380LX472M100A042	0.056	0.042	5.10	5.90	35x40
5600	382LX562M100N042	0.036	0.023	6.20	6.70	40x40
5600	380LX562M100A452	0.047	0.036	5.80	6.70	35x45
6800	380L682M100A062	0.024	0.014	7.20	8.10	35x63
6800	382L682M100N052	0.026	0.017	7.40	7.90	40x50
6800	380LX682M100A052	0.039	0.029	6.60	7.60	35x50
8200	380L822M100A072	0.021	0.012	8.00	8.90	35x70
8200	382L822M100N062	0.021	0.013	8.40	9.10	40x63
8200	380LX822M100A062	0.040	0.030	7.00	8.10	35x63
8200	382LX822M100N052	0.040	0.030	7.30	8.40	40x63
10000	380LX103M100A082	0.018	0.010	8.70	9.60	35x80
10000	382LX103M100N062	0.033	0.025	8.00	9.20	40x63
10000	382LX103M100B052V	0.033	0.025	8.82	10.14	50x50
12000	382L123M100N082	0.015	0.009	10.30	10.80	40x80
12000	380LX123M100A102	0.028	0.021	8.57	9.86	35x105
15000	382LX153M100N102	0.022	0.017	10.12	11.64	40x105
15000	382LX153M100B062V	0.022	0.017	10.07	11.58	50x63
18000	382LX183M100B082V	0.018	0.014	11.00	12.65	50x80
22000	382LX223M100B092V	0.015	0.011	11.76	13.52	50x92
27000	382LX273M100B102V	0.014	0.010	12.53	14.41	50x105
160 Vdc (200 Vdc Surge)						
180	380L181M160H012	1.105	0.564	1.10	1.50	22x25
220	380LX221M160H202	0.904	0.461	0.80	1.10	22x20
270	380L271M160H022	0.737	0.376	1.40	1.90	22x30
270	380LX271M160J202	0.737	0.376	0.90	1.20	25x20
270	380L127M160J012	0.737	0.376	1.40	1.90	25x25
330	380LX331M160G022	0.603	0.308	1.50	2.00	20x30
330	380LX331M160H012	0.603	0.308	1.50	2.00	22x25
390	380LX391M160H012	0.468	0.234	1.62	2.27	22x25

# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
160 Vdc (200 Vdc Surge) (cont'd)						
390	380LX391M160G032	0.510	0.260	1.60	2.30	20x35
390	380LX391M160H022	0.510	0.260	1.60	2.30	22x30
390	380L391M160H042	0.510	0.260	1.80	2.60	22x40
390	380LX391M160J012	0.510	0.260	1.60	2.30	25x25
390	380L391M160J022	0.510	0.260	1.80	2.60	25x30
390	380LX391M160K202	0.510	0.260	1.10	1.50	30x20
390	380L391M160K012	0.510	0.260	1.80	2.60	30x25
470	380LX471M160H022	0.423	0.216	2.10	3.00	22x30
470	380LX471M160J012	0.423	0.216	2.10	3.00	25x25
560	380LX561M160H022	0.355	0.178	2.25	3.15	22x30
560	380LX561M160H032	0.355	0.181	2.30	3.20	22x35
560	380L561M160H052	0.355	0.181	2.40	3.30	22x50
560	380LX561M160J012	0.355	0.178	2.25	3.15	25x25
560	380LX561M160J022	0.355	0.181	2.30	3.20	25x30
560	380L561M160J042	0.355	0.181	2.40	3.30	25x40
560	380LX561M160K012	0.355	0.181	2.30	3.20	30x25
560	380L561M160K022	0.355	0.181	2.30	3.20	30x30
560	380LX561M160A202	0.355	0.181	1.30	1.80	35x20
680	380LX681M160H032	0.293	0.146	2.50	3.50	22x35
680	380LX681M160H042	0.293	0.149	2.50	3.50	22x40
680	380LX681M160J022	0.293	0.146	2.50	3.50	25x30
680	380LX681M160J032	0.293	0.149	2.50	3.50	25x35
680	380LX681M160K012	0.293	0.149	2.50	3.50	30x25
820	380LX821M160H042	0.243	0.131	2.75	3.85	22x40
820	380LX821M160H452	0.243	0.124	2.80	3.90	22x45
820	380LX821M160J032	0.243	0.124	2.80	3.90	25x35
820	380L821M160J052	0.243	0.124	3.20	4.50	25x50
820	380LX821M160K012	0.243	0.131	2.75	3.85	30x25
820	380LX821M160K022	0.243	0.124	2.80	3.90	30x30
820	380L821M160K042	0.243	0.124	3.20	4.50	30x40
820	380L821M160A022	0.243	0.124	3.10	4.40	35x30
1000	380LX102M160J452	0.199	0.102	3.00	4.20	25x45
1000	380LX102M160K032	0.199	0.102	3.00	4.20	30x35
1000	380LX102M160A022	0.199	0.102	4.30	6.00	35x30
1000	380LX102M160H452	0.216	0.108	3.00	4.20	22x45
1000	380LX102M160J042	0.216	0.108	3.00	4.20	25x40
1000	380LX102M160K022	0.216	0.108	3.00	4.20	30x30
1200	380LX122M160J052	0.166	0.085	3.30	4.60	25x50
1200	380LX122M160K032	0.166	0.085	3.30	4.60	30x35
1200	380L122M160K052	0.166	0.085	4.20	5.90	30x50
1200	380LX122M160A022	0.166	0.085	3.70	5.20	35x30
1200	380L122M160A042	0.166	0.085	3.30	4.60	35x40
1500	380LX152M160K452	0.133	0.068	3.70	5.20	30x45
1500	380LX152M160A032	0.133	0.068	4.20	5.90	35x35
1500	380LX152M160J052	0.166	0.091	3.73	5.22	25x50
1500	380LX152M160A022	0.166	0.091	3.73	5.22	35x30
1800	380LX182M160K052	0.111	0.057	4.20	5.90	30x50
1800	380LX182M160A042	0.111	0.057	4.80	6.70	35x40
1800	380LX182M160A032	0.138	0.083	4.20	5.88	35x35
2200	380LX222M160A452	0.090	0.046	5.50	7.60	35x45
2200	380LX222M160K052	0.105	0.053	4.78	6.69	30x50
2200	380LX222M160A042	0.105	0.053	4.78	6.69	35x40
2700	380LX272M160A052	0.074	0.038	5.50	7.60	35x50
3300	380LX332M160A072	0.054	0.027	4.80	6.20	35x70
3300	382L332M160N062	0.054	0.027	5.00	6.50	40x63
3900	380LX392M160A082	0.046	0.023	5.40	7.10	35x80
4700	382L472M160N082	0.036	0.020	6.60	8.50	40x80
180 Vdc (225 Vdc Surge)						
180	380L181M180H012	1.105	0.564	0.80	1.10	22x25
270	380L271M180H022	0.737	0.376	1.00	1.30	22x30
270	380L271M180J012	0.737	0.376	1.00	1.30	25x25
330	380LX331M180G022	0.603	0.308	1.80	2.50	20x30
330	380LX331M180H012	0.603	0.308	1.80	2.50	22x25
330	380L331M180H032	0.603	0.308	1.00	1.40	22x35
330	380L331M180J022	0.603	0.308	1.00	1.40	25x30

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
180 Vdc (225 Vdc Surge) (cont'd)						
390	380LX391M180G032	0.510	0.260	1.20	1.60	20x35
390	380LX391M180H022	0.510	0.260	1.20	1.60	22x30
390	380L391M180H042	0.510	0.260	1.20	1.60	22x40
390	380LX391M180J012	0.510	0.260	1.20	1.60	25x25
390	380L391M180J032	0.510	0.260	1.20	1.60	25x35
390	380L391M180K012	0.510	0.260	1.20	1.60	30x25
470	380LX471M180G042	0.423	0.216	2.10	2.90	20x40
470	380LX471M180H032	0.423	0.216	2.10	2.90	22x35
470	380LX471M180J012	0.423	0.216	2.10	2.90	25x25
560	380LX561M180H032	0.355	0.181	2.30	3.20	22x35
560	380L561M180H052	0.355	0.181	1.40	1.90	22x50
560	380LX561M180J022	0.355	0.181	2.30	3.20	25x30
560	380L561M180J042	0.355	0.181	1.40	1.90	25x40
560	380L561M180K022	0.355	0.181	1.40	1.90	30x30
560	380L561M180A012	0.355	0.181	1.40	1.90	35x25
680	380LX681M180H042	0.293	0.149	2.50	3.50	22x40
680	380LX681M180J032	0.293	0.149	2.50	3.50	25x35
680	380LX681M180K022	0.293	0.149	2.50	3.50	30x30
820	380LX821M180H452	0.243	0.124	2.80	3.90	22x45
820	380LX821M180J042	0.243	0.124	2.80	3.90	25x40
820	380L821M180J052	0.243	0.124	1.60	2.20	25x50
820	380LX821M180K022	0.243	0.124	2.80	3.90	30x30
820	380L821M180K042	0.243	0.124	1.60	2.20	30x40
820	380L821M180A022	0.243	0.124	1.60	2.20	35x30
1000	380LX102M180J452	0.199	0.102	3.00	4.20	25x45
1000	380LX102M180K032	0.199	0.102	3.00	4.20	30x35
1200	380LX122M180J052	0.166	0.085	3.30	4.60	25x50
1200	380LX122M180K042	0.166	0.085	3.30	4.60	30x40
1200	380L122M180K052	0.166	0.085	2.00	2.80	30x50
1200	380LX122M180A032	0.166	0.085	3.30	4.60	35x35
1200	380L122M180A042	0.166	0.085	2.00	2.80	35x40
1500	380LX152M180K452	0.133	0.068	3.80	5.40	30x45
1500	380LX152M180A042	0.133	0.068	3.80	5.40	35x40
1800	380LX182M180K052	0.111	0.057	4.30	6.00	30x50
1800	380LX182M180A042	0.111	0.057	4.30	6.00	35x40
2200	380LX222M180A052	0.090	0.046	4.90	6.90	35x50
2700	382L272M180N062	0.051	0.027	5.00	6.50	40x63
2700	380L272M180A072	0.054	0.027	4.80	6.20	35x70
3300	380L332M180A082	0.046	0.023	5.40	7.10	35x80
4700	382L472M180N082	0.036	0.020	6.60	8.50	40x80
200 Vdc (250 Vdc Surge)						
150	380LX151M200H202	1.326	0.677	0.70	0.90	22x20
150	380L151M200H012	1.326	0.677	1.00	1.50	22x25
220	380L221M200H012	0.904	0.461	1.10	1.60	22x25
220	380L221M200H022	0.904	0.461	1.20	1.70	22x30
220	380LX221M200J202	0.904	0.461	0.90	1.20	25x20
220	380L221M200J012	0.904	0.461	1.20	1.70	25x25
270	380LX271M200G022	0.737	0.376	1.40	2.00	20x30
270	380LX271M200H012	0.737	0.376	1.40	2.00	22x25
330	380LX331M200H012	0.553	0.249	1.56	2.18	22x25
330	380LX331M200G032	0.603	0.308	1.60	2.20	20x35
330	380LX331M200H022	0.603	0.308	1.60	2.20	22x30
330	380L331M200H042	0.603	0.308	1.70	2.40	22x40
330	380LX331M200J012	0.603	0.308	1.60	2.20	25x25
330	380L331M200J022	0.603	0.308	1.60	2.30	25x30
330	380LX331M200K202	0.603	0.308	1.00	1.40	30x20
330	380L331M200K012	0.603	0.308	1.70	2.40	30x25
390	380LX391M200H022	0.510	0.260	1.70	2.40	22x30
390	380LX391M200J012	0.510	0.260	1.70	2.40	25x25
470	380LX471M200G042	0.388	0.175	1.85	2.59	20x40
470	380LX471M200H032	0.423	0.216	1.90	2.60	22x35
470	380L471M200H052	0.423	0.216	2.30	3.20	22x50
470	380LX471M200J022	0.423	0.216	1.90	2.60	25x30
470	380L471M200J042	0.423	0.216	2.20	3.10	25x40
470	380LX471M200K012	0.423	0.216	1.90	2.60	30x25

Aluminum  
Snap-In  
Capacitors



# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
200 Vdc (250 Vdc Surge) (cont'd)						
470	380L471M200K022	0.423	0.216	2.20	3.00	30x30
470	380LX471M200A202	0.423	0.216	1.30	1.80	35x20
560	380LX561M200J022	0.326	0.147	2.43	3.40	25x30
560	380LX561M200H042	0.355	0.181	2.40	3.40	22x40
560	380LX561M200J032	0.355	0.181	2.40	3.40	25x35
560	380LX561M200K012	0.355	0.181	2.40	3.40	30x25
680	380LX681M200H452	0.293	0.149	2.70	3.80	22x45
680	380LX681M200J032	0.293	0.149	2.70	3.80	25x35
680	380L681M200J052	0.293	0.149	2.90	4.10	25x50
680	380LX681M200K022	0.293	0.149	2.70	3.80	30x30
680	380L681M200K042	0.293	0.149	2.90	4.10	30x40
680	380L681M200A022	0.293	0.149	2.90	4.10	35x30
820	380LX821M200K022	0.222	0.100	2.93	4.10	30x30
820	380LX821M200J452	0.243	0.124	2.90	4.10	25x45
820	380LX821M200K032	0.243	0.124	2.90	4.10	30x35
820	380LX821M200A012	0.243	0.124	2.90	4.10	35x25
1000	380LX102M200J452	0.199	0.090	3.25	4.55	25x45
1000	380LX102M200J052	0.199	0.102	3.30	4.60	25x50
1000	380LX102M200K032	0.199	0.090	3.25	4.55	30x35
1000	380LX102M200K042	0.199	0.102	3.30	4.60	30x40
1000	380L102M200K052	0.199	0.102	3.90	5.40	30x50
1000	380LX102M200A022	0.199	0.102	3.30	4.60	35x30
1000	380L102M200A042	0.199	0.102	3.90	5.40	35x40
1200	380LX122M200K042	0.166	0.075	3.50	4.90	30x40
1200	380LX122M200K452	0.166	0.085	3.50	4.90	30x45
1200	380LX122M200A022	0.166	0.075	3.50	4.90	35x30
1200	380LX122M200A032	0.166	0.085	3.50	4.90	35x35
1200	380L122M200A052	0.166	0.085	4.70	6.50	35x50
1500	380LX152M200K052	0.133	0.068	3.90	5.40	30x50
1500	380LX152M200A042	0.133	0.068	3.90	5.40	35x40
1500	380LX152M200K452	0.144	0.072	3.87	5.42	30x45
1500	380LX152M200A032	0.144	0.072	3.87	5.42	35x35
1800	380LX182M200A452	0.111	0.057	4.30	6.00	35x45
1800	380LX182M200K052	0.120	0.060	4.32	6.05	30x50
1800	380LX182M200A042	0.120	0.060	4.32	6.05	35x40
2200	380LX222M200A052	0.090	0.046	4.90	6.90	35x50
2200	380LX222M200A452	0.098	0.054	4.92	6.89	35x45
2200	382LX222M200N042	0.098	0.054	4.92	6.89	40x40
2700	382L272M200N062	0.051	0.027	5.00	6.50	40x63
2700	380L272M200A072	0.054	0.027	4.80	6.20	35x70
2700	380LX272M200A062	0.092	0.027	5.40	7.60	35x63
2700	382LX272M200N052	0.092	0.046	5.40	7.60	40x50
3300	380LX332M200A082	0.075	0.038	5.90	8.30	35x80
3300	382LX332M200N062	0.075	0.038	5.90	8.30	40x63
3900	382LX392M200B052V	0.055	0.030	8.22	9.45	50x50
3900	382LX392M200N082	0.064	0.033	6.40	9.00	40x80
4700	382LX472M200N082	0.046	0.025	8.38	11.73	40x80
4700	382LX472M200B062V	0.046	0.025	9.32	13.05	50x63
5600	380LX562M200A102	0.038	0.021	8.90	12.46	35x105
6800	382LX682M200N102	0.032	0.017	8.65	12.11	40x105
6800	382LX682M200B082V	0.032	0.017	11.41	15.97	50x80
7500	382LX752M200B092V	0.029	0.016	12.28	17.19	50x92
8200	382LX822M200B102V	0.026	0.014	13.16	18.42	50x105
250 Vdc (300 Vdc Surge)						
120	380LX121M250H202	1.658	0.846	0.50	0.60	22x20
120	380L121M250H012	1.658	0.846	0.60	0.90	22x25
150	380L151M250H022	1.326	0.677	0.90	1.20	22x30
150	380LX151M250J202	1.326	0.677	0.70	0.90	25x20
150	380L151M250J012	1.326	0.677	0.90	1.20	25x25
180	380LX181M250G022	1.105	0.546	1.10	1.50	20x30
180	380LX181M250H012	1.105	0.546	1.10	1.50	22x25
220	380LX221M250H012	0.754	0.301	1.17	1.64	22x25
220	380LX221M250G032	0.904	0.461	1.20	1.60	20x35
220	380LX221M250H022	0.904	0.461	1.20	1.60	22x30

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
250 Vdc (300 Vdc Surge) (cont'd)						
220	380L221M250H042	0.904	0.461	1.00	1.40	22x40
220	380LX221M250J012	0.904	0.461	1.20	1.60	25x25
220	380L221M250J022	0.904	0.461	1.00	1.40	25x30
220	380LX221M250K202	0.904	0.461	0.90	1.20	30x20
220	380L221M250K012	0.904	0.461	1.00	1.40	30x25
270	380LX271M250H022	0.737	0.376	1.30	1.80	22x30
270	380LX271M250J012	0.737	0.376	1.30	1.80	25x25
330	380LX331M250H032	0.603	0.308	1.80	2.50	22x35
330	380L331M250H052	0.603	0.308	1.40	1.90	22x50
330	380LX331M250J022	0.603	0.308	1.80	2.50	25x30
330	380L331M250J042	0.603	0.308	1.30	1.90	25x40
330	380LX331M250K012	0.603	0.308	1.80	2.50	30x25
330	380L331M250K022	0.603	0.308	1.30	1.90	30x30
330	380LX331M250A202	0.603	0.308	1.10	1.50	35x20
390	380LX391M250J022	0.468	0.187	1.91	2.67	25x30
390	380LX391M250H042	0.510	0.260	1.90	2.70	22x40
390	380LX391M250J032	0.510	0.260	1.90	2.70	25x35
390	380LX391M250K012	0.510	0.260	1.90	2.70	30x25
470	380LX471M250K012	0.353	0.141	2.11	2.95	30x25
470	380LX471M250H452	0.423	0.216	2.10	3.00	22x45
470	380LX471M250J032	0.423	0.216	2.10	3.00	25x35
470	380LX471M250J042	0.423	0.216	2.10	3.00	25x40
470	380L471M250J052	0.423	0.216	1.80	2.50	25x50
470	380LX471M250K022	0.423	0.216	2.10	3.00	30x30
470	380L471M250K042	0.423	0.216	1.80	2.50	30x40
470	380L471M250A022	0.423	0.216	1.70	2.40	35x30
560	380LX561M250J042	0.326	0.130	2.25	3.15	25x40
560	380LX561M250K022	0.326	0.130	2.25	3.15	30x30
560	380LX561M250J452	0.355	0.181	2.30	3.20	25x45
560	380LX561M250K032	0.355	0.181	2.30	3.20	30x35
560	380LX561M250A012	0.355	0.181	2.30	3.20	35x25
680	380LX681M250J452	0.268	0.107	2.50	3.50	25x45
680	380LX681M250K032	0.268	0.107	2.50	3.50	30x35
680	380LX681M250J052	0.293	0.149	2.50	3.50	25x50
680	380LX681M250K042	0.293	0.149	2.50	3.50	30x40
680	380L681M250K052	0.293	0.149	2.40	3.30	30x50
680	380LX681M250A022	0.293	0.149	2.50	3.50	35x30
680	380L681M250A042	0.293	0.149	2.30	3.30	35x40
820	380LX821M250K042	0.222	0.089	2.77	3.88	30x40
820	380LX821M250A022	0.222	0.089	2.77	3.88	35x30
820	380LX821M250K452	0.243	0.124	2.80	3.90	30x45
820	380LX821M250A032	0.243	0.124	2.80	3.90	35x35
1000	380LX102M250K452	0.182	0.073	3.32	4.65	30x45
1000	380LX102M250A032	0.182	0.073	3.32	4.65	35x35
1000	380LX102M250K052	0.199	0.102	3.30	4.60	30x50
1000	380LX102M250A042	0.199	0.102	3.30	4.60	35x40
1000	380L102M250A052	0.199	0.102	3.10	4.40	35x50
1200	380LX122M250A042	0.166	0.083	3.53	4.94	35x40
1200	380LX122M250A452	0.166	0.085	3.50	4.90	35x45
1500	380LX152M250A052	0.133	0.068	4.00	5.70	35x50
1500	382LX152M250N042	0.133	0.066	4.04	5.66	40x40
1800	382L182M250N062	0.062	0.030	4.80	6.40	40x63
1800	380L182M250A072	0.066	0.030	4.50	6.20	35x70
1800	380LX182M250A062	0.138	0.073	4.50	6.20	35x63
1800	382LX182M250N052	0.138	0.073	4.50	6.30	40x50
2200	380LX222M250A082	0.113	0.057	4.90	6.90	35x80
2200	382LX222M250N062	0.113	0.057	4.90	6.90	40x63
2700	382L272M250N082	0.043	0.021	6.30	8.40	40x80
2700	382LX272M250B052V	0.074	0.037	6.77	7.79	50x50
3300	382LX332M250N082	0.060	0.030	7.00	9.80	40x80
3300	382LX332M250B062V	0.060	0.030	7.79	10.91	50x63
3900	380LX392M250A102	0.051	0.026	7.47	10.46	35x105
4700	382LX472M250N102	0.042	0.021	8.88	12.43	40x105
4700	382LX472M250B082V	0.042	0.021	9.65	13.51	50x80
5600	382LX562M250B092V	0.036	0.018	10.80	15.12	50x92
6800	382LX682M250B102V	0.029	0.015	12.16	17.02	50x105

# Types 380L, 380LX, and 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
315 Vdc (365 Vdc Surge)						
100	380LX101M315G022	1.989	1.015	0.90	1.30	20x30
100	380LX101M315H012	1.989	1.015	0.90	1.30	22x25
120	380LX121M315G042	1.658	0.856	1.00	1.40	20x40
120	380LX121M315H022	1.658	0.856	1.00	1.40	22x30
120	380LX121M315J012	1.658	0.856	1.00	1.40	25x25
150	380LX151M315H022	1.326	0.677	1.10	1.60	22x30
150	380LX151M315J012	1.326	0.677	1.10	1.60	25x25
180	380LX181M315H032	1.105	0.546	1.20	1.70	22x35
180	380LX181M315J022	1.105	0.546	1.20	1.70	25x30
180	380LX181M315K012	1.105	0.546	1.20	1.70	30x25
220	380LX221M315H042	0.904	0.461	1.40	2.00	22x40
220	380LX221M315J032	0.904	0.461	1.40	2.00	25x35
220	380LX221M315K012	0.904	0.461	1.40	2.00	30x25
270	380LX271M315H452	0.737	0.376	1.60	2.20	22x45
270	380LX271M315J042	0.737	0.376	1.60	2.20	25x40
270	380LX271M315K022	0.737	0.376	1.60	2.20	30x30
330	380LX331M315J452	0.603	0.308	1.80	2.50	25x45
330	380LX331M315K022	0.603	0.308	1.80	2.50	30x30
330	380LX331M315A012	0.603	0.308	1.80	2.50	35x25
390	380LX391M315J052	0.510	0.260	2.00	2.80	25x50
390	380LX391M315K032	0.510	0.260	2.00	2.80	30x35
390	380LX391M315A022	0.510	0.260	2.00	2.80	35x30
470	380LX471M315K042	0.423	0.216	2.30	3.20	30x40
470	380LX471M315A032	0.423	0.216	2.30	3.20	35x35
560	380LX561M315K452	0.355	0.181	2.60	3.60	30x45
560	380LX561M315A032	0.355	0.181	2.60	3.60	35x35
680	380LX681M315A452	0.293	0.149	2.90	4.00	35x45
820	380LX821M315A052	0.243	0.124	3.30	4.60	35x50
820	382L821M315N042	0.285	0.172	2.40	3.10	40x40
1000	380L102M315A062	0.218	0.129	2.70	3.60	35x63
1200	380L122M315A072	0.182	0.107	3.20	4.20	35x70
1200	382L122M315N052	0.202	0.122	2.90	3.90	40x50
1500	380L152M315A082	0.153	0.090	3.60	4.80	35x80
1500	382L152M315N062	0.162	0.098	3.40	4.50	40x63
1800	382L182M315N082	0.113	0.069	4.50	6.00	40x80
350 Vdc (400 Vdc Surge)						
56	380L560M350H012	3.553	1.812	0.30	0.40	22x25
68	380L680M350H012	2.926	1.493	0.30	0.40	22x25
82	380LX820M350H012	2.022	0.708	0.83	1.16	22x25
82	380LX820M350G022	2.426	1.238	0.80	1.20	20x30
82	380LX820M350H012	2.426	1.238	0.80	1.20	22x25
82	380L820M350H022	2.426	1.238	0.40	0.50	22x30
82	380L820M350J012	2.426	1.238	0.40	0.50	25x25
100	380LX101M350G032	1.989	1.015	0.90	1.30	20x35
100	380L101M350H022	1.989	1.015	0.40	0.50	22x30
100	380LX101M350H022	1.989	1.015	0.90	1.30	22x30
120	380LX121M350H022	1.382	0.484	1.00	1.40	22x30
120	380LX121M350H022	1.658	0.846	1.00	1.40	22x30
120	380L121M350H032	1.658	0.846	0.50	0.70	22x35
120	380LX121M350J012	1.658	0.846	1.00	1.40	25x25
120	380L121M350J022	1.658	0.846	0.50	0.70	25x30
120	380L121M350K012	1.658	0.846	0.50	0.70	30x25
150	380LX151M350J012	1.105	0.387	1.12	1.57	25x25
150	380LX151M350H032	1.326	0.677	1.10	1.60	22x35
150	380L151M350H042	1.326	0.677	0.50	0.70	22x40
150	380LX151M350J022	1.326	0.677	1.10	1.60	25x30
150	380L151M350J012	1.326	0.677	0.50	0.70	25x35
150	380L151M350K012	1.326	0.677	0.50	0.70	30x25
150	380LX151M350K012	1.326	0.677	1.10	1.60	30x25
180	380LX181M350J022	0.921	0.322	1.22	1.71	25x30
180	380LX181M350H042	1.105	0.546	1.20	1.70	22x40
180	380LX181M350J032	1.105	0.546	1.20	1.70	25x35
180	380L181M350J042	1.105	0.546	0.60	0.80	25x40
180	380LX181M350K012	1.105	0.546	1.20	1.70	30x25
180	380L181M350K022	1.105	0.546	0.60	0.80	30x30

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
350 Vdc (400 Vdc Surge) (cont'd)						
220	380LX221M350J032	0.754	0.264	1.44	2.02	25x35
220	380LX221M350K012	0.754	0.264	1.44	2.02	30x25
220	380LX221M350H452	0.904	0.461	1.40	2.00	22x45
220	380L221M350H052	0.904	0.461	0.70	0.90	22x50
220	380LX221M350J042	0.904	0.461	1.40	2.00	25x40
220	380L221M350J052	0.904	0.461	0.70	0.90	25x50
220	380LX221M350K022	0.904	0.461	1.40	2.00	30x30
220	380L221M350K032	0.904	0.461	0.70	0.90	30x35
220	380L221M350A012	0.904	0.461	0.70	0.90	35x25
220	380LX221M350A012	0.904	0.461	1.40	2.00	35x25
270	380LX271M350J042	0.614	0.215	1.66	2.32	25x40
270	380LX271M350K022	0.614	0.215	1.66	2.32	30x30
270	380LX271M350A012	0.614	0.215	1.66	2.32	35x25
270	380LX271M350J452	0.737	0.376	1.70	2.30	25x45
270	380L271M350J052	0.737	0.376	0.80	1.10	25x50
270	380LX271M350K032	0.737	0.376	1.70	2.30	30x35
270	380LX271M350K042	0.737	0.376	0.80	1.10	30x40
270	380LX271M350A012	0.737	0.376	1.70	2.30	35x25
270	380LX271M350A022	0.737	0.376	1.70	2.30	35x30
330	380LX331M350K032	0.502	0.178	1.88	2.63	30x35
330	380LX331M350J052	0.603	0.308	1.90	2.60	25x50
330	380LX331M350K042	0.603	0.308	1.90	2.60	30x40
330	380L331M350K052	0.603	0.308	0.80	1.10	30x50
330	380LX331M350A022	0.603	0.308	1.90	2.60	35x30
330	380L331M350A032	0.603	0.308	0.80	1.10	35x35
390	380LX391M350J052	0.425	0.149	2.06	2.88	25x50
390	380LX391M350K042	0.425	0.149	2.06	2.88	30x40
390	380LX391M350A022	0.425	0.149	2.06	2.88	35x30
390	380LX391M350K452	0.510	0.260	2.10	2.90	30x45
390	380L391M350K052	0.510	0.260	0.90	1.20	30x50
390	380LX391M350A032	0.510	0.260	2.10	2.90	35x35
390	380L391M350A042	0.510	0.260	0.90	1.20	35x40
470	380LX471M350A032	0.353	0.123	2.40	3.36	35x35
470	380LX471M350K052	0.423	0.216	2.40	3.40	30x50
470	380LX471M350A042	0.423	0.216	2.40	3.40	35x40
560	380LX561M350K052	0.326	0.114	2.60	3.64	30x50
560	380LX561M350A042	0.326	0.114	2.60	3.64	35x40
560	380LX561M350A452	0.355	0.181	2.60	3.60	35x45
680	380LX681M350A452	0.293	0.117	2.96	4.14	35x45
680	380LX681M350A052	0.293	0.149	3.00	4.10	35x50
680	382L681M350N042	0.331	0.179	2.00	3.00	40x40
820	380LX821M350A052	0.243	0.097	3.55	4.97	35x50
820	380L821M350A062	0.254	0.134	2.40	3.50	35x63
1000	380L102M350A072	0.212	0.112	2.80	4.00	35x70
1000	380LX102M350A062	0.249	0.127	3.20	4.50	35x63
1000	382LX102M350N052	0.249	0.127	3.20	4.50	40x50
1200	380LX122M350A082	0.207	0.106	3.60	5.10	35x80
1200	382LX122M350N062	0.207	0.106	3.60	5.10	40x63
1200	382LX122M350B052V	0.207	0.093	5.18	5.96	50x50
1500	382LX152M350B062V	0.166	0.075	6.01	8.41	50x63
1800	382L182M350N082	0.132	0.072	4.00	5.70	40x80
1800	380LX182M350A102	0.138	0.062	5.79	8.11	35x105
1800	382LX182M350B082V	0.138	0.062	6.89	9.65	50x80
2200	382LX222M350N102	0.113	0.051	6.91	9.67	40x105
2200	382LX222M350B092V	0.113	0.051	7.79	10.91	50x92
2700	382LX272M350B102V	0.092	0.041	8.80	12.32	50x105
400 Vdc (450 Vdc Surge)						
47	380LX470M400H202	4.233	2.160	0.30	0.40	22x20
47	380L470M400H012	4.233	2.160	0.50	0.80	22x25
68	380LX680M400G022	2.926	1.493	0.80	1.10	20x30
68	380LX680M400H012	2.926	1.493	0.80	1.10	22x25
68	380L680M400H022	2.926	1.493	0.70	1.00	22x30
68	380LX680M400J202	2.926	1.493	0.40	0.50	25x20
68	380L680M400J012	2.926	1.493	0.70	1.00	25x25
82	380LX820M400G022	2.426	1.238	0.80	1.20	20x30

Aluminum  
Snap-In  
Capacitors

# Types 380L, 382L, 380LX & 382LX, 85 °C High-Capacitance Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size D x L (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
400 Vdc (450 Vdc Surge) (cont'd)						
82	380LX820M400H012	2.426	1.238	0.80	1.20	22x25
100	380LX101M400G032	1.989	1.050	0.90	1.30	20x35
100	380LX101M400H022	1.989	1.050	0.90	1.30	22x30
100	380LX101M400H042	1.989	1.050	0.90	1.30	22x40
100	380LX101M400J012	1.989	1.050	0.90	1.30	25x25
100	380LX101M400J022	1.989	1.050	0.90	1.30	25x30
100	380LX101M400K202	1.989	1.050	0.50	0.70	30x20
100	380LX101M400K012	1.989	1.050	0.90	1.30	30x25
120	380LX121M400J012	1.382	0.484	1.02	1.43	25x25
120	380LX121M400G042	1.658	0.846	1.00	1.40	20x40
120	380LX121M400H032	1.658	0.846	1.00	1.40	22x35
120	380LX121M400J022	1.658	0.846	1.00	1.40	25x30
150	380LX151M400H042	1.326	0.677	1.20	1.60	22x40
150	380LX151M400H052	1.326	0.677	1.30	1.80	22x50
150	380LX151M400J022	1.326	0.677	1.20	1.60	25x30
150	380LX151M400J042	1.326	0.677	1.30	1.80	25x40
150	380LX151M400K012	1.326	0.677	1.20	1.60	30x25
150	380LX151M400K022	1.326	0.677	1.20	1.70	30x30
150	380LX151M400A202	1.326	0.677	0.60	0.80	35x20
180	380LX181M400J022	0.921	0.322	1.44	2.02	25x30
180	380LX181M400H452	1.105	0.546	1.40	2.00	22x45
180	380LX181M400J032	1.105	0.546	1.40	2.00	25x35
180	380LX181M400K022	1.105	0.546	1.40	2.00	30x30
220	380LX221M400H052	0.904	0.461	1.50	2.10	22x50
220	380LX221M400J042	0.904	0.461	1.50	2.10	25x40
220	380LX221M400J052	0.904	0.461	1.70	2.40	25x50
220	380LX221M400K022	0.904	0.461	1.50	2.10	30x30
220	380LX221M400K042	0.904	0.461	1.70	2.40	30x40
220	380LX221M400A022	0.904	0.461	1.60	2.30	35x30
270	380LX271M400J452	0.737	0.376	1.70	2.30	25x45
270	380LX271M400K032	0.737	0.376	1.70	2.30	30x35
270	380LX271M400K052	0.737	0.371	2.00	2.90	30x50
270	380LX271M400A022	0.737	0.376	1.70	2.30	35x30
270	380LX271M400A042	0.737	0.376	2.00	2.90	35x40
330	380LX331M400A022	0.553	0.193	1.90	2.66	35x30
330	380LX331M400K042	0.603	0.308	1.90	2.70	30x40
330	380LX331M400A032	0.603	0.308	1.90	2.70	35x35
390	380LX391M400A032	0.468	0.164	2.13	2.98	35x35
390	380LX391M400K452	0.510	0.260	2.10	3.00	30x45
390	380LX391M400A042	0.510	0.260	2.10	3.00	35x40
390	380LX391M400A052	0.510	0.260	2.70	3.80	35x50
470	380LX471M400A042	0.388	0.136	2.39	3.35	35x40
470	380LX471M400A452	0.423	0.216	2.40	3.30	35x45
560	380LX561M400A452	0.326	0.114	2.69	3.77	35x45
560	382L561M400N042	0.334	0.189	2.40	3.10	40x40
560	380LX561M400A052	0.355	0.216	2.70	3.80	35x50
680	380LX681M400A052	0.295	0.148	2.90	4.10	35x50
820	380LX821M400A072	0.214	0.118	3.20	4.20	35x70
820	380LX821M400A062	0.222	0.078	3.55	4.97	35x63
820	382LX821M400N052	0.303	0.155	3.20	4.50	40x50
1000	380LX102M400A082	0.179	0.099	3.60	4.80	35x80
1000	382LX102M400B052V	0.199	0.080	4.76	5.47	50x50
1000	382LX102M400N062	0.249	0.127	3.40	4.80	40x63
1200	380LX122M400A082	0.152	0.053	4.52	6.33	35x80
1200	382LX122M400N062	0.152	0.053	4.52	6.33	40x63
1200	382LX122M400B062V	0.166	0.066	5.47	7.66	50x63
1500	380LX152M400A102	0.122	0.043	5.44	7.62	35x105
1500	382LX152M400N082	0.133	0.075	4.50	6.00	40x80
1500	382LX152M400B082V	0.133	0.053	6.47	9.06	50x80
1800	382LX182M400N102	0.101	0.035	6.53	9.14	40x105
1800	382LX182M400B092V	0.111	0.044	7.35	10.29	50x92
2200	382LX222M400B102V	0.090	0.036	8.43	11.80	50x105
450 Vdc (500 Vdc Surge)						
33	380LX330M450H202	6.029	3.080	0.20	0.30	22x20
33	380LX330M450H012	6.029	3.080	0.50	0.70	22x25

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size D x L (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
450 Vdc (500 Vdc Surge) (cont'd)						
47	380LX470M450H022	4.233	2.160	0.60	0.80	22x30
47	380LX470M450J022	4.233	2.160	0.30	0.40	25x20
47	380LX470M450J012	4.233	2.160	0.60	0.80	25x25
56	380LX560M450G022	3.553	1.813	0.70	1.00	20x30
56	380LX560M450H012	3.553	1.813	0.70	1.00	22x25
68	380LX680M450G032	2.926	1.493	0.80	1.10	20x35
68	380LX680M450H022	2.926	1.493	0.80	1.10	22x30
68	380LX680M450H042	2.926	1.493	0.80	1.10	22x40
68	380LX680M450J022	2.926	1.493	0.80	1.10	25x30
68	380LX680M450K202	2.926	1.493	0.40	0.50	30x20
68	380LX680M450K012	2.926	1.493	0.80	1.10	30x25
82	380LX820M450G032	2.426	1.238	0.80	1.20	20x35
82	380LX820M450H022	2.426	1.238	0.80	1.20	22x30
82	380LX820M450J012	2.426	1.238	0.80	1.20	25x25
100	380LX101M450H032	1.989	1.015	0.90	1.30	22x35
100	380LX101M450H052	1.989	1.015	1.10	1.50	22x50
100	380LX101M450J022	1.989	1.015	0.90	1.30	25x30
100	380LX101M450J042	1.989	1.015	1.00	1.40	25x40
100	380LX101M450K012	1.989	1.015	0.90	1.30	30x25
100	380LX101M450K022	1.989	1.015	1.00	1.40	30x30
100	380LX101M450A202	1.989	1.015	0.50	0.70	35x20
120	380LX121M450H042	1.658	0.859	1.00	1.50	22x40
120	380LX121M450J022	1.658	0.859	1.00	1.50	25x30
120	380LX121M450K012	1.658	0.859	1.00	1.50	30x25
150	380LX151M450H052	1.326	0.677	1.20	1.70	22x50
150	380LX151M450J042	1.326	0.677	1.20	1.70	25x40
150	380LX151M450J052	1.326	0.677	1.40	1.90	25x50
150	380LX151M450K022	1.326	0.677	1.20	1.70	30x30
150	380LX151M450K042	1.326	0.677	1.40	1.90	30x40
150	380LX151M450A022	1.326	0.677	1.40	1.90	35x30
180	380LX181M450J042	0.921	0.368	1.35	1.89	25x40
180	380LX181M450K022	0.921	0.368	1.35	1.89	30x30
180	380LX181M450J452	1.105	0.564	1.40	1.90	25x45
180	380LX181M450K032	1.105	0.564	1.40	1.90	30x35
180	380LX181M450A012	1.105	0.564	1.40	1.90	35x25
220	380LX221M450J452	0.754	0.301	1.55	2.17	25x45
220	380LX221M450K032	0.754	0.301	1.55	2.17	30x35
220	380LX221M450J052	0.904	0.461	1.60	2.20	25x50
220	380LX221M450K042	0.904	0.461	1.60	2.20	30x40
220	380LX221M450K052	0.904	0.461	1.90	2.60	30x50
220	380LX221M450A022	0.904	0.461	1.60	2.20	35x30
220	380LX221M450A042	0.904	0.461	1.90	2.60	35x40
270	380LX271M450A022	0.614	0.246	1.78	2.49	35x30
270	380LX271M450K452	0.737	0.376	1.80	2.50	30x45
270	380LX271M450A032	0.737	0.376	1.80	2.50	35x35
330	380LX331M450A032	0.553	0.221	2.01	2.81	35x35
330	380LX331M450K052	0.603	0.308	2.00	2.80	30x50
330	380LX331M450A042	0.603	0.308	2.00	2.80	35x40
330	380LX331M450A052	0.603	0.308	2.50	3.50	35x50
390	380LX391M450A452	0.510	0.260	2.20	3.10	35x45
470	380LX471M450A452	0.423	0.233	2.53	3.54	35x45
470	380LX471M450A052	0.423	0.216	2.50	3.50	35x50
470	382LX471M450N042	0.423	0.233	2.53	3.54	40x40
560	382L561M450N052	0.250	0.135	2.90	3.90	40x50
560	380L561M450A062	0.271	0.143	2.70	3.60	35x63
560	380LX561M450A052	0.355	0.171	2.50	3.50	35x50
680	382L681M450N062	0.201	0.109	3.40	4.50	40x63
680	380L681M450A072	0.226	0.120	3.20	4.20	35x70
680	382LX681M450N052	0.366	0.187	3.00	4.20	40x50
820	380L821M450A082	0.189	0.100	3.60	4.80	35x80
820	382LX821M450B052V	0.263	0.145	4.31	4.96	50x50
820	382LX821M450N062	0.303	0.153	3.20	4.50	40x63
1000	382LX102M450B062V	0.216	0.119	4.96	6.94	50x63
1200	382LX122M450N082	0.140	0.077	4.50	6.00	40x80
1200	380LX122M450A102	0.166	0.091	4.80	6.72	35x105
1200	382LX122M450B082V	0.180	0.099	5.71	7.99	50x80

Aluminum  
Snap-In  
Capacitors



# Types 380L, 380LX, and 382LX, 85 °C High-Capacitance Snap-In

Cap. μF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
450 Vdc (500 Vdc Surge) (cont'd)						
1500	382LX152M450N102V	0.133	0.073	5.81	8.13	40x105
1500	382LX152M450B092V	0.144	0.079	6.55	9.17	50x92
1800	382LX182M450B102V	0.120	0.066	7.38	10.30	50x105
500 Vdc (550 Vdc Surge)						
33	380LX330M500H012	3.850	2.353	0.60	0.80	22x25
47	380LX470M500H012	2.800	1.716	0.60	0.80	22x25
47	380LX470M500J012	2.830	1.742	0.60	0.80	25x25
56	380LX560M500H032	2.250	1.352	0.70	1.00	22x35
56	380LX560M500H022	2.980	1.184	0.70	0.98	22x30
68	380LX680M500H042	1.860	1.109	0.80	1.10	22x40
68	380LX680M500J022	2.080	1.284	0.80	1.10	25x30
68	380LX680M500H032	2.438	0.975	0.78	1.09	22x35
68	380LX680M500J012	2.438	0.975	0.78	1.09	25x25
82	380LX820M500J032	1.630	1.006	0.90	1.20	25x35
82	380LX820M500K012	1.960	1.186	0.90	1.20	30x25
82	380LX820M500H042	2.022	0.809	0.88	1.23	22x40
82	380LX820M500J022	2.022	0.809	0.88	1.23	25x30
100	380LX101M500H052	1.280	0.785	1.00	1.20	22x50
100	380LX101M500J042	1.340	0.828	1.10	1.50	25x40
100	380LX101M500K022	1.440	0.871	1.10	1.50	30x30
100	380LX101M500A012	1.580	0.962	1.10	1.50	35x25
100	380LX101M500H452	1.658	0.663	0.99	1.39	22x45
100	380LX101M500J032	1.658	0.663	0.99	1.39	25x35
120	380LX121M500K032	1.130	0.683	1.40	1.90	30x35
120	380LX121M500A022	1.160	0.707	1.40	1.90	35x30
120	380LX121M500H052	1.382	0.553	1.13	1.58	22x50
120	380LX121M500J042	1.382	0.553	1.13	1.58	25x40
120	380LX121M500K022	1.382	0.553	1.13	1.58	30x30
150	380LX151M500K042	0.926	0.562	1.60	2.20	30x40
150	380LX151M500J052	0.945	0.585	1.40	1.90	25x50
150	380LX151M500J452	1.105	0.442	1.29	1.80	25x45

Cap. μF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 85 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
500 Vdc (550 Vdc Surge) (cont'd)						
150	380LX151M500A012	1.105	0.442	1.29	1.80	35x25
180	380LX181M500A032	0.912	0.555	1.60	2.20	35x35
180	380LX181M500J052	0.921	0.388	1.38	1.93	25x50
180	380LX181M500A022	0.921	0.388	1.38	1.93	35x30
220	380LX221M500K052	0.654	0.397	2.00	2.70	30x50
220	380LX221M500A042	0.749	0.456	1.90	2.50	35x40
220	380LX221M500K452	0.754	0.339	1.50	2.10	30x45
220	380LX221M500A032	0.754	0.339	1.50	2.10	35x35
270	380LX271M500A052	0.529	0.322	2.30	3.10	35x50
270	382L271M500N042	0.549	0.342	2.40	3.20	40x40
270	380LX271M500A042	0.614	0.278	1.76	2.46	35x40
330	380LX331M500A452	0.502	0.251	1.99	2.79	35x45
330	382LX331M500N042	0.502	0.276	1.99	2.79	40x40
390	382L391M500N052	0.388	0.242	2.90	3.90	40x50
390	380LX391M500A062	0.423	0.257	2.70	3.60	35x63
390	380LX391M500A052	0.425	0.234	2.22	3.11	35x50
470	382L471M500N062	0.311	0.194	3.40	4.50	40x63
470	380LX471M500A062	0.353	0.194	2.58	3.61	35x63
470	380LX471M500A072	0.353	0.215	3.20	4.20	35x70
470	382LX471M500N052	0.353	0.194	2.70	3.78	40x50
560	380LX561M500A082	0.295	0.179	3.60	4.80	35x80
560	382LX561M500N062	0.326	0.179	3.11	4.35	40x63
560	382LX561M500B052V	0.355	0.195	3.52	4.05	50x50
680	382L681M500N082	0.218	0.135	4.50	6.00	40x80
680	380LX681M500N0822	0.244	0.134	3.21	4.49	35x80
680	382LX681M500B062V	0.293	0.161	4.07	5.70	50x63
820	380LX821M500A102	0.202	0.111	3.97	5.56	35x105
820	382LX821M500N082	0.222	0.122	3.88	5.43	40x80
1000	382LX102M500B082V	0.199	0.109	5.05	7.07	50x80
1200	382LX122M500N102	0.152	0.084	5.90	8.26	40x105
1200	382LX122M500B092V	0.166	0.091	5.74	8.04	50x92
1500	382LX152M500B102V	0.144	0.079	6.65	9.31	50x105

Aluminum  
Snap-In  
Capacitors

# Type 381LQ, 105 °C Compact, High-Ripple Snap-in

## 23% Smaller for Same Capacitance



Type 381LQ is on average 23% smaller and more than 5 mm shorter than Type 381L. This is achieved with a new can-closure method that permits installing capacitor elements into smaller cans. Approaching the robust capability of the 381L, the new 381LQ enables you to shrink equipment size and retain the original performance.

## Highlights

- ♦ New, more capacitance per case
- ♦ Compare to Type 381L

## Specifications

**Operating Temperature:**

-40°C to + 105°C <250Vdc

-25°C to + 105°C >350Vdc

**Rated Voltage:**

160 to 450 Vdc

**Capacitance:**

100 µF to 3300 µF ± 20%

**Leakage Current:**

≤ 3  $\sqrt{CV}$  µA, 4 mA max, 5 minutes

**Ripple Current Multipliers:**

**Ambient Temperature**

45 °C	60 °C	70 °C	85 °C	105 °C
2.35	2.2	2.0	1.7	1.0

**Frequency**

50 Hz	60 Hz	120 Hz	500 Hz	1 kHz	10 kHz & up
0.95	0.98	1.00	1.20	1.25	1.40

**Load Life:**

2000 h at full load at 105 °C

Δ Capacitance ±10%

ESR 125% of limit

DCL 100% of limit

**EIA Ripple Life:**

8000 h at 85 °C, full load per EIA IS-749

Δ Capacitance ±10%

ESR 200% of limit

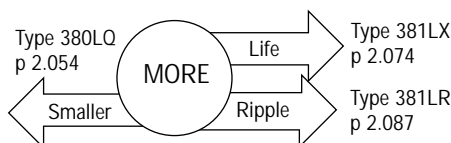
DCL 100% of limit

**Shelf Life:**

1000 h at 105 °C, Δ capacitance ± 10%, ESR 200% of limit, DCL 100% of limit

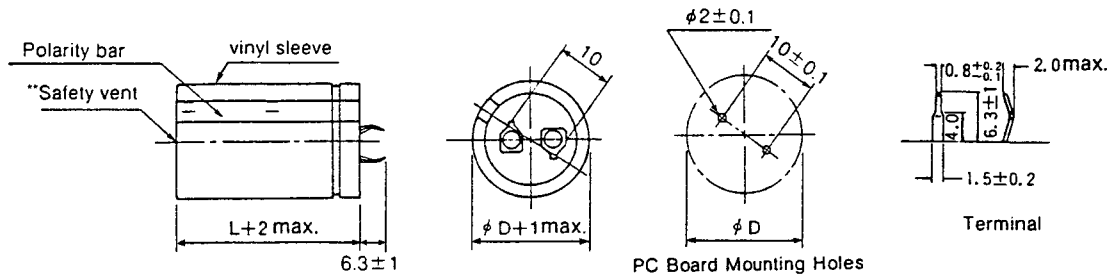
**Vibration:**

10 to 55 Hz, 0.06" and 10 g max, 2 h each plane



# Type 381LQ, 105 °C Compact, High-Ripple Snap-in

## Outline Drawings



## Insulated Case Dimensions

Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)	Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)
	mm	inches	mm	inches			mm	inches	mm	inches	
H01	22	0.87	25	0.98	16	K01	30	1.18	25	0.98	30
H02	22	0.87	30	1.18	19	K02	30	1.18	30	1.18	35
H03	22	0.87	35	1.38	22	K03	30	1.18	35	1.38	40
H04	22	0.87	40	1.57	24	K04	30	1.18	40	1.57	44
H45	22	0.87	45	1.77	28	K45	30	1.18	45	1.77	49
H05	22	0.87	50	1.97	31	K05	30	1.18	50	1.97	53
J01	25	0.98	25	0.98	20	A01	35	1.38	25	0.98	42
J02	25	0.98	30	1.18	24	A02	35	1.38	30	1.18	48
J03	25	0.98	35	1.38	27	A03	35	1.38	35	1.38	54
J04	25	0.98	40	1.57	31	A04	35	1.38	40	1.57	60
J45	25	0.98	45	1.77	35	A45	35	1.38	45	1.77	67
J05	25	0.98	50	1.97	38	A05	35	1.38	50	1.97	74

Aluminum  
Snap-In  
Capacitors

## Part Numbering System

381LQ  
Type

471  
Capacitance  
471 = 470  $\mu\text{F}$   
332 = 3300  $\mu\text{F}$

M  
Tolerance  
M =  $\pm 20\%$

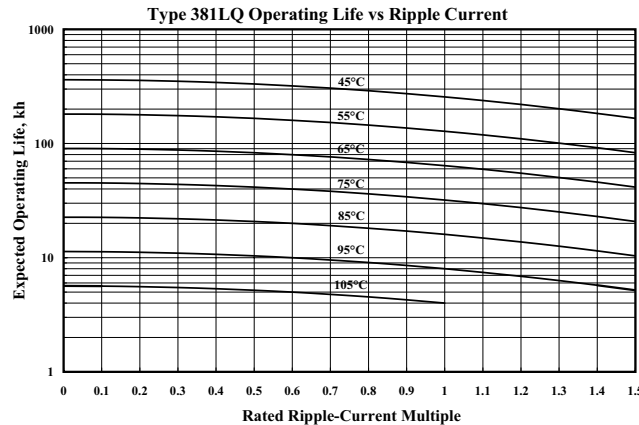
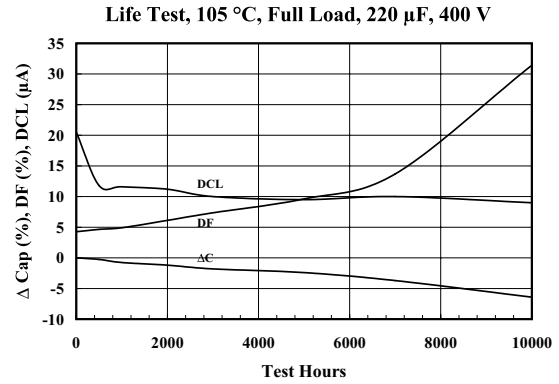
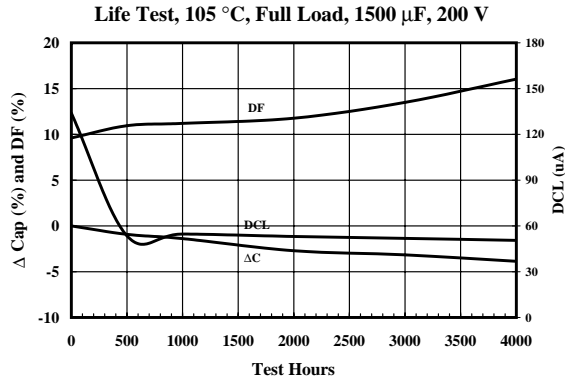
160  
Rated Voltage  
160 = 160 V  
450 = 450 V

H01  
Case Code

2  
Insulation  
2 = PVC

# Type 381LQ, 105 °C Compact, High-Ripple Snap-in

## Typical Performance Curves



## Ratings

Cap. ( $\mu$ F)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz ( $\Omega$ )	20 kHz ( $\Omega$ )	120 Hz (A)	20 kHz (A)	
160 Vdc (200 Vdc Surge)						
470	381LQ471M160H012	0.423	0.190	1.40	1.96	22 x 25
560	381LQ561M160H022	0.355	0.160	1.50	2.10	22 x 30
680	381LQ681M160H022	0.293	0.132	1.70	2.38	22 x 30
680	381LQ681M160J012	0.293	0.132	1.70	2.38	25 x 25
820	381LQ821M160H032	0.243	0.109	2.00	2.80	22 x 35
820	381LQ821M160J022	0.243	0.109	2.00	2.80	25 x 30
1000	381LQ102M160H042	0.199	0.090	2.20	3.08	22 x 40
1000	381LQ102M160J032	0.199	0.090	2.20	3.08	25 x 35
1000	381LQ102M160K012	0.216	0.108	2.20	3.08	30 x 25
1200	381LQ122M160H452	0.166	0.075	2.30	3.22	22 x 45
1200	381LQ122M160J042	0.166	0.075	2.30	3.22	25 x 40
1200	381LQ122M160A012	0.180	0.090	2.30	3.22	35 x 25
1500	381LQ152M160J452	0.133	0.060	2.50	3.50	25 x 45
1500	381LQ152M160K032	0.133	0.060	2.50	3.50	30 x 35
1500	381LQ152M160A022	0.155	0.077	2.50	3.50	35 x 30
1800	381LQ182M160J052	0.110	0.055	2.70	3.78	25 x 50
1800	381LQ182M160K042	0.110	0.055	2.70	3.78	30 x 40
1800	381LQ182M160A022	0.120	0.060	2.70	3.78	35 x 30
2200	381LQ222M160K452	0.090	0.045	2.90	4.06	30 x 45
2200	381LQ222M160A032	0.098	0.049	2.90	4.06	35 x 35
2700	381LQ272M160K052	0.080	0.040	3.10	4.34	30 x 50
2700	381LQ272M160A042	0.086	0.043	3.10	4.34	35 x 40
3300	381LQ332M160A052	0.070	0.042	3.30	4.62	35 x 50
180 Vdc (225 Vdc Surge)						
560	381LQ561M180H022	0.355	0.160	1.50	2.10	22 x 30
560	381LQ561M180J012	0.355	0.160	1.50	2.10	25 x 25

Cap. ( $\mu$ F)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz ( $\Omega$ )	20 kHz ( $\Omega$ )	120 Hz (A)	20 kHz (A)	
680	381LQ681M180H032	0.293	0.132	1.70	2.38	22 x 35
680	381LQ681M180J022	0.293	0.132	1.70	2.38	25 x 30
820	381LQ821M180H042	0.243	0.109	2.00	2.80	22 x 40
820	381LQ821M180J022	0.243	0.109	2.00	2.80	25 x 30
820	381LQ821M180K012	0.243	0.109	2.00	2.80	30 x 25
1000	381LQ102M180H452	0.199	0.090	2.20	3.08	22 x 45
1000	381LQ102M180J042	0.199	0.090	2.20	3.08	25 x 40
1000	381LQ102M180K022	0.199	0.090	2.20	3.08	30 x 30
1000	381LQ102M180A012	0.216	0.097	2.20	3.08	35 x 25
1200	381LQ122M180J452	0.166	0.075	2.30	3.22	25 x 45
1200	381LQ122M180K032	0.166	0.075	2.30	3.22	30 x 35
1500	381LQ152M180J052	0.133	0.060	2.50	3.50	25 x 50
1500	381LQ152M180K042	0.133	0.060	2.50	3.50	30 x 40
1500	381LQ152M180A022	0.155	0.077	2.50	3.50	35 x 30
1800	381LQ182M180K452	0.110	0.050	2.70	3.78	30 x 45
1800	381LQ182M180A032	0.129	0.064	2.70	3.78	35 x 35
2200	381LQ222M180K052	0.090	0.041	2.90	4.06	30 x 50
2200	381LQ222M180A042	0.098	0.049	2.90	4.06	35 x 40
2700	381LQ272M180A052	0.086	0.043	3.10	4.34	35 x 50
<b>200 Vdc (250 Vdc Surge)</b>						
390	381LQ391M200H012	0.510	0.230	1.31	1.83	22 x 25
470	381LQ471M200H022	0.423	0.190	1.45	2.03	22 x 30
560	381LQ561M200H022	0.355	0.160	1.67	2.34	22 x 30
680	381LQ681M200H042	0.293	0.132	1.75	2.45	22 x 40
680	381LQ681M200J022	0.293	0.132	1.75	2.45	25 x 30
820	381LQ821M200H452	0.243	0.109	2.04	2.86	22 x 45
820	381LQ821M200J032	0.243	0.109	2.04	2.86	25 x 35
820	381LQ821M200K012	0.243	0.109	2.04	2.86	30 x 25
1000	381LQ102M200H052	0.199	0.090	2.30	3.22	22 x 50

# Type 381LQ, 105 °C Compact, High-Ripple Snap-in

Cap. (µF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
1000	381LQ102M200J452	0.199	0.090	2.30	3.22	25 x 45
1000	381LQ102M200K022	0.199	0.090	2.30	3.22	30 x 30
1000	381LQ102M200A012	0.216	0.097	2.30	3.22	35 x 25
1200	381LQ122M200J052	0.166	0.075	2.65	3.71	25 x 50
1200	381LQ122M200K032	0.166	0.075	2.65	3.71	30 x 35
1200	381LQ122M200A022	0.180	0.090	2.65	3.71	35 x 30
1500	381LQ152M200K042	0.133	0.060	2.80	3.92	30 x 40
1500	381LQ152M200A022	0.114	0.072	2.80	3.92	35 x 30
1800	381LQ182M200K452	0.110	0.050	3.08	4.31	30 x 45
1800	381LQ182M200A042	0.129	0.084	3.08	4.31	35 x 40
2200	381LQ222M200K052	0.090	0.041	3.48	4.87	30 x 50
2200	381LQ222M200A452	0.096	0.044	3.48	4.87	35 x 45
250 Vdc (300 Vdc Surge)						
270	381LQ271M250H012	0.614	0.276	1.10	1.54	22 x 25
330	381LQ331M250H022	0.502	0.226	1.20	1.68	22 x 30
330	381LQ331M250J012	0.502	0.226	1.20	1.68	25 x 25
390	381LQ391M250H032	0.425	0.191	1.30	1.82	22 x 35
390	381LQ391M250J012	0.425	0.191	1.30	1.82	25 x 25
470	381LQ471M250H042	0.353	0.159	1.40	1.96	22 x 40
470	381LQ471M250J022	0.353	0.159	1.40	1.96	25 x 30
470	381LQ471M250K012	0.353	0.159	1.40	1.96	30 x 25
560	381LQ561M250H452	0.296	0.133	1.50	2.10	22 x 45
560	381LQ561M250J032	0.296	0.133	1.50	2.10	25 x 35
560	381LQ561M250K012	0.296	0.133	1.50	2.10	30 x 25
680	381LQ681M250H052	0.244	0.110	1.70	2.38	22 x 50
680	381LQ681M250J042	0.244	0.110	1.70	2.38	25 x 40
680	381LQ681M250K022	0.244	0.110	1.70	2.38	30 x 30
680	381LQ681M250A012	0.244	0.110	1.70	2.38	35 x 25
820	381LQ821M250J452	0.202	0.091	2.00	2.80	25 x 45
820	381LQ821M250K032	0.202	0.091	2.00	2.80	30 x 35
820	381LQ821M250A022	0.202	0.091	2.00	2.80	35 x 30
1000	381LQ102M250K042	0.166	0.075	2.20	3.08	30 x 40
1200	381LQ122M250K452	0.138	0.062	2.30	3.22	30 x 45
1500	381LQ152M250A452	0.110	0.050	2.50	3.50	35 x 45
1800	381LQ182M250A052	0.092	0.041	2.70	3.78	35 x 50
315 Vdc (365 Vdc Surge)						
150	381LQ151M315H012	1.105	0.497	0.82	1.15	22 x 25
180	381LQ181M315H022	0.921	0.414	0.90	1.26	22 x 30
220	381LQ221M315H022	0.754	0.339	1.00	1.40	22 x 30
270	381LQ271M315J022	0.614	0.276	1.10	1.54	25 x 30
330	381LQ331M315H452	0.502	0.226	1.20	1.68	22 x 45
330	381LQ331M315J032	0.502	0.226	1.20	1.68	25 x 35
330	381LQ331M315K012	0.502	0.226	1.20	1.68	30 x 25
390	381LQ391M315J042	0.425	0.191	1.30	1.82	25 x 40
390	381LQ391M315K022	0.425	0.191	1.30	1.82	30 x 30
390	381LQ391M315A012	0.425	0.191	1.30	1.82	35 x 25
470	381LQ471M315J452	0.353	0.159	1.40	1.96	25 x 45
470	381LQ471M315K032	0.353	0.159	1.40	1.96	30 x 35
560	381LQ561M315J052	0.296	0.133	1.50	2.10	25 x 50
560	381LQ561M315K042	0.296	0.133	1.50	2.10	30 x 40
560	381LQ561M315A022	0.296	0.133	1.50	2.10	35 x 30
680	381LQ681M315K452	0.244	0.116	1.70	2.38	30 x 45
680	381LQ681M315A032	0.244	0.116	1.70	2.38	35 x 35
820	381LQ821M315K052	0.202	0.091	2.00	2.80	30 x 50
820	381LQ821M315A042	0.202	0.091	2.00	2.80	35 x 40
1000	381LQ102M315A452	0.166	0.075	2.30	3.22	35 x 45
350 Vdc (400 Vdc Surge)						
120	381LQ121M350H012	1.382	0.622	0.75	1.05	22 x 25
150	381LQ151M350H022	1.105	0.497	0.82	1.15	22 x 30
180	381LQ181M350H022	0.921	0.414	0.90	1.26	22 x 30
180	381LQ181M350J012	0.921	0.414	0.90	1.26	25 x 25
220	381LQ221M350H032	0.754	0.339	1.00	1.40	22 x 35
220	381LQ221M350J022	0.754	0.339	1.00	1.40	25 x 30
270	381LQ271M350J032	0.614	0.276	1.10	1.54	25 x 35
270	381LQ271M350K012	0.614	0.276	1.10	1.54	30 x 25
330	381LQ331M350J042	0.502	0.226	1.20	1.68	25 x 40

Cap. (µF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
330	381LQ331M350K022	0.502	0.226	1.20	1.68	30 x 30
390	381LQ391M350J452	0.425	0.191	1.30	1.82	25 x 45
390	381LQ391M350K032	0.425	0.191	1.30	1.82	30 x 35
470	381LQ471M350J052	0.353	0.159	1.40	1.96	25 x 50
470	381LQ471M350A022	0.353	0.159	1.40	1.96	35 x 30
560	381LQ561M350K452	0.296	0.133	1.50	2.10	30 x 45
560	381LQ561M350A032	0.296	0.133	1.50	2.10	35 x 35
680	381LQ681M350K052	0.244	0.110	1.70	2.38	30 x 50
680	381LQ681M350A042	0.244	0.110	1.70	2.38	35 x 40
820	381LQ821M350A452	0.202	0.091	1.90	2.66	35 x 45
400 Vdc (450 Vdc Surge)						
100	381LQ101M400H012	1.824	0.821	0.70	0.98	22 x 25
120	381LQ121M400H022	1.520	0.684	0.75	1.05	22 x 30
150	381LQ151M400H022	1.216	0.547	0.88	1.23	22 x 30
180	381LQ181M400H032	1.013	0.458	0.95	1.33	22 x 35
180	381LQ181M400J022	1.013	0.458	0.95	1.33	25 x 30
220	381LQ221M400H452	0.829	0.373	1.10	1.54	22 x 45
220	381LQ221M400J032	0.829	0.373	1.10	1.54	25 x 35
220	381LQ221M400K012	0.829	0.373	1.10	1.54	30 x 25
270	381LQ271M400H052	0.675	0.304	1.22	1.71	22 x 50
270	381LQ271M400J042	0.675	0.304	1.22	1.71	25 x 40
270	381LQ271M400K022	0.675	0.304	1.22	1.71	30 x 30
270	381LQ271M400A012	0.675	0.304	1.22	1.71	35 x 25
330	381LQ331M400J452	0.553	0.249	1.44	2.02	25 x 45
330	381LQ331M400K032	0.553	0.249	1.44	2.02	30 x 35
330	381LQ331M400A022	0.553	0.249	1.44	2.02	35 x 30
390	381LQ391M400J052	0.468	0.210	1.55	2.17	25 x 50
390	381LQ391M400K042	0.468	0.210	1.55	2.17	30 x 40
390	381LQ391M400A022	0.468	0.210	1.55	2.17	35 x 30
470	381LQ471M400K452	0.388	0.175	1.68	2.35	30 x 45
470	381LQ471M400A032	0.388	0.175	1.68	2.35	35 x 35
560	381LQ561M400K052	0.326	0.147	1.90	2.66	30 x 50
560	381LQ561M400A042	0.326	0.147	1.90	2.66	35 x 40
680	381LQ681M400A452	0.268	0.121	2.12	2.97	35 x 45
450 Vdc (500 Vdc Surge)						
100	381LQ101M450H022	1.824	0.821	0.64	0.90	22 x 30
100	381LQ101M450J012	1.824	0.821	0.64	0.90	25 x 25
120	381LQ121M450H032	1.520	0.684	0.72	1.01	22 x 35
120	381LQ121M450J022	1.520	0.684	0.72	1.01	25 x 30
150	381LQ151M450H042	1.216	0.547	0.79	1.11	22 x 40
150	381LQ151M450J022	1.216	0.547	0.79	1.11	25 x 30
150	381LQ151M450K012	1.216	0.547	0.79	1.11	30 x 25
180	381LQ181M450H452	1.013	0.456	0.87	1.22	22 x 45
180	381LQ181M450J042	1.013	0.456	0.87	1.22	25 x 40
180	381LQ181M450K022	1.013	0.456	0.87	1.22	30 x 30
220	381LQ221M450J452	0.829	0.373	1.00	1.40	25 x 45
220	381LQ221M450K022	0.829	0.373	1.00	1.40	30 x 30
220	381LQ221M450A012	0.829	0.373	1.00	1.40	35 x 25
270	381LQ271M450J052	0.675	0.304	1.19	1.67	25 x 50
270	381LQ271M450K042	0.675	0.304	1.19	1.67	30 x 40
270	381LQ271M450A022	0.675	0.304	1.19	1.67	35 x 30
330	381LQ331M450K452	0.553	0.249	1.38	1.93	30 x 45
330	381LQ331M450A032	0.553	0.249	1.38	1.93	35 x 35
390	381LQ391M450A042	0.468	0.21	1.55	2.17	35 x 40
470	381LQ471M450A452	0.388	0.175	1.74	2.44	35 x 45
560	381LQ561M450A052	0.326	0.147	1.9	2.66	35 x 50
390	381LQ391M450K052	0.680	0.210	1.55	2.17	30 x 50
390	381LQ391M450A042	0.468	0.210	1.55	2.17	35 x 40
470	381LQ471M450A452	0.388	0.175	1.74	2.44	35 x 45
560	381LQ561M450A052	0.326	0.147	1.90	2.66	35 x 50

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2.073

# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

## Types 381L/LX & 4-pin Mount 383LX (105 °C)



Adding longer-life and more ripple capability to the excellent value of Type 380L/LX capacitors, the 381L/LX readily handles tough switching power supply input and output circuits and motor-drive bus capacitor applications where the high surface area of multiple units in parallel equals the ripple capability of our Type 520C inverter-grade capacitor. Type 381LX delivers more capacitance per can size while Type 381L gives lower ESR for the same capacitance rating. Type 383L gives the choice of 4 or 5 leads for stable, reverseproof mounting. Type 383LX has 5 leads available.

### Highlights

- ◆ Latest available ratings, worldwide
- ◆ Top performance in power supplies and motor drives
- ◆ 4 times the life of Type 380L/LX
- ◆ Big selection of 46 case sizes
- ◆ 2, 4 and 5 leads available

## Specifications

**Operating Temperature:** -40 °C to 105 °C up to 315 Vdc, -25 °C 350 Vdc and up

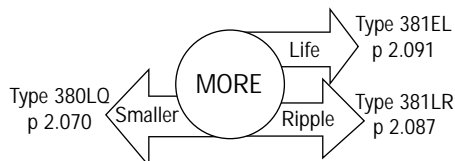
**Rated Voltage:** 10 Vdc to 450 Vdc

**Capacitance:** 33  $\mu$ F to 150,000  $\mu$ F  $\pm$ 20%

**Leakage Current:**  $\leq 3 \sqrt{CV} \mu$ A

**Ripple Current Multipliers:** Ambient Temperature

	45 °C	60 °C	70 °C	85 °C	105 °C
381L	2.7	2.6	2.5	2.1	1.0
381LX, 383 LX	2.35	2.2	2.0	1.70	1.0



### Frequency

	50 Hz	60 Hz	120 Hz	500 Hz	1 kHz	10 kHz & up
10-100 Vdc	.93	.95	1.00	1.05	1.08	1.15
160-400 Vdc	.95	.98	1.00	1.20	1.25	1.40

**EIA Ripple Life:** 12,000 h @ 85 °C, Full load as per EIA IS-749

$\Delta$  Capacitance  $\pm$ 20%,

ESR 200% of limit,

DCL 100% of limit

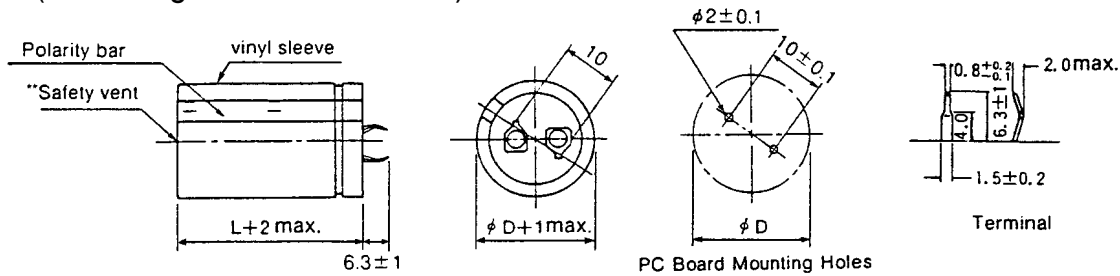
**Shelf Life:** 1000 h @ 105 °C, capacitance  $\pm$ 20%, DF 200% of limit, DCL 100% of limit.

**Vibration:** 10 to 55 Hz, 0.06" and 10 g max, 2 h in each plane

## Outline Drawings

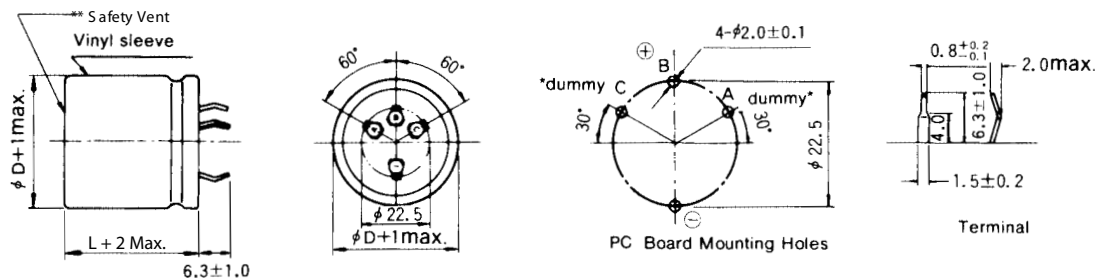
### Two Pins

381L/LX (20 through 40 mm diameter)



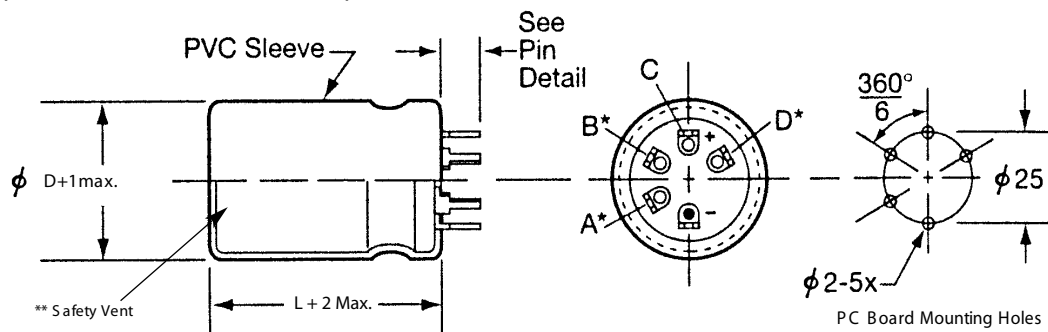
### Four Pins

383L / L X (35 and 40 mm diameter)



### Five Pins

383L (40 and 50 mm diameter)



Terminal	Connection	
	40 mm Dia.	50 mm Dia.
A	dummy	negative (-)
B	dummy	dummy
C	positive (+)	positive (+)
D	dummy	positive (+)
-	negative (-)	negative (-)

V Terminal Standoff Pin Dimensions				
	$W_1$	$W$	$P$	$P_1$
Type	P	$P_1$	W	$W_1$
V	$3.75\pm 0.1$	0.6 min.	$1.5\pm 0.1$	0.7

#### Notes:

\* Use dummy terminals for mechanical support only. Make no electrical connection because they resistively connect through the electrolyte to the negative terminal.

\*\* Safety Vent may be on the bottom or on the side of the can.

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2.075



# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

## Insulated Case Dimensions

Case Code	DIAMETER "D"		LENGTH "L"		Typical Weight (grams)
	mm	inches	mm	inches	
G01	20	0.79	25	0.98	14
G02	20	0.79	30	1.18	17
G03	20	0.79	35	1.38	19
G04	20	0.79	40	1.57	21
H20	22	0.87	20	0.79	14
H01	22	0.87	25	0.98	16
H02	22	0.87	30	1.18	19
H03	22	0.87	35	1.38	22
H04	22	0.87	40	1.57	24
H45	22	0.87	45	1.77	28
H05	22	0.87	50	1.97	31
J20	25	0.98	20	0.79	16
J01	25	0.98	25	0.98	20
J02	25	0.98	30	1.18	24
J03	25	0.98	35	1.38	27
J45	25	0.98	40	1.57	31
J04	25	0.98	45	1.77	35
J05	25	0.98	50	1.97	38
K20	30	1.18	20	0.79	25
K01	30	1.18	25	0.98	30
K02	30	1.18	30	1.18	35
K03	30	1.18	35	1.38	40
K04	30	1.18	40	1.57	44
K45	30	1.18	45	1.77	48
K05	30	1.18	50	1.97	53

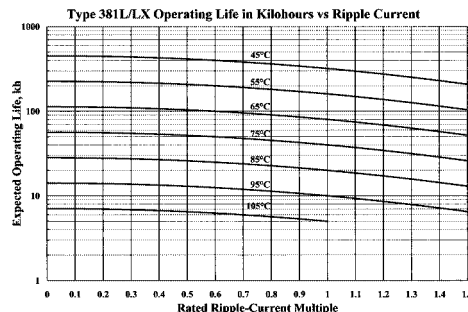
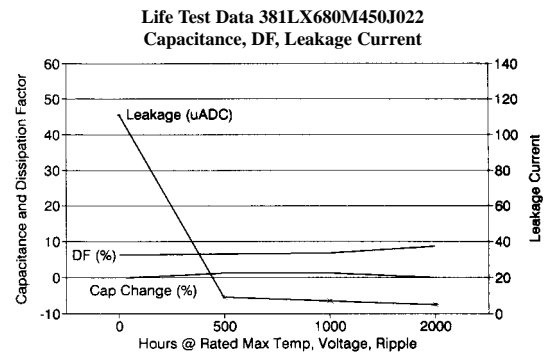
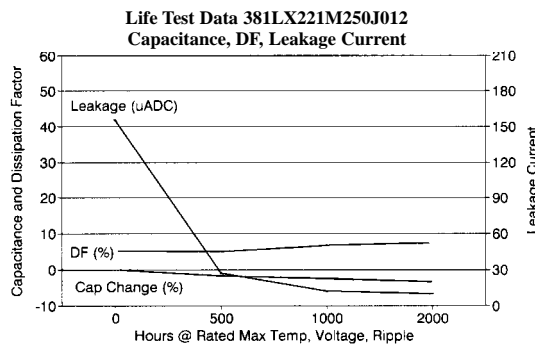
Case Code	DIAMETER "D"		LENGTH "L"		Typical Weight (grams)
	mm	inches	mm	inches	
A20	35	1.38	20	0.79	35
A01	35	1.38	25	0.98	42
A02	35	1.38	30	1.18	48
A03	35	1.38	35	1.38	54
A04	35	1.38	40	1.57	62
A45	35	1.38	45	1.77	67
A05	35	1.38	50	1.97	74
A06	35	1.38	63	2.48	88
A07	35	1.38	70	2.76	98
A08	35	1.38	80	3.15	112
A10	35	1.38	105	4.13	144
N04	40	1.57	40	1.57	82
N05	40	1.57	50	1.97	105
N06	40	1.57	63	2.48	130
N08	40	1.57	80	3.15	185
N10	40	1.57	105	4.13	265
B05	50	1.97	50	1.97	136
B06	50	1.97	63	2.48	168
B08	50	1.97	80	3.15	239
B09	50	1.97	92	3.62	241
B10	50	1.97	105	4.13	325

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## Part Numbering System

<b>383LX</b>	<b>472</b>	<b>M</b>	<b>200</b>	<b>N08</b>	<b>2</b>	<b>V</b>
<b>Type</b>	<b>Capacitance</b>	<b>Tolerance</b>	<b>Rated Voltage</b>	<b>Case Code</b>	<b>Insulation</b>	<b>383L/LX</b>
381L (2 pins)	681 = 680 $\mu$ F	M = $\pm$ 20%	Vdc		2 = PVC	4 or 5 Pin Mount
381LX (2 pins)	472 = 4700 $\mu$ F					blank = 4 pins
383L (4 or 5 pins)						V = 5 pins
383LX (4 or 5 pins)						(40 or 50 mm dia)

## Typical Performance Curves



# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

## Ratings

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C 120 Hz 20 kHz	Ripple Amps Max. @ 105 °C 120 Hz 20 kHz	Nominal Size DxL (mm)
10 Vdc (13 Vdc Surge)				
4700	381L472M010H012	0.127	0.096	1.80 2.10
6800	381L682M010H022	0.087	0.066	2.10 2.40
6800	381L682M010J012	0.087	0.066	2.10 2.40
6800	381L682M010H012	0.098	0.074	2.10 2.40
6800	381LX682M010G012	0.107	0.081	1.30 1.50
8200	381L822M010J012	0.081	0.061	2.30 2.60
8200	381LX822M010G022	0.089	0.067	1.60 1.80
10000	381L103M010H042	0.060	0.045	2.50 2.90
10000	381L103M010J022	0.060	0.045	2.50 2.90
10000	381L103M010K012	0.060	0.045	2.50 2.90
10000	381L103M010H022	0.066	0.050	2.50 2.90
10000	381LX103M010G022	0.073	0.055	1.80 2.10
10000	381LX103M010H012	0.073	0.055	1.80 2.10
12000	381LX123M010G032	0.061	0.046	2.20 2.50
12000	381LX123M010H022	0.061	0.046	2.20 2.50
12000	381L123M010H032	0.073	0.042	2.80 3.20
12000	381L123M010J022	0.073	0.042	2.80 3.20
15000	381L153M010H052	0.040	0.026	3.10 3.60
15000	381L153M010J042	0.040	0.026	3.10 3.60
15000	381L153M010K022	0.040	0.026	3.10 3.60
15000	381L153M010H042	0.044	0.033	3.10 3.60
15000	381L153M010J032	0.044	0.033	3.10 3.60
15000	381L153M010K012	0.044	0.033	3.10 3.60
15000	381LX153M010G042	0.049	0.037	2.30 2.60
15000	381LX153M010H032	0.049	0.037	2.30 2.60
15000	381LX153M010J012	0.049	0.037	2.30 2.60
18000	381L183M010H052	0.037	0.028	3.20 3.70
18000	381L183M010J042	0.037	0.028	3.20 3.70
18000	381L183M010K022	0.037	0.028	3.20 3.70
18000	381L183M010A012	0.037	0.028	3.20 3.70
18000	381LX183M010H042	0.041	0.031	2.40 2.80
18000	381LX183M010J022	0.041	0.031	2.40 2.80
22000	381L223M010J052	0.027	0.020	3.40 3.90
22000	381L223M010K042	0.027	0.020	3.40 3.90
22000	381L223M010A022	0.027	0.020	3.40 3.90
22000	381L223M010K032	0.030	0.023	3.40 3.90
22000	381LX223M010H452	0.033	0.025	2.60 3.00
22000	381LX223M010J032	0.033	0.025	2.60 3.00
22000	381LX223M010K012	0.033	0.025	2.60 3.00
27000	381L273M010J052	0.025	0.019	3.70 4.30
27000	381L273M010K042	0.025	0.019	3.70 4.30
27000	381L273M010A032	0.025	0.019	3.70 4.30
27000	381LX273M010H052	0.027	0.020	3.10 3.60
27000	381LX273M010J042	0.027	0.020	3.10 3.60
27000	381LX273M010K022	0.027	0.020	3.10 3.60
27000	381LX273M010A012	0.027	0.020	3.10 3.60
33000	381L333M010K052	0.018	0.014	3.90 4.50
33000	381L333M010A042	0.018	0.014	3.90 4.50
33000	381LX333M010J452	0.022	0.017	3.40 3.90
33000	381LX333M010K032	0.022	0.017	3.40 3.90
33000	381LX333M010A022	0.022	0.017	3.40 3.90
39000	381L393M010K052	0.017	0.013	4.50 5.20
39000	381L393M010A042	0.017	0.013	4.50 5.20
39000	381LX393M010J052	0.021	0.016	3.70 4.30
39000	381LX393M010K042	0.021	0.016	3.70 4.30
39000	381LX393M010A022	0.021	0.016	3.70 4.30
47000	381LX473M010K452	0.019	0.014	4.20 4.80
47000	381LX473M010A032	0.019	0.014	4.20 4.80
56000	381LX563M010K052	0.018	0.014	5.00 5.80
56000	381LX563M010A042	0.018	0.014	5.00 5.80
68000	381LX683M010A052	0.018	0.014	5.50 6.30
82000	381L823M010A062	0.013	0.008	6.30 7.90
82000	383L823M010N052	0.014	0.009	5.90 7.30
100000	381L104M010A072	0.011	0.007	7.30 9.00

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C 120 Hz 20 kHz	Ripple Amps Max. @ 105 °C 120 Hz 20 kHz	Nominal Size DxL (mm)
10 Vdc (13 Vdc Surge) (cont'd)				
120000	381L124M010A082	0.010	0.006	8.20 10.00
120000	383L124M010N062	0.012	0.008	7.10 8.60
150000	383L154M010N082	0.009	0.006	8.90 10.60
16 Vdc (20 Vdc Surge)				
3300	381L332M016H012	0.141	0.107	1.60 1.80
3300	381LX332M016H202	0.181	0.137	1.30 1.50
4700	381L472M016H022	0.099	0.075	2.00 2.30
4700	381L472M016J012	0.099	0.075	2.00 2.30
4700	381L472M016H012	0.113	0.085	2.10 2.40
4700	381LX472M016J202	0.127	0.096	1.60 1.80
6800	381L682M016H042	0.068	0.051	2.40 2.80
6800	381L682M016J022	0.068	0.057	2.40 2.80
6800	381L682M016K012	0.068	0.057	2.40 2.80
6800	381L682M016H022	0.078	0.059	2.40 2.80
6800	381L682M016J012	0.078	0.059	2.40 2.80
6800	381LX682M016G022	0.088	0.067	2.20 2.50
6800	381LX682M016H012	0.088	0.067	2.20 2.50
6800	381LX682M016K202	0.088	0.067	1.80 2.10
8200	381L822M016H032	0.065	0.049	2.60 3.00
8200	381LX822M016G032	0.073	0.055	2.40 2.80
8200	381LX822M016H022	0.079	0.055	2.40 2.80
10000	381L103M016H052	0.046	0.035	2.90 3.30
10000	381L103M016J042	0.046	0.035	2.90 3.30
10000	381L103M016K022	0.046	0.035	2.90 3.30
10000	381L103M016H042	0.053	0.040	2.90 3.30
10000	381L103M016J022	0.053	0.040	2.90 3.30
10000	381L103M016K012	0.053	0.040	2.90 3.30
10000	381LX103M016G042	0.060	0.045	2.60 3.00
10000	381LX103M016H022	0.060	0.045	2.60 3.00
10000	381LX103M016J012	0.060	0.045	2.60 3.00
10000	381LX103M016A202	0.060	0.045	2.40 2.80
12000	381L123M016J032	0.044	0.033	3.20 3.70
12000	381L123M016K022	0.044	0.033	3.20 3.70
12000	381L123M016A012	0.044	0.033	3.20 3.70
12000	381LX123M016H032	0.050	0.038	2.90 3.30
12000	381LX123M016J022	0.050	0.038	2.90 3.30
12000	381LX123M016K012	0.050	0.038	2.90 3.30
15000	381L153M016J052	0.031	0.023	3.50 4.00
15000	381L153M016K042	0.031	0.023	3.50 4.00
15000	381L153M016A022	0.031	0.023	3.50 4.00
15000	381L153M016H052	0.035	0.026	3.50 4.00
15000	381L153M016J042	0.035	0.026	3.50 4.00
15000	381LX153M016H042	0.040	0.030	3.20 3.70
15000	381LX153M016J032	0.040	0.030	3.20 3.70
15000	381LX153M016K022	0.040	0.030	3.20 3.70
18000	381L183M016J052	0.029	0.022	3.80 4.40
18000	381L183M016K032	0.029	0.022	3.80 4.40
18000	381L183M016A022	0.029	0.022	3.80 4.40
18000	381LX183M016H452	0.033	0.025	3.50 4.00
18000	381LX183M016J042	0.033	0.025	3.50 4.00
18000	381LX183M016K022	0.033	0.025	3.50 4.00
18000	381LX183M016A012	0.033	0.025	3.50 4.00
22000	381L223M016K052	0.021	0.016	4.20 4.80
22000	381L223M016A042	0.021	0.016	4.20 4.80
22000	381L223M016K042	0.024	0.018	4.20 4.80
22000	381L223M016A032	0.024	0.018	4.20 4.80
22000	381LX223M016J452	0.027	0.020	3.80 4.40
22000	381LX223M016K032	0.027	0.020	3.80 4.40
22000	381LX223M016A022	0.027	0.020	3.80 4.40
27000	381L273M016K052	0.020	0.015	5.60 6.40
27000	381L273M016A042	0.020	0.015	5.60 6.40
27000	381LX273M016J052	0.022	0.017	4.20 4.80
27000	381LX273M016K042	0.022	0.017	4.20 4.80

Aluminum  
Snap-In  
Capacitors

# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
16 Vdc (20 Vdc Surge) (cont'd)						
27000	381LX273M016A022	0.022	0.017	4.20	4.80	35x30
33000	381LX333M016K452	0.018	0.014	4.70	5.40	30x45
33000	381LX333M016A032	0.018	0.014	4.70	5.40	35x35
39000	381LX393M016K052	0.017	0.013	5.10	5.90	30x50
39000	381LX393M016A042	0.017	0.013	5.10	5.90	35x40
47000	381LX473M016A452	0.017	0.013	5.50	6.30	35x45
47000	383LX473M016N042	0.020	0.018	5.50	6.33	40x40
56000	381LX563M016A052	0.016	0.012	6.00	6.90	35x50
68000	381L683M016A072	0.012	0.007	7.10	9.00	35x70
68000	383L683M016N062	0.012	0.008	6.90	8.50	40x63
68000	381LX683M016A062	0.017	0.013	6.80	7.80	35x63
68000	383LX683M016N052	0.019	0.014	6.60	7.60	40x50
82000	381L823M016A082	0.010	0.007	8.00	10.00	35x80
82000	383LX823M016N062	0.017	0.013	7.30	8.40	40x63
100000	381LX104M016A082	0.015	0.011	7.50	8.70	35x80
120000	383L124M016N082	0.009	0.006	8.70	10.50	40x80
120000	381LX124M016A102	0.014	0.012	8.71	10.02	35x105
120000	383LX124M016B052V	0.015	0.014	9.02	10.37	50x50
150000	383LX154M016N102	0.013	0.012	9.88	11.36	40x105
150000	383LX154M016B062V	0.014	0.013	10.15	11.67	50x63
180000	383LX184M016B082V	0.013	0.012	11.02	12.67	50x80
220000	383LX224M016B092V	0.012	0.011	11.71	13.47	50x92
250000	383LX254M016B102V	0.011	0.010	12.31	14.16	50x105
25 Vdc (32 Vdc Surge)						
2200	381LX222M025H202	0.211	0.160	1.30	1.50	22x20
2200	381L222M025H012	0.211	0.160	1.50	1.70	22x25
3300	381L332M025H012	0.121	0.092	1.70	2.00	22x25
3300	381L332M025H022	0.141	0.107	1.70	2.00	22x30
3300	381LX332M025J202	0.141	0.107	1.60	1.80	25x20
3300	381L332M025J012	0.141	0.107	1.70	2.00	25x25
4700	381L472M025H022	0.085	0.064	2.20	2.50	22x30
4700	381L472M025J012	0.085	0.064	2.20	2.50	25x25
4700	381LX472M025G022	0.099	0.075	2.00	2.30	20x30
4700	381LX472M025H012	0.099	0.075	2.00	2.30	22x25
4700	381L472M025H042	0.099	0.075	2.20	2.50	22x40
4700	381L472M025J022	0.099	0.075	2.20	2.50	25x30
4700	381LX472M025K202	0.099	0.075	1.80	2.10	30x20
4700	381L472M025K012	0.099	0.075	2.20	2.50	30x25
5600	381L562M025H032	0.071	0.054	2.40	2.80	22x35
5600	381LX562M025G032	0.083	0.036	2.20	2.50	20x35
5600	381LX562M025H022	0.083	0.063	2.20	2.50	22x30
6800	381L682M025H042	0.059	0.045	2.60	3.00	22x40
6800	381L682M025J022	0.059	0.045	2.60	3.00	25x30
6800	381L682M025K012	0.059	0.045	2.60	3.00	30x25
6800	381LX682M025G042	0.068	0.051	2.40	2.80	20x40
6800	381LX682M025H022	0.068	0.051	2.40	2.80	22x30
6800	381L682M025H052	0.068	0.051	2.60	3.00	22x50
6800	381LX682M025J012	0.068	0.051	2.40	2.80	25x25
6800	381L682M025J042	0.068	0.051	2.60	3.00	25x40
6800	381L682M025K022	0.068	0.051	2.60	3.00	30x30
6800	381LX682M025A202	0.068	0.051	2.30	2.60	35x20
8200	381L822M025J032	0.049	0.037	2.80	3.20	25x35
8200	381LX822M025H032	0.057	0.043	2.70	3.10	22x35
8200	381LX822M025J022	0.057	0.043	2.70	3.10	25x30
8200	381LX822M025K012	0.057	0.043	2.70	3.10	30x25
10000	381L103M025H052	0.040	0.030	3.10	3.60	22x50
10000	381L103M025J042	0.040	0.030	3.10	3.60	25x40
10000	381L103M025A012	0.040	0.030	3.10	3.60	35x25
10000	381LX103M025H042	0.046	0.035	3.00	3.50	22x40
10000	381LX103M025J032	0.046	0.035	3.00	3.50	25x35
10000	381L103M025J052	0.046	0.035	3.10	3.60	25x50
10000	381L103M025K042	0.046	0.035	3.10	3.60	30x40
10000	381L103M025A022	0.046	0.035	3.10	3.60	35x30
10000	381LX103M025K022	0.047	0.035	3.00	3.50	30x30
12000	381L123M025J052	0.033	0.025	3.20	3.70	25x50

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
25 Vdc (32 Vdc Surge) (cont'd)						
12000	381L123M025K032	0.033	0.025	3.20	3.70	30x35
12000	381L123M025A022	0.033	0.025	3.20	3.70	35x30
12000	381LX123M025J042	0.039	0.029	3.20	3.70	25x40
12000	381LX123M025K022	0.039	0.029	3.20	3.70	30x30
12000	381LX123M025A012	0.039	0.029	3.20	3.70	35x25
12000	381LX123M025H452	0.044	0.033	3.20	3.68	22x45
15000	381L153M025K042	0.027	0.015	3.50	4.00	30x40
15000	381L153M025A032	0.027	0.015	3.50	4.00	35x35
15000	381LX153M025J452	0.031	0.023	3.60	4.10	25x45
15000	381LX153M025K032	0.031	0.032	3.60	4.10	30x35
15000	381L153M025K052	0.031	0.023	3.50	4.00	30x50
15000	381LX153M025A022	0.031	0.023	3.60	4.10	35x30
15000	381L153M025A042	0.031	0.023	3.50	4.00	35x40
18000	381L183M025K052	0.022	0.017	3.80	4.40	30x50
18000	381L183M025A042	0.022	0.017	3.80	4.40	35x40
18000	381LX183M025J052	0.026	0.020	3.90	4.50	25x50
18000	381LX183M025K042	0.026	0.020	3.90	4.50	30x40
18000	381LX183M025A032	0.026	0.020	3.90	4.50	35x35
22000	381LX223M025K452	0.021	0.016	4.30	4.90	30x45
22000	381LX223M025A032	0.021	0.016	4.30	4.90	35x35
27000	381LX273M025A452	0.017	0.009	4.80	5.50	35x45
27000	381LX273M025A042	0.018	0.017	4.80	5.52	35x40
27000	383L273M025N042	0.020	0.013	4.60	5.60	40x40
33000	381LX333M025A052	0.014	0.007	5.50	6.30	35x50
33000	383LX333M025N042	0.018	0.016	5.50	6.33	40x40
39000	381L393M025A062	0.014	0.009	6.10	7.60	35x63
39000	383L393M025N052	0.015	0.010	5.80	7.00	40x50
47000	381L473M025A072	0.012	0.008	7.10	8.70	35x70
47000	383L473M025N062	0.012	0.008	6.90	8.30	40x63
47000	381LX473M025A062	0.017	0.013	7.00	8.10	35x63
47000	383LX473M025N052	0.019	0.015	6.20	7.00	40x50
56000	381L563M025A082	0.010	0.007	7.90	9.70	35x80
56000	383LX563M025N062	0.015	0.012	6.70	7.70	40x63
68000	383L683M025N082	0.009	0.007	8.70	10.20	40x80
82000	381LX823M025A102	0.013	0.012	8.58	9.87	35x105
82000	383LX823M025N082	0.014	0.011	8.00	9.20	40x80
82000	383LX823M025B052V	0.016	0.015	9.20	10.58	50x50
100000	383LX104M025N102	0.012	0.010	9.76	11.22	40x105
100000	383LX104M025B062V	0.015	0.013	10.02	11.52	50x63
120000	383LX124M025B082V	0.013	0.012	10.93	12.57	50x80
150000	383LX154M025B092V	0.012	0.011	11.70	13.46	50x92
180000	383LX184M025B102V	0.010	0.009	12.42	14.28	50x105
35 Vdc (44 Vdc Surge)						
1500	381LX152M035H202	0.265	0.200	1.10	1.30	22x20
1500	381L152M035H012	0.265	0.200	1.40	1.60	22x25
2200	381L222M035H012	0.151	0.114	1.60	1.80	22x25
2200	381L222M035H022	0.181	0.137	1.60	1.80	22x30
2200	381LX222M035J202	0.181	0.137	1.40	1.60	25x20
2200	381L222M035J012	0.181	0.137	1.60	1.80	25x25
3300	381L332M035H022	0.100	0.076	1.80	2.10	22x30
3300	381L332M035J012	0.100	0.076	1.80	2.10	25x25
3300	381LX332M035G022	0.121	0.091	1.90	2.20	20x30
3300	381LX332M035H012	0.121	0.091	1.90	2.20	22x25
3300	381L332M035H042	0.121	0.091	1.80	2.10	22x40
3300	381L332M035J022	0.121	0.091	1.80	2.10	25x30
3300	381LX332M035K202	0.121	0.091	1.70	2.00	30x20
3300	381L332M035K012	0.121	0.091	1.80	2.10	30x25
3900	381L392M035H032	0.085	0.060	2.00	2.30	22x35
3900	381LX392M035G032	0.102	0.077	2.00	2.30	20x35
3900	381LX392M035H022	0.102	0.077	2.00	2.30	22x30
4700	381L472M035H042	0.071	0.054	2.30	2.60	22x40
4700	381L472M035J022	0.071	0.054	2.30	2.60	25x30
4700	381L472M035K012	0.071	0.054	2.30	2.60	30x25
4700	381LX472M035H032	0.080	0.060	2.20	2.50	22x35
4700	381L472M035H052	0.085	0.060	2.30	2.60	22x50

# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxDL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
35 Vdc (44 Vdc Surge) (cont'd)						
4700	381LX472M035J012	0.085	0.060	2.20	2.50	25x25
4700	381L472M035J042	0.085	0.060	2.30	2.60	25x40
4700	381L472M035K022	0.085	0.060	2.30	2.60	30x30
4700	381LX472M035A202	0.085	0.060	2.00	2.30	35x20
4700	381LX472M035G042	0.088	0.066	2.20	2.53	20x40
5600	381L562M035J032	0.059	0.045	2.50	2.90	25x35
5600	381LX562M035H032	0.071	0.054	2.40	2.80	22x35
5600	381LX562M035J022	0.071	0.054	2.40	2.80	25x30
5600	381LX562M035K012	0.071	0.054	2.40	2.80	30x25
6800	381L682M035H052	0.049	0.037	2.90	3.30	22x50
6800	381L682M035J042	0.049	0.037	2.90	3.30	25x40
6800	381L682M035A012	0.049	0.037	2.90	3.30	35x25
6800	381LX682M035H042	0.059	0.045	2.60	3.00	22x40
6800	381L682M035A022	0.059	0.045	2.90	3.30	35x30
6800	381LX682M035J032	0.059	0.045	2.60	3.00	25x35
6800	381L682M035J052	0.059	0.045	2.90	3.30	25x50
6800	381LX682M035K022	0.059	0.045	2.60	3.00	30x30
6800	381L682M035K042	0.059	0.045	2.90	3.30	30x40
8200	381L822M035J052	0.040	0.030	3.20	3.70	25x50
8200	381L822M035K032	0.040	0.030	3.20	3.70	30x35
8200	381LX822M035H052	0.049	0.037	2.90	3.30	22x50
8200	381LX822M035J042	0.049	0.037	2.90	3.30	25x40
8200	381LX822M035K022	0.049	0.037	2.90	3.30	30x30
8200	381LX822M035A012	0.049	0.037	2.90	3.30	35x25
10000	381L103M035K042	0.033	0.025	3.50	4.00	30x40
10000	381LX103M035J452	0.040	0.030	3.20	3.70	25x45
10000	381LX103M035K032	0.040	0.030	3.20	3.70	30x35
10000	381L103M035K052	0.040	0.030	3.50	4.00	30x50
10000	381LX103M035A022	0.040	0.030	3.20	3.70	35x30
10000	381L103M035A042	0.040	0.030	3.50	4.00	35x40
12000	381L123M035K052	0.028	0.021	3.80	4.40	30x50
12000	381L123M035A032	0.028	0.021	3.80	4.40	35x35
12000	381LX123M035J052	0.033	0.025	3.50	4.00	25x50
12000	381LX123M035K042	0.033	0.025	3.50	4.00	30x40
12000	381LX123M035A022	0.033	0.025	3.50	4.00	35x30
15000	381L153M035A042	0.022	0.017	4.20	4.80	35x40
15000	381LX153M035K452	0.027	0.020	3.90	4.50	30x45
15000	381LX153M035A032	0.027	0.020	3.90	4.50	35x35
18000	381LX183M035A042	0.022	0.017	4.30	4.90	35x40
22000	381LX223M035A052	0.018	0.014	5.00	5.80	35x50
22000	383LX223M035N042	0.023	0.017	5.00	5.75	40x40
27000	383L273M035N052	0.018	0.011	5.30	6.60	40x50
27000	381LX273M035A062	0.021	0.016	5.60	6.40	35x63
33000	381L333M035A072	0.014	0.009	6.40	8.10	35x70
33000	383L333M035N062	0.015	0.010	6.30	7.80	40x63
39000	381L393M035A082	0.011	0.008	7.50	9.00	35x80
47000	383L473M035N082	0.011	0.008	8.00	9.70	40x80
47000	381LX473M035A102	0.017	0.013	8.07	9.28	35x105
47000	383LX473M035B052V	0.021	0.016	8.25	9.49	50x50
56000	383LX563M035B062V	0.019	0.014	9.07	10.43	50x63
68000	383LX683M035N102	0.016	0.012	9.27	10.66	40x105
68000	383LX683M035B082V	0.017	0.013	10.07	11.58	50x80
82000	383LX823M035B092V	0.015	0.011	10.89	12.52	50x92
100000	383LX104M035B102V	0.018	0.010	11.75	13.51	50x105
50 Vdc (63 Vdc Surge)						
1000	381LX102M050H202	0.332	0.251	0.90	1.00	22x20
1000	381L102M050H012	0.332	0.251	1.30	1.50	22x25
1200	380L122M050H012	0.221	0.167	1.40	1.60	22x25
1500	381L152M050H022	0.221	0.167	1.50	1.70	22x30
1500	381LX152M050J202	0.221	0.167	1.20	1.40	25x20
1500	381L152M050J012	0.221	0.167	1.50	1.70	25x25
1800	381L182M050H022	0.147	0.111	1.70	2.00	22x30
1800	381L182M050J012	0.147	0.111	1.70	2.00	25x25
1800	381LX182M050G022	0.184	0.139	1.50	1.70	20x30
1800	381LX182M050H012	0.184	0.139	1.50	1.70	22x25

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
50 Vdc (63 Vdc Surge) (cont'd)						
2200	381L222M050H032	0.121	0.091	1.90	2.20	22x35
2200	381LX222M050G032	0.151	0.114	1.70	2.00	20x35
2200	381LX222M050H022	0.151	0.114	1.70	2.00	22x30
2200	381L222M050H042	0.151	0.114	1.90	2.20	22x40
2200	381L222M050J022	0.151	0.114	1.90	2.20	25x30
2200	381LX222M050K202	0.151	0.114	1.40	1.60	30x20
2200	381L222M050K012	0.151	0.114	1.90	2.20	30x25
2700	381L272M050H042	0.098	0.074	2.10	2.40	22x40
2700	381L272M050J022	0.098	0.074	2.10	2.40	25x30
2700	381L272M050K012	0.098	0.074	2.10	2.40	30x25
2700	381LX272M050G042	0.123	0.093	1.80	2.10	20x40
2700	381LX272M050H022	0.123	0.093	1.80	2.10	22x30
2700	381LX272M050J012	0.123	0.093	1.80	2.10	25x25
3300	381L332M050J032	0.080	0.061	2.30	2.60	25x35
3300	381LX332M050H032	0.100	0.076	2.00	2.30	22x35
3300	381L332M050H052	0.100	0.076	2.30	2.60	22x50
3300	381LX332M050J022	0.100	0.076	2.00	2.30	25x30
3300	381L332M050J042	0.100	0.076	2.30	2.60	25x40
3300	381L332M050K022	0.100	0.076	2.30	2.60	30x30
3300	381LX332M050A202	0.100	0.076	1.70	2.00	35x20
3900	381L392M050H052	0.068	0.051	2.50	2.90	22x50
3900	381L392M050J042	0.068	0.051	2.50	2.90	25x40
3900	381L392M050K022	0.068	0.051	2.50	2.90	30x30
3900	381L392M050A012	0.068	0.051	2.50	2.90	35x25
3900	381LX392M050H042	0.085	0.064	2.20	2.50	22x40
3900	381LX392M050J032	0.085	0.064	2.20	2.50	25x35
3900	381LX392M050K012	0.085	0.064	2.20	2.50	30x25
4700	381L472M050K032	0.056	0.042	2.80	3.20	30x35
4700	381LX472M050H452	0.071	0.054	2.50	2.90	22x45
4700	381LX472M050J042	0.071	0.054	2.50	2.90	25x40
4700	381L472M050J052	0.071	0.054	2.80	3.20	25x50
4700	381LX472M050K022	0.071	0.054	2.50	2.90	30x30
4700	381L472M050K042	0.071	0.054	2.80	3.20	30x40
4700	381LX472M050A012	0.071	0.054	2.50	2.90	35x25
4700	381L472M050A022	0.071	0.054	2.80	3.20	35x30
5600	381L562M050J052	0.047	0.036	3.00	3.50	25x50
5600	381L562M050K042	0.047	0.036	3.00	3.50	30x40
5600	381LX562M050H052	0.059	0.045	2.80	3.20	22x50
5600	381LX562M050J042	0.059	0.045	2.80	3.20	25x40
5600	381LX562M050K032	0.059	0.045	2.80	3.20	30x35
5600	381LX562M050A022	0.059	0.045	2.80	3.20	35x30
6800	381L682M050A032	0.039	0.029	3.20	3.70	35x35
6800	381LX682M050J052	0.049	0.029	3.30	3.80	25x50
6800	381LX682M050K042	0.049	0.029	3.30	3.80	30x40
6800	381L682M050K052	0.049	0.037	3.20	3.70	30x50
6800	381LX682M050A022	0.049	0.029	3.30	3.80	35x30
6800	381L682M050A042	0.049	0.037	3.20	3.70	35x40
8200	381L822M050K052	0.032	0.024	3.50	4.00	30x50
8200	381L822M050A042	0.032	0.024	3.50	4.00	35x40
8200	381LX822M050K452	0.040	0.030	3.60	4.10	30x45
8200	381LX822M050A032	0.040	0.030	3.60	4.10	35x35
10000	381LX103M050K052	0.033	0.025	4.00	4.60	30x50
10000	381LX103M050A042	0.033	0.025	4.00	4.60	35x40
12000	381LX123M050A452	0.028	0.021	4.50	5.20	35x45
12000	383L123M050N042	0.029	0.018	3.80	4.80	40x40
15000	381L153M050A062	0.020	0.012	5.10	6.50	35x63
15000	383L153M050N052	0.021	0.013	4.90	6.10	40x50
15000	381LX153M050A052	0.022	0.012	4.80	5.50	35x50
15000	383LX153M050N042	0.022	0.018	4.80	5.52	40x40
18000	381L183M050A072	0.017	0.010	5.90	7.50	35x70
18000	383L183M050N062	0.017	0.011	5.80	7.20	40x63
18000	381LX183M050A062	0.028	0.022	5.30	6.00	35x63
22000	381L223M050A082	0.014	0.009	6.70	8.40	35x80
22000	383LX223M050N052	0.026	0.019	5.10	5.90	40x50
27000	383L273M050N082	0.013	0.009	7.40	9.00	40x80
27000	381LX273M050A082	0.018	0.014	5.90	6.70	35x80

Aluminum  
Snap-In  
Capacitors

# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
50 Vdc (63 Vdc Surge) (cont'd)						
27000	383LX273M050N062	0.021	0.016	5.60	6.50	40x63
33000	381LX333M050A102	0.018	0.010	7.23	8.31	35x105
33000	383LX333M050B052V	0.018	0.014	7.75	8.91	50x50
39000	383LX393M050N082	0.013	0.010	6.20	7.10	40x80
39000	383LX393M050B062V	0.016	0.013	8.40	9.66	50x63
47000	383LX473M050N102	0.012	0.010	8.18	9.41	40x105
47000	383LX473M050B082V	0.014	0.011	9.19	10.57	50x80
56000	383LX563M050B092V	0.012	0.009	9.79	11.26	50x92
68000	383LX683M050B102V	0.011	0.009	10.42	11.98	50x105
63 Vdc (79 Vdc Surge)						
680	381LX681M063H202	0.390	0.295	0.90	1.00	22x20
680	381L681M063H012	0.390	0.295	0.90	1.00	22x25
1000	381L102M063H012	0.212	0.160	1.30	1.50	22x25
1000	381L102M063H022	0.265	0.200	1.30	1.50	22x30
1000	381LX102M063J202	0.265	0.200	1.20	1.40	25x20
1000	381L102M063J012	0.265	0.200	1.30	1.50	25x25
1200	381LX122M063G022	0.220	0.167	1.40	1.60	20x30
1200	381LX122M063H012	0.221	0.167	1.40	1.60	22x25
1500	381L152M063J012	0.141	0.107	1.60	1.80	25x25
1500	381LX152M063G032	0.177	0.134	1.50	1.70	20x35
1500	381LX152M063H022	0.177	0.134	1.50	1.70	22x30
1500	381L152M063H042	0.177	0.134	1.60	1.80	22x40
1500	381L152M063J022	0.177	0.134	1.60	1.80	25x30
1500	381LX152M063K202	0.177	0.134	1.30	1.50	30x20
1500	381L152M063K012	0.177	0.134	1.60	1.80	30x25
1800	381L182M063H032	0.118	0.089	1.80	2.10	22x35
1800	381LX182M063G042	0.147	0.111	1.70	2.00	20x40
1800	381LX182M063J012	0.147	0.111	1.70	2.00	25x25
1800	381LX182M063H022	0.157	0.117	1.70	1.96	22x30
2200	381L222M063H042	0.096	0.073	2.00	2.30	22x40
2200	381L222M063K012	0.096	0.073	2.00	2.30	30x25
2200	381LX222M063H032	0.121	0.091	2.00	2.30	22x35
2200	381L222M063H052	0.121	0.091	2.00	2.30	22x50
2200	381LX222M063J022	0.121	0.091	2.00	2.30	25x30
2200	381L222M063J042	0.121	0.091	2.00	2.30	25x40
2200	381L222M063K022	0.121	0.091	2.00	2.30	30x30
2200	381LX222M063A202	0.121	0.091	1.50	1.70	35x20
2700	381LX272M063H042	0.098	0.074	2.20	2.50	22x40
2700	381LX272M063J032	0.098	0.074	2.20	2.50	25x35
2700	381LX272M063K012	0.098	0.074	2.20	2.50	30x25
3300	381LX332M063H052	0.080	0.061	2.50	2.90	22x50
3300	381LX332M063J042	0.080	0.061	2.50	2.90	25x40
3300	381L332M063J052	0.080	0.061	2.50	2.90	25x50
3300	381LX332M063K022	0.080	0.061	2.50	2.90	30x30
3300	381L332M063K042	0.080	0.061	2.50	2.90	30x40
3300	381LX332M063A012	0.080	0.061	2.50	2.90	35x25
3300	380L332M063A022	0.080	0.061	2.50	2.90	35x30
3900	381LX392M063J452	0.068	0.051	2.70	3.10	25x45
3900	381LX392M063K032	0.068	0.051	2.70	3.10	30x35
3900	381LX392M063A022	0.068	0.051	2.70	3.10	35x30
4700	381LX472M063J052	0.056	0.042	3.00	3.50	25x50
4700	381LX472M063K042	0.056	0.042	3.00	3.50	30x40
4700	381L472M063K052	0.056	0.042	2.90	3.30	30x50
4700	381LX472M063A022	0.056	0.042	3.00	3.50	35x30
4700	381L472M063A042	0.056	0.042	2.90	3.30	35x40
5600	381LX562M063K452	0.047	0.036	3.30	3.80	30x45
5600	381LX562M063A032	0.047	0.036	3.30	3.80	35x35
6800	381LX682M063K052	0.039	0.029	3.60	4.10	30x50
6800	381LX682M063A042	0.039	0.029	3.60	4.10	35x40
8200	383L822M063N042	0.031	0.018	3.70	4.80	40x40
8200	381LX822M063A452	0.032	0.024	3.90	4.50	35x45
10000	381LX103M063A052	0.027	0.020	4.40	5.10	35x50
12000	383L123M063N052	0.022	0.013	4.70	6.10	40x50
12000	381L123M063A062	0.029	0.012	4.20	6.50	35x63
12000	383LX123M063N042	0.030	0.028	4.52	5.20	40x40

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
63 Vdc (79 Vdc Surge) (cont'd)						
12000	381LX123M063A052	0.035	0.027	4.40	5.10	35x50
15000	383L153M063N062	0.018	0.011	5.70	7.20	40x63
15000	381L153M063A072	0.026	0.010	4.70	7.50	35x70
15000	381LX153M063A062	0.028	0.010	4.80	5.50	35x63
15000	383LX153M063N052	0.033	0.025	4.60	5.30	40x50
18000	381L183M063A082	0.025	0.009	5.10	8.40	35x80
18000	383LX153M063N062	0.028	0.020	5.00	5.90	40x63
22000	383L223M063N082	0.013	0.009	7.20	9.00	40x80
22000	383LX223M063B052V	0.019	0.016	6.76	7.77	50x50
27000	381LX273M063A102	0.017	0.014	6.53	7.51	35x105
27000	383LX273M063B062V	0.017	0.014	7.34	8.44	50x63
27000	383LX273M063N082	0.018	0.014	6.10	7.00	40x80
33000	383LX333M063B082V	0.015	0.013	8.00	9.20	50x80
39000	383LX393M063N102	0.014	0.012	7.53	8.66	40x105
39000	383LX393M063B092V	0.014	0.012	8.48	9.75	50x92
47000	383LX473M063B102V	0.012	0.010	8.99	10.34	50x105
80 Vdc (100 Vdc Surge)						
470	381LX471M080H202	0.480	0.363	0.80	0.90	22x20
470	381L471M080H012	0.480	0.363	0.80	0.90	22x25
680	381L681M080H022	0.332	0.251	1.20	1.40	22x30
680	381LX681M080J202	0.332	0.251	1.00	1.20	25x20
680	381L681M080J012	0.332	0.251	1.20	1.40	25x25
820	381LX821M080G022	0.275	0.208	1.20	1.40	20x30
820	381LX821M080H012	0.275	0.208	1.20	1.40	22x25
1000	381LX102M080G032	0.225	0.170	1.30	1.50	20x35
1000	381LX102M080H022	0.225	0.170	1.30	1.50	22x30
1000	381L102M080H042	0.225	0.170	1.50	1.70	22x40
1000	381LX102M080J012	0.225	0.170	1.30	1.50	25x25
1000	381L102M080J022	0.225	0.170	1.50	1.70	25x30
1000	381LX102M080K202	0.225	0.170	1.20	1.40	30x20
1000	381L102M080K012	0.225	0.170	1.50	1.70	30x25
1200	381L122M080H032	0.166	0.126	1.60	1.80	22x35
1200	381L122M080J022	0.166	0.126	1.60	1.80	25x30
1200	381LX122M080G042	0.188	0.142	1.50	1.70	20x40
1200	381LX122M080H022	0.188	0.142	1.50	1.70	22x30
1200	381LX122M080J012	0.188	0.142	1.50	1.70	25x25
1500	381L152M080H042	0.133	0.101	1.80	2.10	22x40
1500	381L152M080J032	0.133	0.101	1.80	2.10	25x35
1500	381L152M080K012	0.133	0.101	1.80	2.10	30x25
1500	381LX152M080H032	0.150	0.113	1.70	2.00	22x35
1500	381L152M080H052	0.150	0.113	1.80	2.10	22x50
1500	381LX152M080J022	0.150	0.113	1.70	2.00	25x30
1500	381L152M080J042	0.150	0.113	1.80	2.10	25x40
1500	381L152M080K022	0.150	0.113	1.80	2.10	30x30
1500	381LX152M080A202	0.150	0.113	1.40	1.60	35x20
1800	381L182M080H052	0.111	0.084	2.00	2.30	22x50
1800	381L182M080J042	0.111	0.084	2.00	2.30	25x40
1800	381L182M080K022	0.111	0.084	2.00	2.30	30x30
1800	381L182M080A012	0.111	0.084	2.00	2.30	35x25
1800	381LX182M080H042	0.125	0.095	1.80	2.10	22x40
1800	381LX182M080J032	0.125	0.095	1.80	2.10	25x35
1800	381LX182M080K012	0.125	0.095	1.80	2.10	30x25
2200	381L222M080K032	0.090	0.068	2.30	2.60	30x35
2200	381LX222M080H452	0.102	0.077	2.10	2.40	22x45
2200	381LX222M080J032	0.102	0.077	2.10	2.40	25x35
2200	381L222M080J052	0.102	0.077	2.30	2.60	25x50
2200	381LX222M080K022	0.102	0.077	2.10	2.40	30x30
2200	381L222M080K042	0.102	0.077	2.30	2.60	30x40
2200	381LX222M080A012	0.102	0.077	2.10	2.40	35x25
2200	381L222M080A022	0.102	0.077	2.30	2.60	35x30
2700	381L272M080J052	0.074	0.056	2.50	2.90	25x50
2700	381L272M080K042	0.074	0.056	2.50	2.90	30x40
2700	381LX272M080J452	0.084	0.064	2.40	2.80	25x45
2700	381LX272M080K032	0.084	0.064	2.40	2.80	30x35
2700	381LX272M080A022	0.084	0.064	2.40	2.80	35x30

Aluminum  
Snap-In  
Capacitors



# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
80 Vdc (100 Vdc Surge) (cont'd)						
3300	381L332M080A032	0.060	0.045	2.80	3.20	35x35
3300	381LX332M080J052	0.068	0.045	2.60	3.00	25x50
3300	381LX332M080K042	0.068	0.045	2.60	3.00	30x40
3300	381L332M080K052	0.068	0.051	2.80	3.20	30x50
3300	381LX332M080A022	0.068	0.045	2.60	3.00	35x30
3300	381L332M080A042	0.068	0.045	2.80	3.20	35x40
3900	381L392M080K052	0.051	0.039	3.00	3.50	30x50
3900	381L392M080A042	0.051	0.039	3.00	3.50	35x40
3900	381LX392M080K452	0.058	0.044	3.00	3.50	30x45
3900	381LX392M080A032	0.058	0.044	3.00	3.50	35x35
4700	381LX472M080K052	0.048	0.036	3.30	3.80	30x50
4700	381LX472M080A042	0.048	0.036	3.30	3.80	35x40
5600	383L562M080N042	0.035	0.022	3.50	4.40	40x40
5600	381LX562M080A452	0.040	0.030	3.90	4.50	35x45
6800	381LX682M080A052	0.033	0.025	3.90	4.50	35x50
6800	383LX682M080N042	0.041	0.031	3.90	4.49	40x40
8200	381L822M080A062	0.024	0.014	4.60	5.90	35x63
8200	383L822M080N052	0.025	0.016	4.40	5.60	40x50
10000	381L103M080A072	0.020	0.012	5.40	6.90	35x70
10000	383L103M080N062	0.021	0.013	5.30	6.70	40x63
12000	381L123M080A082	0.017	0.011	6.10	7.70	35x80
12000	383LX123M080B052V	0.035	0.026	6.03	6.93	50x50
15000	383L153M080N082	0.015	0.010	6.80	8.40	40x80
15000	381LX153M080A102	0.024	0.018	6.13	7.05	35x105
15000	383LX153M080B062V	0.028	0.021	6.65	7.65	50x63
18000	383LX183M080B082V	0.026	0.019	7.29	8.38	50x80
22000	383LX223M080N102	0.019	0.014	6.95	7.99	40x105
22000	383LX223M080B092V	0.022	0.016	7.83	9.00	50x92
27000	383LX273M080B102V	0.018	0.014	8.38	9.64	50x105
100 Vdc (125 Vdc Surge)						
330	381LX331M100H202	0.603	0.456	0.80	0.90	22x20
330	381L331M100H012	0.603	0.456	0.70	0.80	22x25
470	381L471M100H012	0.423	0.320	1.20	1.40	22x25
470	381L471M100H022	0.423	0.320	1.20	1.40	22x30
470	381LX471M100J202	0.423	0.320	1.00	1.20	25x20
470	381L271M100J012	0.423	0.320	1.20	1.40	25x25
560	381LX561M100G022	0.355	0.268	1.10	1.30	20x30
560	381LX561M100H012	0.355	0.268	1.10	1.30	22x25
680	381L681M100H022	0.293	0.222	1.40	1.60	22x30
680	381L681M100H042	0.293	0.222	1.40	1.60	22x40
680	381L681M100J012	0.293	0.222	1.40	1.60	25x25
680	381L681M100J022	0.293	0.222	1.40	1.60	25x30
680	381LX681M100K202	0.293	0.222	1.10	1.30	30x20
680	381L681M100K012	0.293	0.222	1.40	1.60	30x25
820	381LX821M100G032	0.243	0.184	1.40	1.60	20x35
820	381LX821M100H022	0.243	0.184	1.40	1.60	22x30
820	381L821M100H032	0.243	0.184	1.50	1.70	22x35
820	381LX821M100J012	0.243	0.184	1.40	1.60	25x25
1000	381LX102M100G042	0.199	0.151	1.70	2.00	20x40
1000	381LX102M100H032	0.199	0.151	1.70	2.00	22x35
1000	381L102M100H042	0.199	0.151	1.70	2.00	22x40
1000	381L102M100H052	0.199	0.151	1.70	2.00	22x50
1000	381LX102M100J022	0.199	0.151	1.70	2.00	25x30
1000	381L102M100J032	0.199	0.151	1.70	2.00	25x35
1000	381L102M100J042	0.199	0.151	1.70	2.00	25x40
1000	381L102M100K012	0.199	0.151	1.70	2.00	30x25
1000	381L102M100K022	0.199	0.151	1.70	2.00	30x30
1000	381LX102M100A202	0.199	0.151	1.20	1.40	35x20
1200	381LX122M100H042	0.166	0.126	1.80	2.10	22x40
1200	381LX122M100J032	0.166	0.126	1.80	2.10	25x35
1200	381LX122M100K012	0.166	0.126	1.80	2.10	30x25
1200	381L122M100K022	0.166	0.126	1.80	2.10	30x30
1500	381LX152M100H452	0.133	0.101	2.10	2.40	22x45
1500	381LX152M100J042	0.133	0.101	2.10	2.40	25x40
1500	381L152M100J052	0.133	0.101	2.10	2.40	25x50

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
100 Vdc (125 Vdc Surge) (cont'd)						
1500	381LX152M100K022	0.133	0.101	2.10	2.40	30x30
1500	381L152M100K032	0.133	0.101	2.10	2.40	30x35
1500	381L152M100K042	0.133	0.101	2.10	2.40	30x40
1500	381LX152M100A012	0.133	0.101	2.10	2.40	35x25
1500	381L152M100A022	0.133	0.101	2.10	2.40	35x30
1800	381LX182M100J452	0.111	0.084	2.30	2.60	25x45
1800	381L182M100J052	0.111	0.084	2.30	2.60	25x50
1800	381LX182M100K032	0.111	0.084	2.30	2.60	30x35
1800	381L182M100K042	0.111	0.084	2.30	2.60	30x40
1800	381LX182M100A022	0.111	0.084	2.30	2.60	35x30
2200	381LX222M100J052	0.090	0.068	2.60	3.00	25x50
2200	381LX222M100K042	0.090	0.068	2.60	3.00	30x40
2200	381L222M100K052	0.090	0.068	2.60	3.00	30x50
2200	381LX222M100A022	0.090	0.068	2.60	3.00	35x30
2200	381L222M100A032	0.090	0.068	2.60	3.00	35x35
2200	381L222M100A042	0.090	0.068	2.60	3.00	35x40
2700	381LX272M100K452	0.074	0.056	2.90	3.30	30x45
2700	381L272M100K052	0.074	0.056	2.80	3.20	30x50
2700	381LX272M100A032	0.074	0.056	2.90	3.30	35x35
2700	381L272M100A042	0.074	0.056	2.80	3.20	35x40
3300	383L332M100N042	0.046	0.020	3.00	4.30	40x40
3300	381LX332M100K052	0.060	0.045	3.20	3.70	30x50
3300	381LX332M100A042	0.060	0.045	3.20	3.70	35x40
3900	381LX392M100A052	0.031	0.016	3.80	4.40	35x50
3900	381LX392M100A452	0.051	0.039	3.60	4.10	35x45
4700	381L472M100A062	0.032	0.013	4.00	5.80	35x63
4700	383L472M100N052	0.033	0.014	3.90	5.50	40x50
4700	381LX472M100A052	0.042	0.032	3.80	4.40	35x50
4700	383LX472M100N042	0.053	0.040	3.80	5.70	40x40
5600	381L562M100A072	0.027	0.011	4.70	6.70	35x70
5600	383L562M100N062	0.027	0.012	4.60	6.50	40x63
5600	381LX562M100A062	0.059	0.045	4.10	4.70	35x63
6800	381L682M100A082	0.023	0.010	5.30	7.50	35x80
6800	383LX682M100N052	0.049	0.038	4.20	4.80	40x50
8200	383L822M100N082	0.020	0.009	6.00	8.20	40x80
8200	383LX822M100B052V	0.030	0.023	6.14	7.06	50x50
8200	381LX822M100A082	0.040	0.031	4.50	5.10	35x80
8200	383LX822M100N062	0.040	0.030	4.60	5.30	40x63
10000	381LX103M100A102	0.025	0.019	6.38	7.34	35x105
12000	383LX123M100B062V	0.022	0.017	7.17	8.25	50x63
12000	383LX123M100N082	0.028	0.022	5.00	5.70	40x80
15000	383LX153M100N102	0.017	0.012	7.37	8.48	40x105
15000	383LX153M100B082V	0.019	0.014	8.01	9.21	50x80
18000	383LX183M100B092V	0.017	0.012	8.64	9.94	50x92
22000	383LX223M100B102V	0.015	0.011	9.32	10.72	50x105
160 Vdc (200 Vdc Surge)						
150	381LX151M160H202	1.326	0.677	0.60	0.80	22x20
150	381L151M160H012	1.326	0.677	0.70	1.00	22x25
180	381L181M160H012	1.105	0.564	0.80	1.10	22x25
220	381LX221M160G012	0.904	0.461	1.00	1.40	20x25
220	381L221M160H022	0.904	0.461	1.00	1.40	22x30
220	381LX221M160J202	0.904	0.461	0.80	1.10	25x20
220	381L221M160J012	0.904	0.461	1.00	1.40	25x25
270	381LX271M160G022	0.737	0.376	1.10	1.50	20x30
270	381LX271M160H012	0.737	0.376	1.10	1.50	22x25
270	381L271M160H022	0.737	0.376	1.10	1.50	22x30
270	381L271M160J012	0.737	0.376	1.10	1.50	25x25
330	381LX331M160G032	0.603	0.308	1.20	1.70	20x35
330	381LX331M160H022	0.603	0.308	1.20	1.70	22x30
330	381L331M160H032	0.603	0.308	1.20	1.70	22x35
330	381L331M160H042	0.603	0.308	1.20	1.70	22x40
330	381L331M160J022	0.603	0.308	1.20	1.70	25x30
330	381LX331M160K202	0.603	0.308	1.00	1.40	30x20
330	381L331M160K012	0.603	0.308	1.20	1.70	30x25
390	381LX391M160G042	0.510	0.200	1.30	1.80	20x40

Aluminum  
Snap-In  
Capacitors

# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
160 Vdc (200 Vdc Surge) (cont'd)						
390	381LX391M160H022	0.510	0.200	1.30	1.80	22x30
390	381L391M160H042	0.510	0.200	1.30	1.80	22x40
390	381LX391M160J012	0.510	0.200	1.30	1.80	25x25
390	381L391M160J022	0.510	0.200	1.30	1.80	25x30
390	381L391M160K012	0.510	0.200	1.30	1.80	30x25
470	381LX471M160H022	0.423	0.216	1.40	2.00	22x30
470	381LX471M160H032	0.423	0.216	1.40	2.00	22x35
470	381L471M160H052	0.423	0.216	1.40	2.00	22x50
470	381LX471M160J022	0.423	0.216	1.40	2.00	25x30
470	381L471M160J032	0.423	0.216	1.40	2.00	25x35
470	381L471M160J042	0.423	0.216	1.40	2.00	25x40
470	381L471M160K022	0.423	0.216	1.40	2.00	30x30
470	381LX471M160A202	0.423	0.216	1.10	1.50	35x20
560	381LX561M160H032	0.355	0.181	1.50	2.10	22x35
560	381LX561M160H042	0.355	0.181	1.50	2.10	22x40
560	381L561M160H052	0.355	0.181	1.50	2.10	22x50
560	381LX561M160J022	0.355	0.181	1.50	2.10	25x30
560	381L561M160J042	0.355	0.181	1.50	2.10	25x40
560	381LX561M160K012	0.355	0.181	1.50	2.10	30x25
560	381L561M160K032	0.355	0.181	1.50	2.10	30x30
560	381L561M160A012	0.355	0.181	1.50	2.10	35x25
680	381LX681M160H042	0.293	0.150	1.70	2.40	22x40
680	381LX681M160H452	0.293	0.150	1.70	2.40	22x45
680	381LX681M160J022	0.293	0.150	1.70	2.40	25x30
680	381LX681M160J032	0.293	0.150	1.70	2.40	25x35
680	381L681M160J052	0.293	0.150	1.70	2.40	25x50
680	381LX681M160K022	0.293	0.150	1.70	2.40	30x30
680	381L681M160K032	0.293	0.150	1.70	2.40	30x35
680	381L681M160A022	0.293	0.150	1.70	2.40	35x30
820	381LX821M160H452	0.243	0.124	2.00	2.80	22x45
820	381LX821M160J032	0.243	0.124	2.00	2.80	25x35
820	381LX821M160J042	0.243	0.124	2.00	2.80	25x40
820	381L821M160J052	0.243	0.124	2.00	2.80	25x50
820	381LX821M160K022	0.243	0.124	2.00	2.80	30x30
820	381L821M160K042	0.243	0.124	2.00	2.80	30x40
820	381L821M160K052	0.243	0.124	2.00	2.80	30x50
820	381L821M160A022	0.243	0.124	2.00	2.80	35x30
820	381L821M160A042	0.243	0.124	2.00	2.80	35x40
1000	381LX102M160H052	0.199	0.102	2.20	3.10	22x50
1000	381LX102M160J042	0.199	0.102	2.20	3.10	25x40
1000	381LX102M160J452	0.199	0.102	2.20	3.10	25x45
1000	381LX102M160K022	0.199	0.102	2.20	3.10	30x30
1000	381LX102M160K032	0.199	0.102	2.20	3.10	30x35
1000	381L102M160K052	0.199	0.102	2.20	3.10	30x50
1000	381LX102M160A012	0.199	0.102	2.20	3.10	35x25
1000	381L102M160A032	0.199	0.102	2.20	3.10	35x35
1200	381LX122M160J452	0.166	0.085	2.30	3.20	25x45
1200	381LX122M160J052	0.166	0.085	2.30	3.20	25x50
1200	381LX122M160K032	0.166	0.085	2.30	3.20	30x35
1200	381LX122M160K042	0.166	0.085	2.30	3.20	30x40
1200	381LX122M160A022	0.166	0.085	2.30	3.20	35x30
1200	381L122M160A042	0.166	0.085	2.30	3.20	35x40
1500	381LX152M160K042	0.133	0.068	2.50	3.50	30x40
1500	381LX152M160K452	0.133	0.068	2.50	3.50	30x45
1500	381LX152M160A022	0.133	0.068	2.50	3.50	35x30
1500	381LX152M160A032	0.133	0.068	2.50	3.50	35x35
1800	381LX182M160K452	0.111	0.057	2.70	3.80	30x45
1800	381LX182M160K052	0.111	0.057	2.70	3.80	30x50
1800	381LX182M160A032	0.111	0.057	2.70	3.80	35x35
1800	381LX182M160A042	0.111	0.057	2.70	3.80	35x40
2200	381L222M160A062	0.050	0.027	3.30	4.50	35x63
2200	381LX222M160A452	0.090	0.046	2.90	4.10	35x45
2200	381LX222M160A052	0.090	0.046	2.90	4.10	35x50
2200	383LX222M160N042	0.105	0.063	2.90	4.06	40x40
2700	381L272M160A072	0.043	0.023	3.80	5.20	35x70
2700	383L272M160N062	0.045	0.027	3.80	5.00	40x63

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
2700	381LX272M160A052	0.074	0.037	3.10	4.40	35x50
3300	381L332M160A082	0.037	0.020	3.80	5.90	35x80
3300	383LX332M160N052	0.070	0.042	3.36	4.70	40x50
3900	383L392M160A082	0.029	0.017	4.90	6.30	40x80
180 Vdc (225 Vdc Surge)						
180	381L181M180H012	1.105	0.564	0.80	1.10	22x25
220	381LX221M180G022	0.904	0.461	1.00	1.40	20x30
220	381LX221M180H012	0.904	0.461	1.00	1.40	22x25
220	381L221M180H022	0.904	0.461	1.00	1.40	22x30
220	381L221M180J012	0.904	0.461	1.00	1.40	25x25
270	381LX271M180G032	0.737	0.376	1.10	1.50	20x35
270	381LX271M180H012	0.737	0.376	1.10	1.50	22x25
270	381L271M180H032	0.737	0.376	1.10	1.50	22x35
330	381LX331M180H022	0.603	0.308	1.20	1.70	22x30
330	381LX331M180J012	0.603	0.308	1.20	1.70	25x25
330	381L331M180J022	0.603	0.308	1.20	1.70	25x30
330	381L331M180K012	0.603	0.308	1.20	1.70	30x25
390	381L391M180H022	0.510	0.260	1.30	1.80	22x30
390	381L391M180H042	0.510	0.260	1.30	1.80	22x40
390	381LX391M180J012	0.510	0.260	1.30	1.80	25x25
390	381L391M180J032	0.510	0.260	1.30	1.80	25x35
470	381LX471M180H032	0.423	0.216	1.40	2.00	22x35
470	381L471M180H052	0.423	0.216	1.40	2.00	22x50
470	381LX471M180J022	0.423	0.216	1.40	2.00	25x30
470	381L471M180J042	0.423	0.216	1.40	2.00	25x40
470	381LX471M180K012	0.423	0.216	1.40	2.00	30x25
470	381L471M180K022	0.423	0.216	1.40	2.00	30x30
470	381L471M180A012	0.423	0.216	1.40	2.00	35x25
560	381LX561M180H042	0.355	0.181	1.50	2.10	22x40
560	381LX561M180J022	0.355	0.181	1.50	2.10	25x30
560	381LX561M180J032	0.355	0.181	1.50	2.10	25x35
560	381LX561M180K012	0.355	0.181	1.50	2.10	30x25
560	381L561M180K032	0.355	0.181	1.50	2.10	30x35
680	381LX681M180H452	0.293	0.149	1.70	2.40	22x45
680	381LX681M180H052	0.293	0.149	1.70	2.40	22x50
680	381LX681M180J032	0.293	0.149	1.70	2.40	25x35
680	381LX681M180J042	0.293	0.149	1.70	2.40	25x40
680	381L681M180J052	0.293	0.149	1.70	2.40	25x50
680	381LX681M180K022	0.293	0.149	1.70	2.40	30x30
680	381L681M180K042	0.293	0.149	1.70	2.40	30x40
680	381L681M180A022	0.293	0.149	1.70	2.40	35x30
820	381LX821M180H052	0.243	0.124	2.00	2.80	22x50
820	381LX821M180J042	0.243	0.124	2.00	2.80	25x40
820	381LX821M180J452	0.243	0.124	2.00	2.80	25x45
820	381LX821M180K022	0.243	0.124	2.00	2.80	30x30
820	381LX821M180K032	0.243	0.124	2.00	2.80	30x35
820	381L821M180A032	0.243	0.124	2.00	2.80	35x35
1000	381LX102M180J452	0.199	0.102	2.20	3.10	25x45
1000	381LX102M180K032	0.199	0.102	2.20	3.10	30x35
1000	381LX102M180K042	0.199	0.102	2.20	3.10	30x40
1000	381L102M180K052	0.199	0.102	2.20	3.10	30x50
1000	381LX102M180A022	0.199	0.102	2.20	3.10	35x30
1000	381L102M180A042	0.199	0.102	2.20	3.10	35x40
1200	381LX122M180J052	0.166	0.085	2.30	3.20	25x50
1200	381LX122M180K042	0.166	0.085	2.30	3.20	30x40
1200	381LX122M180K452	0.166	0.085	2.30	3.20	30x45
1200	381LX122M180A022	0.166	0.085	2.30	3.20	35x30
1500	381LX152M180K452	0.133	0.068	2.50	3.50	30x45
1500	381LX152M180K052	0.133	0.068	2.50	3.50	30x50
1500	381LX152M180A032	0.133	0.068	2.50	3.50	35x35
1500	381LX152M180A042	0.133	0.068	2.50	3.50	35x40
1800	381L182M180A062	0.055	0.028	3.20	4.50	35x63
1800	383L182M180N052	0.059	0.033	3.10	4.20	40x50
1800	381LX182M180A452	0.111	0.028	2.70	3.80	35x45
2200	381L222M180A072	0.046	0.024	3.70	5.20	35x70
2200	383L222M180N062	0.048	0.027	3.70	4.90	40x63

Aluminum  
Snap-In  
Capacitors



# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
180 Vdc (225 Vdc Surge) (cont'd)						
2200	381LX222M180A052	0.090	0.046	2.90	4.10	35x50
2700	381L272M180A082	0.039	0.021	4.30	5.90	35x80
3300	383L332M180N082	0.035	0.020	4.80	6.30	40x80
200 Vdc (250 Vdc Surge)						
100	381LX101M200H202	1.989	1.015	0.50	0.70	22x20
100	381L101M200H012	1.989	1.015	0.70	1.00	22x25
150	381L151M200H012	1.326	0.677	0.80	1.10	22x25
150	381L151M200H022	1.326	0.677	0.80	1.10	22x30
150	381LX151M200J202	1.326	0.677	0.70	0.90	25x20
150	381L151M200J012	1.326	0.677	0.80	1.10	25x25
220	381LX221M200G022	0.904	0.461	1.00	1.40	20x30
220	381LX221M200H012	0.904	0.461	1.00	1.40	22x25
220	381L221M200H022	0.904	0.461	1.00	1.40	22x30
220	381L221M200H042	0.904	0.461	1.00	1.40	22x40
220	381L221M200J012	0.904	0.461	1.00	1.40	25x25
220	381L221M200J022	0.904	0.461	1.00	1.40	25x30
220	381LX221M200K202	0.904	0.461	0.90	1.20	30x20
220	381L221M200K012	0.904	0.461	1.00	1.40	30x25
270	381LX271M200G032	0.737	0.376	1.10	1.50	20x35
270	381LX271M200H022	0.737	0.376	1.10	1.50	22x30
270	381L271M200H032	0.737	0.376	1.10	1.50	22x35
270	381LX271M200J012	0.737	0.376	1.10	1.50	25x25
270	381L271M200J022	0.737	0.376	1.10	1.50	25x30
270	381L271M200K012	0.737	0.376	1.10	1.50	30x25
330	381LX331M200G042	0.603	0.308	1.20	1.70	20x40
330	381LX331M200H022	0.603	0.308	1.20	1.70	22x30
330	381L331M200H042	0.603	0.308	1.20	1.70	22x40
330	381L331M200H052	0.603	0.308	1.20	1.70	22x50
330	381LX331M200J012	0.603	0.308	1.20	1.70	25x25
330	381L331M200J042	0.603	0.308	1.20	1.70	25x40
330	381L331M200K022	0.603	0.308	1.20	1.70	30x30
330	381LX331M200A202	0.603	0.308	1.10	1.50	35x20
390	381LX391M200H022	0.510	0.260	1.30	1.80	22x30
390	381LX391M200H032	0.510	0.260	1.30	1.80	22x35
390	381LX391M200J012	0.510	0.260	1.30	1.80	25x25
390	381LX391M200J022	0.510	0.260	1.30	1.80	25x30
390	381L391M200J032	0.510	0.260	1.30	1.80	25x35
390	381LX391M200K012	0.510	0.260	1.30	1.80	30x25
390	381L391M200K022	0.510	0.260	1.30	1.80	30x30
390	381L391M200A012	0.510	0.260	1.30	1.80	35x25
470	381LX471M200H032	0.423	0.216	1.40	2.00	22x35
470	381LX471M200H042	0.423	0.216	1.40	2.00	22x40
470	381L471M200H052	0.423	0.216	1.40	2.00	22x50
470	381LX471M200J022	0.423	0.216	1.40	2.00	25x30
470	381LX471M200J032	0.423	0.216	1.40	2.00	25x35
470	381L471M200J042	0.423	0.216	1.40	2.00	25x40
470	381L471M200J052	0.423	0.216	1.40	2.00	25x50
470	381LX471M200K012	0.423	0.216	1.40	2.00	30x25
470	381L471M200K042	0.423	0.216	1.40	2.00	30x40
470	381L471M200A022	0.423	0.216	1.40	2.00	35x30
560	381LX561M200H042	0.355	0.181	1.50	2.10	22x40
560	381LX561M200H452	0.355	0.181	1.50	2.10	22x45
560	381LX561M200J022	0.355	0.181	1.50	2.10	25x30
560	381LX561M200J032	0.355	0.181	1.50	2.10	25x35
560	381L561M200J052	0.355	0.181	1.50	2.10	25x50
560	381LX561M200K012	0.355	0.181	1.50	2.10	30x25
560	381LX561M200K022	0.355	0.181	1.50	2.10	30x30
560	381L561M200K032	0.355	0.181	1.50	2.10	30x35
560	381L561M200A022	0.355	0.181	1.50	2.10	35x30
680	381LX681M200H452	0.293	0.149	1.70	2.40	22x45
680	381LX681M200J032	0.293	0.149	1.70	2.40	25x35
680	381LX681M200J042	0.293	0.149	1.70	2.40	25x40
680	381LX681M200K022	0.293	0.149	1.70	2.40	30x30
680	381L681M200K042	0.293	0.149	1.70	2.40	30x40
680	381L681M200K052	0.293	0.149	1.70	2.40	30x50
680	381L681M200A032	0.293	0.149	1.70	2.40	35x35
680	381L681M200A042	0.293	0.149	1.70	2.40	35x40
820	381LX821M200J452	0.243	0.124	2.00	2.80	25x45

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
200 Vdc (250 Vdc Surge) (cont'd)						
820	381LX821M200J052	0.243	0.124	2.00	2.80	25x50
820	381LX821M200K022	0.243	0.124	2.00	2.80	30x30
820	381LX821M200K032	0.243	0.124	2.00	2.80	30x35
820	381L821M200K052	0.243	0.124	2.00	2.80	30x50
820	381LX821M200A012	0.243	0.124	2.00	2.80	35x25
820	381L821M200A042	0.243	0.124	2.00	2.80	35x40
1000	381LX102M200J052	0.199	0.102	2.20	3.10	25x50
1000	381LX102M200K032	0.199	0.102	2.20	3.10	30x35
1000	381LX102M200K042	0.199	0.102	2.20	3.10	30x40
1000	381LX102M200A022	0.199	0.102	2.20	3.10	35x30
1000	381LX102M200A032	0.199	0.102	2.20	3.10	35x35
1000	381L102M200A052	0.199	0.102	1.90	2.70	35x50
1200	381LX122M200K042	0.166	0.085	2.30	3.20	30x40
1200	381LX122M200K052	0.166	0.085	2.30	3.20	30x50
1200	381LX122M200A032	0.166	0.085	2.30	3.20	35x35
1200	381LX122M200A042	0.166	0.085	2.30	3.20	35x40
1500	381LX152M200K052	0.133	0.068	2.50	3.50	30x50
1500	381LX152M200A042	0.133	0.068	2.50	3.50	35x40
1500	381LX152M200A052	0.133	0.068	2.50	3.50	35x50
1800	381L182M200A062	0.055	0.028	3.20	4.50	35x63
1800	383L182M200N052	0.063	0.033	3.00	4.10	40x50
1800	381LX182M200A452	0.111	0.068	2.70	3.80	35x45
1800	383LX182M200N042	0.129	0.077	2.70	3.78	40x40
2200	381L222M200A082	0.042	0.021	4.10	5.80	35x80
2200	383L222M200N062	0.051	0.027	3.60	4.90	40x63
2200	381LX222M200A052	0.090	0.046	2.90	4.00	35x50
2700	383L272M200N082	0.032	0.018	4.60	6.20	40x80
2700	381LX272M200A062	0.092	0.047	2.80	3.90	35x63
2700	383LX272M200N052	0.092	0.047	2.80	3.90	40x50
3300	381LX332M200A082	0.075	0.038	3.00	4.20	35x80
3300	383LX332M200N062	0.075	0.038	3.00	4.20	40x63
3300	383LX332M200B052V	0.075	0.045	5.20	7.28	50x50
3900	383LX392M200B062V	0.064	0.038	5.90	8.26	50x63
4700	381LX472M200A102	0.046	0.028	5.70	7.98	35x105
4700	383LX472M200N082	0.053	0.038	3.30	4.60	40x80
4700	383LX472M200B082V	0.053	0.032	6.82	9.55	50x80
5600	383LX562M200N102	0.041	0.025	6.76	9.46	40x105
5600	383LX562M200B092V	0.044	0.027	7.68	10.75	50x92
6800	383LX682M200B102V	0.034	0.020	8.71	12.19	50x105
250 Vdc (300 Vdc Surge)						
68	381LX680M250H202	2.926	1.493	0.40	0.60	22x20
68	381L680M250H012	2.926	1.493	0.50	0.60	22x25
100	381L101M250H012	1.989	1.015	0.70	1.00	22x25
100	381L101M250H022	1.989	1.015	0.70	1.00	22x30
100	381LX101M250J202	1.989	1.015	0.50	0.70	25x20
100	381L101M250J012	1.989	1.015	0.70	1.00	25x25
150	381L151M250H022	1.326	0.677	0.80	1.10	22x30
150	381L151M250H042	1.326	0.677	0.80	1.10	22x40
150	381L151M250J012	1.326	0.677	0.80	1.10	25x25
150	381L151M250J022	1.326	0.677	0.80	1.10	25x30
150	381LX151M250K202	1.326	0.677	0.70	0.90	30x20
150	381L151M250K012	1.326	0.677	0.80	1.10	30x25
180	381LX181M250H012	0.921	0.461	0.90	1.26	22x25
180	381LX181M250G032	1.105	0.564	0.90	1.30	20x35
180	381LX181M250H022	1.105	0.564	0.90	1.30	22x30
180	381L181M250H032	1.105	0.564	0.90	1.30	22x35
180	381LX181M250J012	1.105	0.564	0.90	1.30	25x25
220	381LX221M250G042	0.904	0.461	1.00	1.40	20x40
220	381LX221M250H022	0.904	0.461	1.00	1.40	22x30
220	381L221M250H042	0.904	0.461	1.00	1.40	22x40
220	381L221M250H052	0.904	0.461	1.10	1.50	22x50
220	381LX221M250J012	0.904	0.461	1.00	1.40	25x25
220	381L221M250J022	0.904	0.461	1.00	1.40	25x30
220	381L221M250J042	0.904	0.461	1.10	1.50	25x40
220	381L221M250K012	0.904	0.461	1.00	1.40	30x25

Aluminum  
Snap-In  
Capacitors

# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
250 Vdc (300 Vdc Surge) (cont'd)						
220	381L221M250K022	0.904	0.461	1.10	1.50	30x30
220	381LX221M250A202	0.904	0.461	0.90	1.20	35x20
270	381LX271M250H032	0.737	0.376	1.10	1.50	22x35
270	381LX271M250J022	0.737	0.376	1.10	1.50	25x30
270	381L271M250J032	0.737	0.376	1.10	1.50	25x35
270	381LX271M250K012	0.737	0.376	1.10	1.50	30x25
270	381L271M250K022	0.737	0.376	1.10	1.50	30x30
270	381L271M250A012	0.737	0.376	1.10	1.50	35x25
330	381LX331M250H042	0.603	0.308	1.20	1.70	22x40
330	381L331M250H052	0.603	0.308	1.20	1.70	22x50
330	381LX331M250J022	0.603	0.308	1.20	1.70	25x30
330	381LX331M250J032	0.603	0.308	1.20	1.70	25x35
330	381L331M250J042	0.603	0.308	1.20	1.70	25x40
330	381L331M250J052	0.603	0.308	1.30	1.80	25x50
330	381LX331M250K012	0.603	0.308	1.20	1.70	30x25
330	381L331M250K042	0.603	0.308	1.30	1.80	30x40
330	381L331M250A022	0.603	0.308	1.30	1.80	35x30
390	381LX391M250H452	0.510	0.260	1.30	1.80	22x45
390	381LX391M250J032	0.510	0.260	1.30	1.80	25x35
390	381LX391M250K012	0.510	0.260	1.30	1.80	30x25
390	381LX391M250K022	0.510	0.260	1.30	1.80	30x30
390	381L391M250A022	0.510	0.260	1.30	1.80	35x30
470	381LX471M250H052	0.423	0.216	1.40	2.00	22x50
470	381LX471M250J042	0.423	0.216	1.40	2.00	25x40
470	381LX471M250J452	0.423	0.216	1.40	2.00	25x45
470	381L471M250J052	0.423	0.216	1.40	2.00	25x50
470	381LX471M250K022	0.423	0.216	1.40	2.00	30x30
470	381LX471M250K032	0.423	0.216	1.40	2.00	30x35
470	381L471M250K042	0.423	0.216	1.40	2.00	30x40
470	381L471M250K052	0.423	0.216	1.40	2.00	30x50
470	381LX471M250A022	0.423	0.216	1.40	2.00	35x30
470	381L471M250A032	0.423	0.216	1.40	2.00	35x35
470	381L471M250A042	0.423	0.216	1.40	2.00	35x40
560	381LX561M250J452	0.355	0.181	1.50	2.10	25x45
560	381LX561M250J052	0.355	0.181	1.50	2.10	25x50
560	381LX561M250K032	0.355	0.181	1.50	2.10	30x35
560	381L561M250K052	0.355	0.181	1.50	2.10	30x50
560	381LX561M250A012	0.355	0.181	1.50	2.10	35x25
560	381LX561M250A022	0.355	0.181	1.50	2.10	35x30
560	381L561M250A042	0.355	0.181	1.50	2.10	35x40
680	381LX681M250J052	0.244	0.134	1.70	2.38	25x50
680	381LX681M250K042	0.244	0.134	1.70	2.38	30x40
680	381LX681M250A022	0.244	0.134	1.70	2.38	35x30
680	381LX681M250K452	0.293	0.149	1.70	2.40	30x45
680	381LX681M250A032	0.293	0.149	1.70	2.40	35x35
680	381L681M250A052	0.293	0.149	1.80	2.50	35x50
820	381LX821M250K452	0.243	0.124	2.00	2.80	30x45
820	381LX821M250K052	0.243	0.124	2.00	2.80	30x50
820	381LX821M250A032	0.243	0.124	2.00	2.80	35x35
820	381LX821M250A042	0.243	0.124	2.00	2.80	35x40
1000	381LX102M250K052	0.199	0.102	2.20	3.10	30x50
1000	381LX102M250A042	0.199	0.102	2.20	3.10	35x40
1000	381LX102M250A452	0.199	0.102	2.20	3.10	35x45
1200	383L122M250N052	0.081	0.031	2.60	4.30	40x50
1200	381LX122M250A452	0.166	0.085	2.30	3.20	35x45
1200	381LX122M250A052	0.166	0.085	2.30	3.20	35x50
1200	383LX122M250N042	0.180	0.117	2.66	3.72	40x40
1500	381L152M250A072	0.066	0.021	3.10	5.50	35x70
1500	381LX152M250A052	0.132	0.067	2.50	3.50	35x50
1800	381L182M250A082	0.057	0.018	3.60	6.30	35x80
1800	383L182M250N062	0.066	0.025	3.10	5.10	40x63
1800	383LX182M250N052	0.120	0.078	3.25	4.55	40x50
2200	383L222M250N082	0.043	0.017	4.00	6.40	40x80
2200	381LX222M250A082	0.096	0.064	3.75	5.25	35x80
2200	383LX222M250B052V	0.098	0.064	4.35	6.09	50x50
2200	383LX222M250N062	0.113	0.058	2.80	3.90	40x63
2700	381LX272M250A102	0.080	0.052	4.80	6.72	35x105
2700	383LX272M250B062V	0.080	0.052	4.98	6.97	50x63

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
250 Vdc (300 Vdc Surge) (cont'd)						
2700	383LX272M250N082	0.092	0.047	3.10	4.30	40x80
3300	383LX332M250N082	0.065	0.042	4.86	6.80	40x80
3900	383LX392M250N102	0.055	0.036	5.61	7.85	40x105
3900	383LX392M250B082V	0.055	0.036	6.10	8.54	50x80
4300	383LX432M250B092V	0.050	0.033	6.67	9.34	50x92
4700	383LX472M250B102V	0.046	0.030	7.03	9.84	50x105
315 Vdc (365 Vdc Surge)						
56	381L560M315H012	3.553	1.813	0.50	0.70	22x25
82	381LX820M315G022	2.426	1.238	0.60	0.90	20x30
82	381LX820M315H012	2.426	1.238	0.60	0.90	22x25
82	381L820M315H022	2.426	1.238	0.60	0.90	22x30
82	381L820M315J012	2.426	1.238	0.60	0.90	25x25
100	381LX101M315G032	1.989	1.015	0.70	1.00	20x35
100	381LX101M315H022	1.989	1.015	0.70	1.00	22x30
120	381LX121M315G042	1.658	0.846	0.80	1.10	20x40
120	381LX121M315H022	1.658	0.846	0.80	1.10	22x30
120	381L121M315H032	1.658	0.846	0.80	1.10	22x35
120	381LX121M315J012	1.658	0.846	0.80	1.10	25x25
120	381L121M315J022	1.658	0.846	0.80	1.10	25x30
120	381L121M315K012	1.658	0.846	0.80	1.10	30x25
150	381LX151M315H032	1.326	0.677	0.80	1.10	22x35
150	381L151M315H042	1.326	0.677	0.80	1.10	22x40
150	381LX151M315J022	1.326	0.677	0.80	1.10	25x30
150	381L151M315J032	1.326	0.677	0.80	1.10	25x35
150	381LX151M315K012	1.326	0.677	0.80	1.10	30x25
180	381LX181M315H042	1.105	0.564	0.90	1.30	22x40
180	381L181M315H052	1.105	0.564	0.90	1.30	22x50
180	381LX181M315J022	1.105	0.564	0.90	1.30	25x30
180	381LX181M315J032	1.105	0.564	0.90	1.30	25x35
180	381L181M315J042	1.105	0.564	0.90	1.30	25x40
180	381LX181M315K012	1.105	0.564	0.90	1.30	30x25
180	381L181M315K022	1.105	0.564	0.90	1.30	30x30
180	381L181M315A012	1.105	0.564	0.90	1.30	35x25
220	381LX221M315H452	0.904	0.461	1.00	1.40	22x45
220	381LX221M315J032	0.904	0.461	1.00	1.40	25x35
220	381LX221M315J042	0.904	0.461	1.00	1.40	25x40
220	381LX221M315K012	0.904	0.461	1.00	1.40	30x25
220	381LX221M315K022	0.904	0.461	1.00	1.40	30x30
220	381L221M315K032	0.904	0.461	1.00	1.40	30x35
220	381L221M315A022	0.904	0.461	1.00	1.40	35x30
270	381LX271M315H052	0.737	0.376	1.10	1.50	22x50
270	381LX271M315J042	0.737	0.376	1.10	1.50	25x40
270	381LX271M315J452	0.737	0.376	1.10	1.50	25x45
270	381L271M315J052	0.737	0.376	1.10	1.50	25x50
270	381LX271M315K022	0.737	0.376	1.10	1.50	30x30
270	381LX271M315K032	0.737	0.376	1.10	1.50	30x35
270	381L271M315K042	0.737	0.376	1.10	1.50	30x40
270	381LX271M315A022	0.737	0.376	1.10	1.50	35x30
330	381LX331M315J452	0.603	0.308	1.20	1.70	25x45
330	381LX331M315J052	0.603	0.308	1.20	1.70	25x50
330	381LX331M315K032	0.603	0.308	1.20	1.70	30x35
330	381LX331M315K042	0.603	0.308	1.20	1.70	30x40
330	381LX331M315A022	0.603	0.308	1.20	1.70	35x30
330	381L331M315A032	0.603	0.308	1.20	1.70	35x35
390	381L391M315J052	0.510	0.260	1.30	1.80	25x50
390	381L391M315K042	0.510	0.260	1.30	1.80	30x40
390	381LX391M315K452	0.510	0.260	1.30	1.80	30x45
390	381L391M315K052	0.510	0.260	1.30	1.80	30x50
390	381L391M315A022	0.510	0.260	1.30	1.80	35x30
390	381LX391M315A032	0.510	0.260	1.30	1.80	35x35
390	381L391M315A042	0.510	0.260	1.30	1.80	35x40
470	381LX471M315K452	0.423	0.216	1.40	2.00	30x45
470	381LX471M315K052	0.423	0.216	1.40	2.00	30x50
470	381LX471M315A032	0.423	0.216	1.40	2.00	35x35
470	381LX471M315A042	0.423	0.216	1.40	2.00	35x40
560	381LX561M315K052	0.355	0.181	1.50	2.10	30x50
560	381LX561M315A042	0.355	0.181	1.50	2.10	35x40
560	381LX561M315A452	0.355	0.181	1.50	2.10	35x45

Aluminum  
Snap-In  
Capacitors

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# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
315 Vdc (365 Vdc Surge) (cont'd)						
680	381LX681M315A452	0.293	0.149	1.70	2.40	35x45
680	381LX681M315A052	0.293	0.149	1.70	2.40	35x50
820	381L821M315A062	0.180	0.130	1.70	2.10	35x63
820	383L821M315N052	0.190	0.130	1.70	2.10	40x50
820	381LX821M315A052	0.242	0.030	2.00	2.80	35x50
1000	381L102M315A072	0.150	0.110	2.00	2.50	35x70
1200	381L122M315A082	0.130	0.089	2.30	2.80	35x80
1200	383L122M315N062	0.150	0.110	2.10	2.50	40x63
1500	383L152M315N082	0.110	0.055	2.70	3.20	40x80
350 Vdc (400 Vdc Surge)						
56	381L560M350H012	3.553	1.813	0.50	0.70	22x25
68	381LX680M350G012	2.926	1.510	0.60	0.80	20x25
82	381LX820M350G022	2.426	1.238	0.60	0.90	20x30
82	381LX820M350H012	2.426	1.238	0.60	0.90	22x25
82	381L820M350H022	2.426	1.238	0.60	0.90	22x30
82	381L820M350J012	2.426	1.238	0.60	0.90	25x25
100	381LX101M350G032	1.989	1.015	0.70	1.00	20x35
100	381LX101M350H022	1.989	1.015	0.70	1.00	22x30
100	381L101M350H032	1.989	1.015	0.70	1.00	22x35
100	381LX101M350J012	1.989	1.015	0.70	1.00	25x25
100	381L101M350J022	1.989	1.015	0.70	1.00	25x30
100	381L101M350K012	1.989	1.015	0.70	1.00	30x25
120	381LX121M350G042	1.658	0.846	0.80	1.10	20x40
120	381LX121M350H022	1.658	0.846	0.80	1.10	22x30
120	381LX121M350H032	1.658	0.846	0.80	1.10	22x35
120	381L121M350H042	1.658	0.846	0.80	1.10	22x40
120	381LX121M350J012	1.658	0.846	0.80	1.10	25x25
120	381LX121M350J022	1.658	0.846	0.80	1.10	25x30
120	381L121M350J032	1.658	0.846	0.80	1.10	25x35
150	381LX151M350H032	1.326	0.677	0.80	1.10	22x35
150	381LX151M350H042	1.326	0.677	0.80	1.10	22x40
150	381LX151M350J022	1.326	0.677	0.80	1.10	25x30
150	381LX151M350K012	1.326	0.677	0.80	1.10	30x25
150	381L151M350K022	1.326	0.677	0.80	1.10	30x30
150	381L151M350A012	1.326	0.677	0.80	1.10	35x25
180	381LX181M350H042	1.105	0.564	0.90	1.30	22x40
180	381LX181M350H452	1.105	0.564	0.90	1.30	22x45
180	381L181M350H052	1.105	0.564	0.90	1.30	22x50
180	381LX181M350J022	1.105	0.564	0.90	1.30	25x30
180	381LX181M350J032	1.105	0.564	0.90	1.30	25x35
180	381L181M350J042	1.105	0.564	0.90	1.30	25x40
180	381LX181M350K012	1.105	0.564	0.90	1.30	30x25
180	381LX181M350K022	1.105	0.564	0.90	1.30	30x30
180	381L181M350K032	1.105	0.564	0.90	1.30	30x35
220	381LX221M350H452	0.904	0.461	1.00	1.40	22x45
220	381LX221M350H052	0.904	0.461	1.00	1.40	22x50
220	381LX221M350J032	0.904	0.461	1.00	1.40	25x35
220	381LX221M350J042	0.904	0.461	1.00	1.40	25x40
220	381L221M350J052	0.904	0.461	1.00	1.40	25x50
220	381LX221M350K022	0.904	0.461	1.00	1.40	30x30
220	381L221M350K042	0.904	0.461	1.00	1.40	30x40
220	381L221M350A022	0.904	0.461	1.00	1.40	35x30
270	381LX271M350J452	0.737	0.376	1.10	1.50	25x45
270	381LX271M350J052	0.737	0.376	1.10	1.50	25x50
270	381LX271M350K022	0.737	0.376	1.10	1.50	30x30
270	381LX271M350K032	0.737	0.376	1.10	1.50	30x35
270	381LX271M350A012	0.737	0.376	1.10	1.50	35x25
270	381LX271M350A022	0.737	0.376	1.10	1.50	35x30
270	381L271M350A032	0.737	0.376	1.10	1.50	35x35
330	381LX331M350J052	0.603	0.308	1.20	1.70	25x50
330	381LX331M350K042	0.603	0.308	1.20	1.70	30x40
330	381LX331M350K452	0.603	0.308	1.20	1.70	30x45
330	381L331M350K052	0.603	0.308	1.20	1.70	30x50
330	381LX331M350A022	0.603	0.308	1.20	1.70	35x30
330	381LX331M350A032	0.603	0.308	1.20	1.70	35x35
330	381L331M350A042	0.603	0.308	1.20	1.70	35x40
390	381LX391M350K452	0.510	0.260	1.30	1.80	30x45
390	381LX391M350K052	0.510	0.260	1.30	1.80	30x50

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
350 Vdc (400 Vdc Surge) (cont'd)						
390	381LX391M350A022	0.510	0.260	1.30	1.80	35x30
390	381LX391M350A042	0.510	0.260	1.30	1.80	35x40
470	381LX471M350K052	0.423	0.216	1.40	2.00	30x50
470	381LX471M350A042	0.423	0.216	1.40	2.00	35x40
560	383L561M350N042	0.299	0.205	1.30	1.50	40x40
560	381LX561M350A452	0.355	0.181	1.50	2.10	35x45
560	381LX561M350A052	0.355	0.181	1.50	2.10	35x50
680	381LX681M350A052	0.293	0.149	1.70	2.40	35x50
680	383LX681M350N042	0.317	0.127	2.30	3.22	40x40
820	381LX821M350A062	0.303	0.155	2.70	3.70	35x63
820	383LX821M350N052	0.303	0.155	2.70	3.70	40x50
1000	383L102M350N062	0.170	0.117	2.00	2.40	40x63
1000	381L102M350A072	0.173	0.117	1.90	2.30	35x70
1000	383LX102M350B052V	0.216	0.086	3.56	4.96	50x50
1200	381LX122M350A082	0.207	0.106	3.20	4.50	35x80
1200	383LX122M350N062	0.207	0.106	3.20	4.50	40x63
1500	381LX152M350A102	0.144	0.057	4.78	6.69	35x105
1500	383LX152M350B062V	0.144	0.057	4.16	5.82	50x63
1500	383LX152M350N082	0.166	0.085	3.80	5.25	40x80
1800	383LX182M350N102	0.120	0.048	5.23	7.32	40x105
1800	383LX182M350B082V	0.120	0.048	5.69	7.97	50x80
2000	383LX202M350B092V	0.108	0.043	6.34	8.88	50x92
2200	383LX222M350B102V	0.098	0.039	6.60	9.30	50x105
400 Vdc (450 Vdc Surge)						
33	381LX330M400H202	6.029	3.080	0.20	0.30	22x20
33	381L330M400H012	6.029	3.080	0.30	0.40	22x25
47	381L470M400H022	4.233	2.160	0.50	0.70	22x30
47	381LX470M400J202	4.233	2.160	0.30	0.40	25x20
47	381LX470M400J012	4.233	2.160	0.50	0.70	25x25
47	381LX470M400H012	5.644	2.880	0.50	0.70	22x25
56	381LX560M400G022	3.553	1.813	0.50	0.70	20x30
56	381LX560M400H012	3.553	1.813	0.50	0.70	22x25
56	381L560M400H022	4.737	2.417	0.50	0.70	22x30
56	381L560M400J012	4.737	2.417	0.50	0.70	25x25
68	381LX680M400G032	2.926	1.493	0.60	0.80	20x35
68	381LX680M400H022	2.926	1.493	0.60	0.80	22x30
68	381L680M400H042	2.926	1.493	0.60	0.80	22x40
68	381LX680M400J012	2.926	1.493	0.60	0.80	25x25
68	381L681M400J022	2.926	1.493	0.60	0.80	25x30
68	381LX680M400K202	2.926	1.493	0.40	0.50	30x20
68	381L680M400K012	2.926	1.493	0.60	0.80	30x25
68	381L680M400H032	3.901	1.990	0.60	0.80	22x35
82	381LX820M400G042	2.426	1.238	0.60	0.90	20x40
82	381LX820M400H022	2.426	1.238	0.60	0.90	22x30
82	381LX820M400H032	2.426	1.238	0.60	0.90	22x35
82	381LX820M400J012	2.426	1.238	0.60	0.90	25x25
82	381L820M400H042	3.235	1.650	0.60	0.90	22x40
82	381L820M400J022	3.235	1.650	0.60	0.90	25x30
82	381L820M400K012	3.235	1.650	0.60	0.90	30x25
100	381LX101M400H022	1.989	1.015	0.70	1.00	22x30
100	381LX101M400H032	1.989	1.015	0.70	1.00	22x35
100	381L101M400H052	1.989	1.015	0.70	1.00	22x50
100	381LX101M400J012	1.989	1.015	0.70	1.00	25x25
100	381LX101M400J022	1.989	1.015	0.70	1.00	25x30
100	381L101M400J042	1.989	1.015	0.70	1.00	25x40
100	381L101M400K022	1.989	1.015	0.70	1.00	30x30
100	381LX101M400A202	1.989	1.015	0.50	0.70	35x20
100	381L101M400J032	2.653	1.354	0.70	1.00	25x35
120	381LX121M400H032	1.658	0.846	0.80	1.10	22x35
120	381LX121M400H042	1.658	0.846	0.80	1.10	22x40
120	381LX121M400J022	1.658	0.846	0.80	1.10	25x30
120	381LX121M400J032	1.658	0.846	0.80	1.10	25x35
120	381LX121M400K012	1.658	0.846	0.80	1.10	30x25
120	381L121M400H052	2.210	1.128	0.80	1.10	22x50
120	381L121M400J042	2.210	1.128	0.80	1.10	25x40
120	381L121M400K032	2.210	1.128	0.80	1.10	30x35
120	381L121M400A012	2.210	1.128	0.80	1.10	35x25
150	381LX151M400H042	1.326	0.677	0.80	1.10	22x40

Aluminum  
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# Types 381L, 383L, 381LX & 383LX, 105 °C High-Ripple Snap-In

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
400 Vdc (450 Vdc Surge) (cont'd)						
150	381LX151M400H052	1.326	0.677	0.80	1.10	22x50
150	381LX151M400J022	1.326	0.677	0.80	1.10	25x30
150	381LX151M400J042	1.326	0.677	0.80	1.10	25x40
150	381L151M400J052	1.326	0.677	0.80	1.10	25x50
150	381LX151M400K012	1.326	0.677	0.80	1.10	30x25
150	381LX151M400K022	1.326	0.677	0.80	1.10	30x30
150	381L151M400K042	1.326	0.677	0.80	1.10	30x40
150	381L151M400A022	1.326	0.677	0.80	1.10	35x30
150	381L151M400K032	1.768	0.902	0.80	1.10	30x35
180	381LX181M400H452	1.105	0.564	0.90	1.30	22x45
180	381LX181M400J032	1.105	0.564	0.90	1.30	25x35
180	381LX181M400J452	1.105	0.564	0.90	1.30	25x45
180	381LX181M400K022	1.105	0.564	0.90	1.30	30x30
180	381LX181M400K032	1.105	0.564	0.90	1.30	30x35
180	381LX181M400A012	1.105	0.564	0.90	1.30	35x25
180	381L181M400J052	1.474	0.752	0.90	1.30	25x50
180	381L181M400K042	1.474	0.752	0.90	1.30	30x40
180	381L181M400A022	1.474	0.752	0.90	1.30	35x30
220	381LX221M400J452	0.904	0.461	1.00	1.40	25x45
220	381LX221M400J052	0.904	0.461	1.00	1.40	25x50
220	381LX221M400K022	0.904	0.461	1.00	1.40	30x30
220	381LX221M400K042	0.904	0.461	1.00	1.40	30x40
220	381L221M400K052	0.904	0.461	1.00	1.40	30x50
220	381LX221M400A012	0.904	0.461	1.00	1.40	35x25
220	381LX221M400A022	0.904	0.461	1.00	1.40	35x30
220	381L221M400A042	0.904	0.461	1.00	1.40	35x40
220	381L221M400A032	1.206	0.615	1.00	1.40	35x35
270	381LX271M400J052	0.737	0.376	1.10	1.50	25x50
270	381LX271M400K032	0.737	0.376	1.10	1.50	30x35
270	381LX271M400K452	0.737	0.376	1.10	1.50	30x45
270	381LX271M400A022	0.737	0.376	1.10	1.50	35x30
270	381LX271M400A032	0.737	0.376	1.10	1.50	35x35
270	381L271M400K052	0.982	0.501	1.10	1.50	30x50
270	381L271M400A042	0.982	0.501	1.10	1.50	35x40
330	381LX331M400K452	0.603	0.308	1.20	1.70	30x45
330	381LX331M400K052	0.603	0.308	1.20	1.70	30x50
330	381LX331M400A032	0.603	0.308	1.20	1.70	35x35
330	381LX331M400A042	0.603	0.308	1.20	1.70	35x40
330	381L331M400A052	0.603	0.308	1.20	1.70	35x50
390	381LX391M400K052	0.510	0.260	1.30	1.80	30x50
390	381LX391M400A042	0.510	0.260	1.30	1.80	35x40
390	381LX391M400A452	0.510	0.260	1.30	1.80	35x45
470	383LX471M400N042	0.353	0.141	1.80	2.50	40x40
470	381LX471M400A452	0.423	0.216	1.40	2.00	35x45
470	381LX471M400A052	0.423	0.216	1.40	2.00	35x50
560	381L561M400A062	0.254	0.170	1.50	1.80	35x63
560	383L561M400N052	0.259	0.145	1.50	2.00	40x50
560	381LX561M400A052	0.355	0.181	1.50	2.10	35x50
680	383L681M400N062	0.207	0.116	1.80	2.40	40x63
680	383LX681M400N052	0.366	0.187	2.20	3.00	40x50
820	383LX821M400B052V	0.202	0.061	3.20	4.40	50x50
820	381LX821M400A062	0.303	0.155	2.60	3.60	35x63
1000	381LX1021M400A082	0.249	0.127	3.00	4.20	35x80
1000	383LX102M400N062	0.249	0.127	3.00	4.20	40x63
1200	381LX122M400A102	0.138	0.055	3.80	5.30	35x105
1200	383LX122M400B062V	0.152	0.061	4.20	5.90	50x63
1200	383LX122M400N082	0.207	0.106	3.30	4.60	40x80
1500	383LX152M400N102	0.111	0.044	4.80	6.70	40x105
1500	383LX152M400B082V	0.122	0.049	5.20	7.30	50x80
1600	383LX162M400B092V	0.114	0.046	5.60	8.00	50x92
1800	383LX182M400B102V	0.101	0.041	6.48	9.10	50x105

Cap. µF	Catalog Number	Max. ESR Ω @ 25 °C		Ripple Amps Max. @ 105 °C		Nominal Size DxL (mm)
		120 Hz	20 kHz	120 Hz	20 kHz	
450 Vdc (500 Vdc Surge)						
33	381LX330M450H012	8.038	4.101	0.40	0.50	22x25
47	381LX470M450H022	5.644	2.880	0.40	0.60	22x30
47	381LX470M450J012	5.644	2.880	0.40	0.60	25x25
56	381LX560M450H012	2.366	0.947	0.40	0.56	22x25
56	381LX560M450H032	4.737	2.417	0.50	0.70	22x35
68	381LX680M450H022	1.950	0.780	0.50	0.70	22x30
68	381LX680M450J012	1.950	0.780	0.50	0.70	25x25
68	381LX680M450H042	3.901	1.990	0.50	0.70	22x40
68	381LX680M450J022	3.901	1.990	0.50	0.70	25x30
68	381LX680M450K012	3.901	1.990	0.50	0.70	30x25
82	381LX820M450J012	2.022	0.708	0.56	0.78	25x25
82	381LX820M450H022	3.235	1.651	0.60	0.80	22x30
82	381LX820M450J032	3.235	1.651	0.60	0.80	25x35
100	381LX101M450H042	1.326	0.531	0.64	0.90	22x40
100	381LX101M450K012	1.326	0.531	0.64	0.90	30x25
100	381LX101M450H032	2.653	1.354	0.60	0.90	22x35
100	381LX101M450H052	2.653	1.354	0.60	0.90	22x50
100	381LX101M450J022	2.653	1.354	0.60	0.90	25x30
100	381LX101M450J042	2.653	1.354	0.60	0.90	25x40
100	381LX101M450K022	2.653	1.354	0.90	0.90	30x30
100	381LX101M450A012	2.653	1.354	0.60	0.90	35x25
120	381LX121M450K012	1.382	0.484	0.72	1.01	30x25
120	381LX121M450H042	2.210	1.128	0.70	1.00	22x40
120	381LX121M450J032	2.210	1.128	0.70	1.00	25x35
120	381LX121M450K032	2.210	1.128	0.70	1.00	30x35
150	381LX151M450A012	0.884	0.354	0.79	1.11	35x25
150	381LX151M450H052	1.768	0.902	0.80	1.10	22x50
150	381LX151M450J042	1.768	0.902	0.80	1.10	25x40
150	381LX151M450J052	1.768	0.902	0.80	1.10	25x50
150	381LX151M450K022	1.768	0.902	0.80	1.10	30x30
150	381LX151M450K042	1.768	0.902	0.80	1.10	30x40
150	381LX151M450A022	1.768	0.902	0.80	1.10	35x30
180	381LX181M450J452	1.474	0.752	0.90	1.30	25x45
180	381LX181M450K032	1.474	0.752	0.90	1.30	30x35
180	381LX181M450A032	1.474	0.752	0.80	1.10	35x35
220	381LX221M450A022	0.678	0.271	1.00	1.40	35x30
220	381LX221M450J052	1.206	0.615	1.00	1.40	25x50
220	381LX221M450K042	1.206	0.615	1.00	1.40	30x40
220	381LX221M450K052	1.206	0.615	0.90	1.30	30x50
220	381LX221M450A042	1.206	0.615	0.90	1.30	35x40
270	381LX271M450K452	0.982	0.501	1.20	1.70	30x45
270	381LX271M450A032	0.982	0.501	1.20	1.70	35x35
330	381LX331M450K052	0.804	0.410	1.40	2.00	30x50
330	381LX331M450A042	0.804	0.410	1.40	2.00	35x40
390	383LX391M450N042	0.425	0.170	1.68	2.35	40x40
390	381LX391M450A452	0.680	0.347	1.60	2.20	35x45
470	381LX471M450A052	0.564	0.288	1.70	2.40	35x50
560	383L561M450N062	0.219	0.146	1.80	2.40	40x63
560	381LX561M450A062	0.444	0.226	2.20	3.00	35x63
560	383LX561M450N052	0.444	0.226	2.10	2.90	40x50
680	383L681M450A082	0.188	0.124	2.00	2.50	35x80
680	383LX681M450B052V	0.244	0.085	2.90	4.06	50x50
680	383LX681M450N062	0.366	0.187	2.50	3.50	40x63
820	383L821M450N082	0.155	0.103	2.40	3.10	40x80
820	383LX821M450B062V	0.222	0.078	3.42	4.79	50x63
820	383LX821M450A082	0.303	0.155	2.70	3.80	35x80
1000	381LX102M450A102	0.166	0.058	3.47	4.86	35x105
1000	383LX102M450N082	0.249	0.127	3.50	4.90	40x80
1200	383LX122M450N102	0.138	0.048	4.33	6.06	40x105
1200	383LX122M450B082V	0.152	0.053	4.70	6.58	50x80
1300	383LX132M450B092V	0.140	0.049	5.16	7.25	50x92
1500	383LX152M450B102V	0.122	0.043	6.03	8.44	50x105

Aluminum  
Snap-In  
Capacitors



# Type 381LR, 105 °C Ultra-High-Ripple Snap-in

## 25% More Ripple Current Capability



Compared to standard 105 °C snap-ins like the Type 381L/LX the new Type 381LR can handle an extra 25% ripple current or more. This remarkable capability stems from advances in electrolyte that give extremely low ESR values. In high ripple current applications like motor drives you can save by using fewer capacitors.

## Highlights

- ♦ The right choice for motor drive bus capacitors
- ♦ The right choice for UPS bus capacitors
- ♦ Compare to Type 381L
- ♦ Up to 2 times the ripple current

## Specifications

Operating Temperature:	-40°C to + 105°C ≤315Vdc -25°C to + 105°C ≥350Vdc
Rated Voltage:	200 to 450 Vdc
Capacitance:	56 µF to 2,200 µF ± 20%
Leakage Current:	≤ 3 $\sqrt{CV}$ µA, 4 mA max, 5 minutes
Ripple Current Multipliers:	Ambient Temperature

45 °C	60 °C	70 °C	85 °C	105 °C
2.35	2.2	2.0	1.7	1.0

### Frequency

50 Hz	60 Hz	120 Hz	500 Hz	1 kHz	10 kHz & up
0.95	0.98	1.00	1.20	1.25	1.40

Load Life:	3000 h at full load at 105 °C Δ Capacitance ±10% ESR 125% of limit DCL 100% of limit
EIA Ripple Life:	10,000 h at 85 °C, full load per EIA IS-749 Δ Capacitance ±20% ESR 200% of limit DCL 100% of limit
Shelf Life:	1000 h at 105 °C, Δ capacitance ± 10%, ESR 200% of limit, DCL 100% of limit
Vibration:	10 to 55 Hz, 0.06" and 10 g max, 2 h each plane

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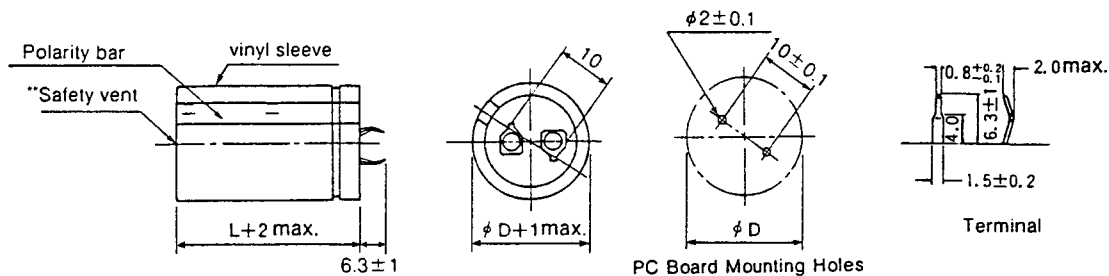
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# Type 381LR, 105 °C Ultra-High-Ripple Snap-in

## Outline Drawings



## Insulated Case Dimentions

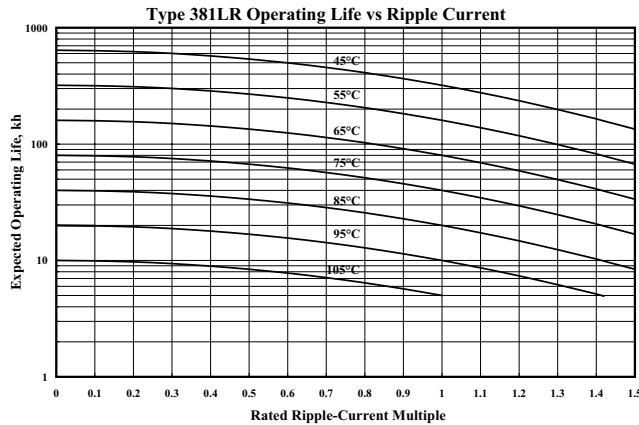
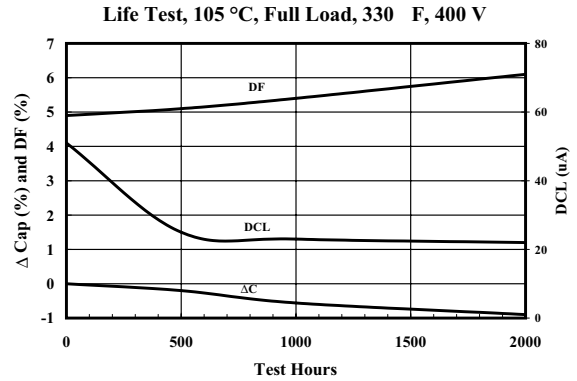
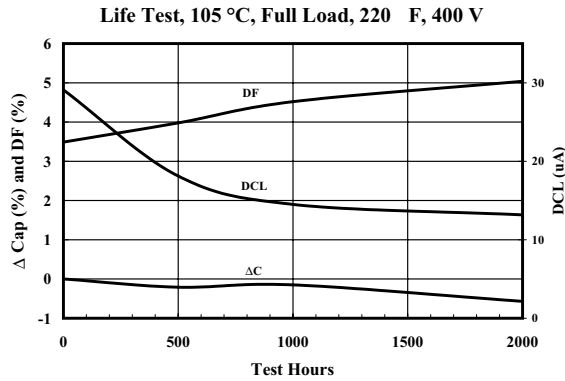
Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)	Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)
	mm	inches	mm	inches			mm	inches	mm	inches	
H01	22	0.87	25	0.98	16	K01	30	1.18	25	0.98	30
H02	22	0.87	30	1.18	19	K02	30	1.18	30	1.18	35
H03	22	0.87	35	1.38	22	K03	30	1.18	35	1.38	40
H04	22	0.87	40	1.57	24	K04	30	1.18	40	1.57	44
H45	22	0.87	45	1.77	28	K45	30	1.18	45	1.77	49
H05	22	0.87	50	1.97	31	K05	30	1.18	50	1.97	53
J01	25	0.98	25	0.98	20	A01	35	1.38	25	0.98	42
J02	25	0.98	30	1.18	24	A02	35	1.38	30	1.18	48
J03	25	0.98	35	1.38	27	A03	35	1.38	35	1.38	54
J04	25	0.98	40	1.57	31	A04	35	1.38	40	1.57	60
J45	25	0.98	45	1.77	35	A45	35	1.38	45	1.77	67
J05	25	0.98	50	1.97	38	A05	35	1.38	50	1.97	74

## Part Numbering System

381LR	271	M	200	H01	2
Type	Capacitance	Tolerance	Rated Voltage	Case Code	Insulation
	271 = 270 $\mu\text{F}$ 222 = 2200 $\mu\text{F}$	M = $\pm 20\%$	160 = 160 V 450 = 450 V		2 = PVC

# Type 381LR, 105 °C Ultra-High-Ripple Snap-in

## Typical Performance Curves



## Ratings

Cap. (μF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
200 Vdc (250 Vdc Surge)						
270	381LR271M200H012	0.553	0.249	1.42	2.03	22 X 25
330	381LR331M200H022	0.452	0.203	1.56	2.23	22 X 30
390	381LR391M200H022	0.383	0.172	1.71	2.44	22 X 30
390	381LR391M200J012	0.383	0.172	1.71	2.44	25 X 25
470	381LR471M200H032	0.317	0.143	1.85	2.64	22 X 35
470	381LR471M200J022	0.317	0.143	1.85	2.64	25 X 30
560	381LR561M200H042	0.266	0.120	2.14	3.05	22 X 40
560	381LR561M200J022	0.266	0.120	2.14	3.05	25 X 30
560	381LR561M200K012	0.266	0.120	2.14	3.05	30 X 25
680	381LR681M200H452	0.219	0.099	2.42	3.45	22 X 45
680	381LR681M200J032	0.219	0.099	2.42	3.45	25 X 35
680	381LR681M200K022	0.219	0.099	2.42	3.45	30 X 30
820	381LR821M200H052	0.182	0.082	2.63	3.76	22 X 50
820	381LR821M200J042	0.182	0.082	2.63	3.76	25 X 40
820	381LR821M200K022	0.182	0.082	2.63	3.76	30 X 30
820	381LR821M200A012	0.182	0.082	2.63	3.76	35 X 25
1000	381LR102M200J452	0.149	0.067	2.84	4.06	25 X 45
1000	381LR102M200K032	0.149	0.067	2.84	4.06	30 X 35
1000	381LR102M200A022	0.149	0.067	2.84	4.06	35 X 30
1200	381LR122M200K042	0.124	0.062	3.13	4.47	30 X 40
1200	381LR122M200A032	0.124	0.062	3.13	4.47	35 X 35
1500	381LR152M200K052	0.099	0.050	3.56	5.06	30 X 50
1500	381LR152M200A042	0.099	0.050	3.56	5.06	35 X 40
1800	381LR182M200A452	0.083	0.041	3.84	5.48	35 X 45
2200	381LR222M200A052	0.066	0.040	4.12	5.89	35 X 50

Cap. (μF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
250 Vdc (300 Vdc Surge)						
220	381LR221M250H022	0.678	0.305	1.28	1.83	22 X 30
270	381LR271M250H022	0.553	0.249	1.42	2.03	22 X 30
270	381LR271M250J012	0.553	0.249	1.42	2.03	25 X 25
330	381LR331M250H032	0.452	0.203	1.64	2.34	22 X 35
330	381LR331M250J022	0.452	0.203	1.64	2.34	25 X 30
390	381LR391M250H042	0.383	0.172	1.72	2.45	22 X 40
390	381LR391M250J022	0.383	0.172	1.72	2.45	25 X 30
390	381LR391M250K012	0.383	0.172	1.72	2.45	30 X 25
470	381LR471M250H452	0.317	0.143	1.85	2.64	22 X 45
470	381LR471M250J032	0.317	0.143	1.85	2.64	25 X 35
470	381LR471M250K022	0.317	0.143	1.85	2.64	30 X 30
560	381LR561M250J042	0.266	0.120	2.14	3.05	25 X 40
560	381LR561M250K022	0.266	0.120	2.14	3.05	30 X 30
560	381LR561M250A012	0.266	0.120	2.14	3.05	35 X 25
680	381LR681M250J452	0.219	0.099	2.42	3.45	25 X 45
680	381LR681M250K032	0.219	0.099	2.42	3.45	30 X 35
680	381LR681M250A022	0.219	0.099	2.42	3.45	35 X 30
820	381LR821M250K042	0.182	0.082	2.63	3.76	30 X 40
820	381LR821M250A032	0.182	0.082	2.63	3.76	35 X 35
1000	381LR102M250K052	0.149	0.067	2.84	4.06	30 X 50
1000	381LR102M250A042	0.149	0.067	2.84	4.06	35 X 40
1200	381LR122M250A452	0.124	0.062	3.13	4.47	35 X 45
1500	381LR152M250A052	0.099	0.050	3.56	5.06	35 X 50
400 Vdc (450 Vdc Surge)						
82	381LR820M400H012	1.617	0.728	0.80	1.14	22 X 25

Aluminum  
Snap-In  
Capacitors

# Aluminum Snap-In Capacitors

Cap. (μF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz (Ω2)	20 kHz (Ω2)	120 Hz (A)	20 kHz (A)	
100	381LR101M400H022	1.326	0.597	0.91	1.30	22 X 30
100	381LR101M400J012	1.326	0.597	0.91	1.30	25 X 25
120	381LR121M400H032	1.105	0.497	1.02	1.46	22 X 35
120	381LR121M400J022	1.105	0.497	1.02	1.46	25 X 30
150	381LR151M400H042	1.105	0.387	1.07	1.53	22 X 40
150	381LR151M400J022	1.105	0.387	1.07	1.53	25 X 30
150	381LR151M400K012	1.105	0.387	1.07	1.53	30 X 25
180	381LR181M400H452	0.737	0.322	1.12	1.60	22 X 45
180	381LR181M400J032	0.737	0.322	1.12	1.60	25 X 35
180	381LR181M400K022	0.737	0.322	1.12	1.60	30 X 30
220	381LR221M400H052	0.603	0.271	1.42	2.03	22 X 50
220	381LR221M400J042	0.603	0.271	1.42	2.03	25 X 40
220	381LR221M400K022	0.603	0.271	1.42	2.03	30 X 30
220	381LR221M400A012	0.603	0.271	1.42	2.03	35 X 25
270	381LR271M400J452	0.491	0.221	1.56	2.23	25 X 45
270	381LR271M400K032	0.491	0.221	1.56	2.23	30 X 35
270	381LR271M400A022	0.491	0.221	1.56	2.23	35 X 30
330	381LR331M400K042	0.402	0.181	1.71	2.44	30 X 40
330	381LR331M400A022	0.402	0.181	1.71	2.44	35 X 30
390	381LR391M400K452	0.340	0.153	1.85	2.64	30 X 45
390	381LR391M400A032	0.340	0.153	1.85	2.64	35 X 35
470	381LR471M400A042	0.282	0.127	2.01	2.87	35 X 40
560	381LR561M400A452	0.237	0.107	2.35	3.36	35 X 45
420 Vdc (470 Vdc Surge)						
68	381LR680M420H012	1.950	0.878	0.76	1.08	22 X 25
82	381LR820M420H022	1.617	0.728	0.80	1.14	22 X 30
82	381LR820M420J012	1.617	0.728	0.80	1.14	25 X 25
100	381LR101M420H022	1.326	0.597	0.91	1.30	22 X 30
100	381LR101M420J012	1.326	0.597	0.91	1.30	25 X 25
120	381LR121M420H032	1.105	0.497	1.02	1.46	22 X 35
120	381LR121M420J022	1.105	0.497	1.02	1.46	25 X 30
150	381LR151M420H042	0.884	0.398	1.07	1.53	22 X 40
150	381LR151M420J032	0.884	0.398	1.07	1.53	25 X 35
150	381LR151M420K012	0.884	0.398	1.07	1.53	30 X 25
180	381LR181M420H452	0.737	0.332	1.12	1.60	22 X 45
180	381LR181M420J042	0.737	0.332	1.12	1.60	25 X 40
180	381LR181M420K022	0.737	0.332	1.12	1.60	30 X 30
180	381LR181M420A012	0.737	0.332	1.12	1.60	35 X 25
220	381LR221M420J452	0.603	0.271	1.42	2.03	25 X 45
220	381LR221M420K032	0.603	0.271	1.42	2.03	30 X 35
220	381LR221M420A022	0.603	0.271	1.42	2.03	35 X 30
270	381LR271M420J052	0.491	0.221	1.68	2.40	25 X 50
270	381LR271M420K042	0.491	0.221	1.68	2.40	30 X 40
270	381LR271M420A022	0.491	0.221	1.68	2.40	35 X 30
330	381LR331M420K452	0.402	0.181	1.78	2.54	30 X 45
330	381LR331M420A032	0.402	0.181	1.78	2.54	35 X 35
390	381LR391M420K052	0.340	0.153	1.91	2.73	30 X 50
390	381LR391M420A042	0.340	0.153	1.91	2.73	35 X 40
470	381LR471M420A452	0.282	0.127	2.23	3.18	35 X 45
450 Vdc (500 Vdc Surge)						
56	381LR560M450H012	2.368	1.066	0.67	0.95	22 X 25
68	381LR680M450H022	1.950	0.878	0.76	1.08	22 X 30
68	381LR680M450J012	1.950	0.878	0.76	1.08	25 X 25
82	381LR820M450H022	1.617	0.728	0.80	1.14	22 X 30
82	381LR820M450J012	1.617	0.728	0.80	1.14	25 X 25
100	381LR101M450H032	1.326	0.597	0.91	1.30	22 X 35
100	381LR101M450J022	1.326	0.597	0.91	1.30	25 X 30
120	381LR121M450H042	1.105	0.497	1.02	1.46	22 X 40
120	381LR121M450J032	1.105	0.497	1.02	1.46	25 X 35
120	381LR121M450K012	1.105	0.497	1.02	1.46	30 X 25
150	381LR151M450H452	0.884	0.396	1.07	1.53	22 X 45
150	381LR151M450J042	0.884	0.396	1.07	1.53	25 X 40

Cap. (μF)	Catalog Part Number	ESR Max @ 25 °C		Ripple Max @ 105 °C		Nominal Size DxL (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
150	381LR151M450K022	0.884	0.396	1.07	1.53	30 X 30
150	381LR151M450A012	0.884	0.396	1.07	1.53	35 X 25
180	381LR181M450H052	0.737	0.332	1.12	1.60	22 X 50
180	381LR181M450J042	0.737	0.332	1.12	1.60	25 X 40
180	381LR181M450K022	0.737	0.332	1.12	1.60	30 X 30
180	381LR181M450A012	0.737	0.332	1.12	1.60	35 X 25
220	381LR221M450J452	0.603	0.271	1.42	2.03	25 X 45
220	381LR221M450K032	0.603	0.271	1.42	2.03	30 X 35
220	381LR221M450A022	0.603	0.271	1.42	2.03	35 X 30
270	381LR271M450K042	0.491	0.221	1.72	2.45	30 X 40
270	381LR271M450A032	0.491	0.221	1.72	2.45	35 X 35
330	381LR331M450K052	0.402	0.181	1.85	2.64	30 X 50
330	381LR331M450A042	0.402	0.181	1.85	2.64	35 X 40
390	381LR391M450A042	0.340	0.153	1.97	2.82	35 X 40
470	381LR471M450A052	0.282	0.127	2.47	3.53	35 X 50

# Type 381EL, 105 °C Ultra-Long Life Snap-In, Aluminum

## More than 100,000 Hours Operation at 65 °C and Rated 105 °C Ripple



The new 381EL extends expected life capability to 15 years or more in typical applications. And that's with the 105 °C rated ripple current applied. With 3.5 times the life of our long-life Type 381LX, the Type 381EL is the choice for hot applications like industrial power supplies, inverter lighting systems and motor drives.

### Highlights

- ♦ High value extended life.
- ♦ Withstands 7000 hours at 105 °C with rated ripple current.
- ♦ Expected life more than 100,000 hours at 65 °C with rated ripple.
- ♦ Rated voltage to 450 Vdc.
- ♦ Made in USA.
- ♦ 50% more ripple current than 381L.

### Specifications

**Operating Temperature:** –40 °C to 105 °C up to 300 V, –25 °C to 105 °C  $\geq$  315 V

**Rated Voltage:** 160 Vdc to 450 Vdc

**Capacitance:** 39 µF to 2200 µF  $\pm$ 20%

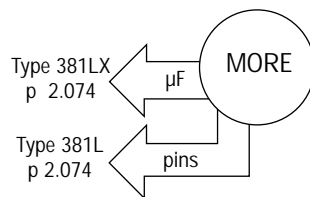
**Leakage Current:**  $\leq 3 \sqrt{CV}$  µA at 5 min.

**Ripple Current Multipliers:** **Ambient Temperature**

45 °C	60 °C	70 °C	85 °C	105 °C
2.35	2.2	2.0	1.55	1.0

#### Frequency

60 Hz	120 Hz	500 Hz	1 kHz	10 kHz & up
0.80	1.0	1.2	1.25	1.4



**Load Life:** 7000 h @ full load at 105°C  
 $\Delta$  Capacitance  $\pm$ 10%  
ESR  $\leq$ 200% of limit  
DCL 100% of limit

**EIA Ripple Life:** 10,000 h @ full load at +85 °C per EIA IS-749  
 $\Delta$  Capacitance  $\pm$ 20%  
ESR  $\leq$ 200% of limit

**Shelf Life:** 1000 h @ 105 °C, capacitance  $\pm$ 20%, DF 200% of limit, DCL 100% of limit.

**Vibration:** 10 to 55 Hz, 0.06" and 10 g max, 2 h in each plane

# Type 381EL, 105 °C Ultra-Long Life Snap-In, Aluminum

## Ratings

Cap. µF	Catalog Part Number	DF Max 120 Hz	ESR Max 25 °C		Ripple Amps Max 105 °C		Nominal Case Size D x L (mm)
			120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
160 Vdc (200 Vdc Surge)							
270	381EL271M160H012	0.12	0.655	0.295	1.10	1.54	22 x 25
330	381EL331M160H022	0.12	0.536	0.241	1.20	1.68	22 x 30
390	381EL391M160H022	0.12	0.453	0.204	1.30	1.82	22 x 30
390	381EL391M160J012	0.12	0.453	0.204	1.30	1.82	25 x 25
470	381EL471M160H032	0.12	0.376	0.169	1.40	1.96	22 x 35
470	381EL471M160J022	0.12	0.376	0.169	1.40	1.96	25 x 30
560	381EL561M160H042	0.12	0.316	0.142	1.50	2.10	22 x 40
560	381EL561M160J022	0.12	0.316	0.142	1.50	2.10	25 x 30
560	381EL561M160K012	0.12	0.316	0.142	1.50	2.10	30 x 25
680	381EL681M160H452	0.12	0.260	0.117	1.70	2.38	22 x 45
680	381EL681M160J032	0.12	0.260	0.117	1.70	2.38	25 x 35
680	381EL681M160K022	0.12	0.260	0.117	1.70	2.38	30 x 30
820	381EL821M160J042	0.12	0.216	0.097	2.00	2.80	25 x 40
820	381EL821M160K022	0.12	0.216	0.097	2.00	2.80	30 x 30
1000	381EL102M160J452	0.12	0.177	0.080	2.20	3.08	25 x 45
1000	381EL102M160K032	0.12	0.177	0.080	2.20	3.08	30 x 35
1200	381EL122M160J052	0.13	0.160	0.080	2.30	3.22	25 x 50
1200	381EL122M160K042	0.13	0.160	0.080	2.30	3.22	30 x 40
1200	381EL122M160A032	0.13	0.160	0.080	2.30	3.22	35 x 35
1500	381EL152M160K452	0.13	0.128	0.064	2.50	3.50	30 x 45
1500	381EL152M160A032	0.13	0.128	0.064	2.50	3.50	35 x 35
1800	381EL182M160K052	0.14	0.115	0.057	2.70	3.78	30 x 50
1800	381EL182M160A042	0.14	0.115	0.057	2.70	3.78	35 x 40
2200	381EL222M160A052	0.14	0.094	0.056	2.90	4.06	35 x 50
180 Vdc (225 Vdc Surge)							
220	381EL221M180H012	0.12	0.804	0.362	1.00	1.40	22 x 25
270	381EL271M180H012	0.12	0.655	0.295	1.10	1.54	22 x 25
330	381EL331M180H022	0.12	0.536	0.241	1.20	1.68	22 x 30
330	381EL331M180J012	0.12	0.536	0.241	1.20	1.68	25 x 25
390	381EL391M180H022	0.12	0.453	0.204	1.30	1.82	22 x 30
390	381EL391M180J012	0.12	0.453	0.204	1.30	1.82	25 x 25
470	381EL471M180H032	0.12	0.376	0.169	1.40	1.96	22 x 35
470	381EL471M180J022	0.12	0.376	0.169	1.40	1.96	25 x 30
470	381EL471M180K012	0.12	0.376	0.169	1.40	1.96	30 x 25
560	381EL561M180H042	0.12	0.316	0.142	1.50	2.10	22 x 40
560	381EL561M180J032	0.12	0.316	0.142	1.50	2.10	25 x 35
560	381EL561M180K012	0.12	0.316	0.142	1.50	2.10	30 x 25
680	381EL681M180H052	0.12	0.260	0.117	1.70	2.38	22 x 50
680	381EL681M180J042	0.12	0.260	0.117	1.70	2.38	25 x 40
680	381EL681M180K022	0.12	0.260	0.117	1.70	2.38	30 x 30
820	381EL821M180J452	0.12	0.216	0.097	2.00	2.80	25 x 45
820	381EL821M180K032	0.13	0.234	0.105	2.00	2.80	30 x 35
820	381EL821M180A022	0.13	0.234	0.105	2.00	2.80	35 x 30
1000	381EL102M180K042	0.13	0.192	0.096	2.20	3.08	30 x 40
1000	381EL102M180A022	0.13	0.192	0.096	2.20	3.08	35 x 30
1200	381EL122M180K452	0.13	0.160	0.080	2.30	3.22	30 x 45
1200	381EL122M180A032	0.14	0.172	0.086	2.30	3.22	35 x 35
1500	381EL152M180K052	0.14	0.138	0.069	2.50	3.50	30 x 50
1500	381EL152M180A042	0.14	0.138	0.069	2.50	3.50	35 x 40
1800	381EL182M180A452	0.14	0.115	0.082	2.70	3.78	35 x 45
2200	381EL222M180A052	0.14	0.094	0.067	2.90	4.06	35 x 50
200 Vdc (250 Vdc Surge)							
220	381EL221M200H012	0.12	0.804	0.362	1.00	1.40	22 x 25
270	381EL271M200H022	0.12	0.655	0.295	1.10	1.54	22 x 30
270	381EL271M200J012	0.12	0.655	0.295	1.10	1.54	25 x 25
330	381EL331M200H022	0.12	0.536	0.241	1.20	1.68	22 x 30
330	381EL331M200J012	0.12	0.536	0.241	1.20	1.68	25 x 25
390	381EL391M200H032	0.12	0.453	0.204	1.30	1.82	22 x 35
390	381EL391M200J022	0.12	0.453	0.204	1.30	1.82	25 x 30
390	381EL391M200K012	0.12	0.453	0.204	1.30	1.82	30 x 25
470	381EL471M200H042	0.12	0.376	0.169	1.40	1.96	22 x 40
470	381EL471M200J032	0.12	0.376	0.169	1.40	1.96	25 x 35
470	381EL471M200K022	0.12	0.376	0.169	1.40	1.96	30 x 30
560	381EL561M200H452	0.12	0.316	0.142	1.50	2.10	22 x 45

Cap. µF	Catalog Part Number	DF Max 120 Hz	ESR Max 25 °C		Ripple Amps Max 105 °C		Nominal Case Size D x L (mm)
			120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
200 Vdc (250 Vdc Surge) (cont'd)							
560	381EL561M200J032	0.12	0.316	0.142	1.50	2.10	25 x 35
560	381EL561M200K022	0.12	0.316	0.142	1.50	2.10	30 x 30
680	381EL681M200J042	0.12	0.260	0.117	1.70	2.38	25 x 40
680	381EL681M200K032	0.12	0.260	0.117	1.70	2.38	30 x 35
820	381EL821M200J052	0.12	0.216	0.097	2.00	2.80	25 x 50
820	381EL821M200K042	0.12	0.216	0.097	2.00	2.80	30 x 40
820	381EL821M200A022	0.12	0.216	0.097	2.00	2.80	35 x 30
1000	381EL102M200K452	0.12	0.177	0.088	2.20	3.08	30 x 45
1000	381EL102M200A032	0.12	0.177	0.088	2.20	3.08	35 x 35
1200	381EL122M200K052	0.13	0.160	0.080	2.30	3.22	30 x 50
1200	381EL122M200A042	0.13	0.160	0.080	2.30	3.22	35 x 40
1500	381EL152M200A052	0.13	0.128	0.064	2.50	3.50	35 x 50
250 Vdc (300 Vdc Surge)							
180	381EL181M250H022	0.10	0.819	0.409	0.90	1.26	22 x 30
180	381EL181M250J012	0.10	0.819	0.409	0.90	1.26	25 x 25
220	381EL221M250H022	0.10	0.670	0.335	1.00	1.40	22 x 30
220	381EL221M250J012	0.10	0.670	0.335	1.00	1.40	25 x 25
270	381EL271M250H032	0.10	0.546	0.273	1.10	1.54	22 x 35
270	381EL271M250J022	0.10	0.546	0.273	1.10	1.54	25 x 30
270	381EL271M250K012	0.10	0.546	0.273	1.10	1.54	30 x 25
330	381EL331M250H042	0.10	0.447	0.223	1.20	1.68	22 x 40
330	381EL331M250J032	0.10	0.447	0.223	1.20	1.68	25 x 35
330	381EL331M250K012	0.10	0.447	0.223	1.20	1.68	30 x 25
390	381EL391M250H452	0.10	0.378	0.189	1.30	1.82	22 x 45
390	381EL391M250J032	0.10	0.378	0.189	1.30	1.82	25 x 35
390	381EL391M250K022	0.10	0.378	0.189	1.30	1.82	30 x 30
470	381EL471M250J452	0.10	0.314	0.157	1.40	1.96	25 x 45
470	381EL471M250K032	0.10	0.314	0.157	1.40	1.96	30 x 35
470	381EL471M250A022	0.10	0.314	0.157	1.40	1.96	35 x 30
560	381EL561M250J052	0.10	0.263	0.132	1.50	2.10	25 x 50
560	381EL561M250K032	0.10	0.263	0.132	1.50	2.10	30 x 35
560	381EL561M250A022	0.10	0.263	0.132	1.50	2.10	35 x 30
680	381EL681M250K452	0.10	0.217	0.119	1.70	2.38	30 x 45
680	381EL681M250A032	0.10	0.217	0.119	1.70	2.38	35 x 35
820	381EL821M250K052	0.10	0.180	0.099	2.00	2.80	30 x 50
820	381EL821M250A042	0.10	0.180	0.099	2.00	2.80	35 x 40
1000	381EL102M250A452	0.12	0.177	0.097	2.20	3.08	35 x 45
1200	381EL122M250A052	0.12	0.147	0.088	2.30	3.22	35 x 50
315 Vdc (365 Vdc Surge)							
82	381EL820M315H012	0.10	1.797	0.899	0.64	0.90	22 x 25
100	381EL101M315H022	0.10	1.474	0.737	0.69	0.97	22 x 30
120	381EL121M315H022	0.10	1.228	0.614	0.75	1.05	22 x 30
120	381EL121M315J012	0.10	1.228	0.614	0.75	1.05	25 x 25
150	381EL151M315H032	0.10	0.982	0.491	0.82	1.15	22 x 35
150	381EL151M315J022	0.10	0.982	0.491	0.82	1.15	25 x 30
150	381EL151M315K012	0.10	0.982	0.491	0.82	1.15	30 x 25
180	381EL181M315H042	0.10	0.819	0.409	0.90	1.26	22 x 40
180	381EL181M315J032	0.10	0.819	0.409	0.90	1.26	25 x 35
180	381EL181M315K012	0.10	0.819	0.409	0.90	1.26	30 x 25
220	381EL221M315H452	0.11	0.737	0.368	1.00	1.40	22 x 45
220	381EL221M315J042	0.11	0.737	0.368	1.00	1.40	25 x 40
220	381EL221M315K022	0.11	0.737	0.368	1.00	1.40	30 x 30
270	381EL271M315J452	0.11	0.600	0.300	1.10	1.54	25 x 45
270	381EL271M315K032	0.11	0.600	0.300	1.10	1.54	30 x 35
270	381EL271M315A022	0.11	0.600	0.300	1.10	1.54	35 x 30
330	381EL331M315J052	0.11	0.491	0.246	1.20	1.68	25 x 50
330	381EL331M315K042	0.11	0.491	0.246	1.20	1.68	30 x 40
330	381EL331M315A022	0.11	0.491	0.246	1.20	1.68	35 x 30
390	381EL391M315K452	0.12	0.453	0.227	1.30	1.82	30 x 45
390	381EL391M315A032	0.12	0.453	0.227	1.30	1.82	35 x 35
470	381EL471M315K052	0.12	0.376	0.188	1.40	1.96	30 x 50
470	381EL471M315A042	0.12	0.376	0.188	1.40	1.96	35 x 40
560	381EL561M315A452	0.12	0.316	0.158	1.50	2.10	35 x 45
680	381EL681M315A052	0.12	0.260	0.143	1.70	2.38	35 x 50



# Type 381EL, 105 °C Ultra-Long Life Snap-In, Aluminum

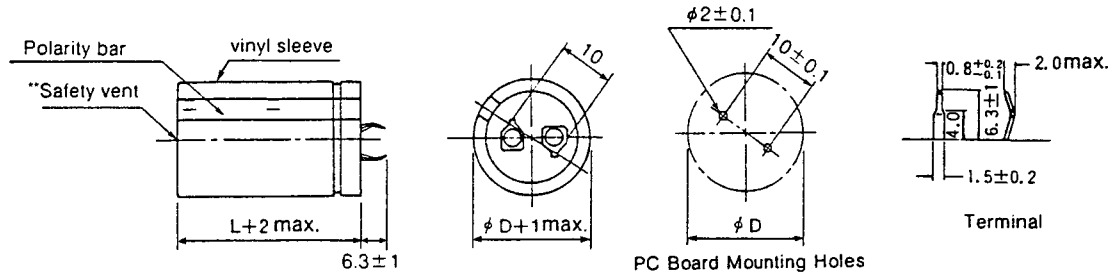
## Ratings

Cap. µF	Catalog Part Number	DF Max 120 Hz	ESR Max 25 °C		Ripple Amps Max 105 °C		Nominal Case Size D x L (mm)
			120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
350 Vdc (400 Vdc Surge)							
82	381EL820M350H012	0.10	1.797	0.899	0.64	0.90	22 x 25
100	381EL101M350H022	0.10	1.474	0.737	0.69	0.97	22 x 30
100	381EL101M350J012	0.10	1.474	0.737	0.69	0.97	25 x 25
120	381EL121M350H032	0.10	1.228	0.614	0.75	1.05	22 x 35
120	381EL121M350J022	0.10	1.228	0.614	0.75	1.05	25 x 30
150	381EL151M350H042	0.10	0.982	0.491	0.82	1.15	22 x 40
150	381EL151M350J022	0.10	0.982	0.491	0.82	1.15	25 x 30
150	381EL151M350K012	0.10	0.982	0.491	0.82	1.15	30 x 25
180	381EL181M350H452	0.10	0.819	0.409	0.90	1.26	22 x 45
180	381EL181M350J032	0.10	0.819	0.409	0.90	1.26	25 x 35
180	381EL181M350K022	0.10	0.819	0.409	0.90	1.26	30 x 30
220	381EL221M350H052	0.11	0.737	0.368	1.00	1.40	22 x 50
220	381EL221M350J042	0.11	0.737	0.368	1.00	1.40	25 x 40
220	381EL221M350K022	0.11	0.737	0.368	1.00	1.40	30 x 30
270	381EL271M350J052	0.11	0.600	0.300	1.10	1.54	25 x 50
270	381EL271M350K032	0.11	0.600	0.300	1.10	1.54	30 x 35
270	381EL271M350A022	0.11	0.600	0.300	1.10	1.54	35 x 30
330	381EL331M350K452	0.11	0.491	0.246	1.20	1.68	30 x 45
330	381EL331M350A032	0.11	0.491	0.246	1.20	1.68	35 x 35
390	381EL391M350K052	0.12	0.453	0.227	1.30	1.82	30 x 50
390	381EL391M350A042	0.12	0.453	0.227	1.30	1.82	35 x 40
470	381EL471M350A042	0.12	0.376	0.188	1.40	1.96	35 x 40
560	381EL561M350A052	0.12	0.316	0.158	1.50	2.10	35 x 50
400 Vdc (450 Vdc Surge)							
56	381EL560M400H012	0.10	2.631	0.921	0.51	0.71	22 x 25
68	381EL680M400H022	0.10	2.167	0.758	0.56	0.78	22 x 30
68	381EL680M400J012	0.10	2.167	0.758	0.56	0.78	25 x 25
82	381EL820M400H032	0.10	1.797	0.629	0.64	0.90	22 x 35
82	381EL820M400J012	0.10	1.797	0.629	0.64	0.90	25 x 25
100	381EL101M400H032	0.10	1.474	0.516	0.69	0.97	22 x 35
100	381EL101M400J022	0.10	1.474	0.516	0.69	0.97	25 x 30
120	381EL121M400H042	0.10	1.228	0.430	0.75	1.05	22 x 40
120	381EL121M400J032	0.10	1.228	0.430	0.75	1.05	25 x 35
120	381EL121M400K012	0.10	1.228	0.430	0.75	1.05	30 x 25
150	381EL151M400H052	0.10	0.982	0.344	0.82	1.15	22 x 50
150	381EL151M400J042	0.10	0.982	0.344	0.82	1.15	25 x 40
150	381EL151M400K022	0.10	0.982	0.344	0.82	1.15	30 x 30

Cap. µF	Catalog Part Number	DF Max 120 Hz	ESR Max 25 °C		Ripple Amps Max 105 °C		Nominal Case Size D x L (mm)
			120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
400 Vdc (450 Vdc Surge) (cont'd)							
180	381EL181M400J452	0.10	0.819	0.287	0.90	1.26	25 x 45
180	381EL181M400K032	0.10	0.819	0.287	0.90	1.26	30 x 35
180	381EL181M400A022	0.10	0.819	0.287	0.90	1.26	35 x 25
220	381EL221M400J052	0.10	0.670	0.234	1.00	1.40	25 x 50
220	381EL221M400K042	0.10	0.670	0.234	1.00	1.40	30 x 40
220	381EL221M400A022	0.10	0.670	0.234	1.00	1.40	35 x 30
270	381EL271M400K452	0.10	0.546	0.191	1.10	1.54	30 x 45
270	381EL271M400A032	0.10	0.546	0.191	1.10	1.54	35 x 35
330	381EL331M400K052	0.10	0.447	0.179	1.20	1.68	30 x 50
330	381EL331M400A042	0.10	0.447	0.179	1.20	1.68	35 x 40
390	381EL391M400A452	0.10	0.378	0.151	1.30	1.82	35 x 45
470	381EL471M400A052	0.10	0.314	0.125	1.40	1.96	35 x 50
450 Vdc (500 Vdc Surge)							
39	381EL390M450H012	0.10	3.779	1.322	0.37	0.52	22 x 25
47	381EL470M450H022	0.10	3.135	1.097	0.40	0.56	22 x 30
56	381EL560M450H032	0.10	2.631	0.921	0.47	0.66	22 x 35
56	381EL560M450J012	0.10	2.631	0.921	0.47	0.66	25 x 25
68	381EL680M450H042	0.10	2.167	0.758	0.53	0.74	22 x 40
68	381EL680M450J022	0.10	2.167	0.758	0.53	0.74	25 x 30
82	381EL820M450H452	0.10	1.797	0.629	0.56	0.78	22 x 45
82	381EL820M450J032	0.10	1.797	0.629	0.56	0.78	25 x 35
82	381EL820M450K012	0.10	1.797	0.629	0.56	0.78	30 x 25
100	381EL101M450H052	0.10	1.474	0.516	0.64	0.90	22 x 50
100	381EL101M450J042	0.10	1.474	0.516	0.64	0.90	25 x 40
100	381EL101M450K022	0.10	1.474	0.516	0.64	0.90	30 x 30
120	381EL121M450J452	0.10	1.228	0.430	0.72	1.01	25 x 45
120	381EL121M450K022	0.10	1.228	0.430	0.72	1.01	30 x 30
150	381EL151M450J052	0.10	0.982	0.344	0.79	1.11	25 x 50
150	381EL151M450K042	0.10	0.982	0.344	0.79	1.11	30 x 40
150	381EL151M450A022	0.10	0.982	0.344	0.79	1.11	35 x 30
180	381EL181M450K452	0.10	0.819	0.287	0.87	1.22	30 x 45
180	381EL181M450A032	0.10	0.819	0.287	0.87	1.22	35 x 35
220	381EL221M450K052	0.10	0.670	0.234	1.00	1.40	30 x 50
220	381EL221M450A042	0.10	0.670	0.234	1.00	1.40	35 x 40
270	381EL271M450A452	0.10	0.546	0.191	1.19	1.67	35 x 45
330	381EL331M450A052	0.10	0.447	0.156	1.38	1.93	35 x 50

Aluminum  
Snap-In  
Capacitors

## Outline Drawing



## Part Numbering System

381EL	821	M	200	K04	2
Type	Capacitance 390 = 39 µF 122 = 1200 µF	Tolerance M = ±20%	Rated Voltage Vdc	Case Code	Insulation 2 = PVC

# Type 381EL, 105 °C Ultra-Long Life Snap-In, Aluminum

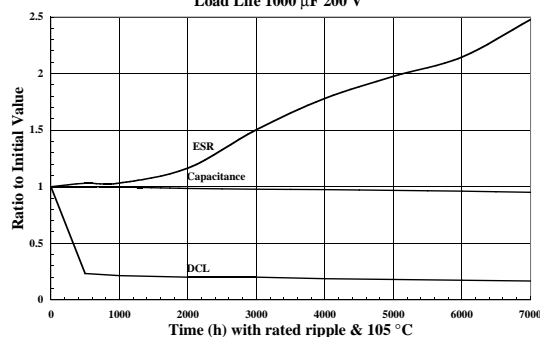
## Insulated Case Dimensions

Case Code	DIAMETER "D"		LENGTH "L"		Typical Weight (grams)
	mm	inches	mm	inches	
H01	22	0.87	25	0.98	16
H02	22	0.87	30	1.18	19
H03	22	0.87	35	1.38	22
H04	22	0.87	40	1.57	24
H45	22	0.87	45	1.77	28
H05	22	0.87	50	1.97	31
J01	25	0.98	25	0.98	20
J02	25	0.98	30	1.18	24
J03	25	0.98	35	1.38	27
J04	25	0.98	40	1.57	31
J45	25	0.98	45	1.77	35
J05	25	0.98	50	1.97	38

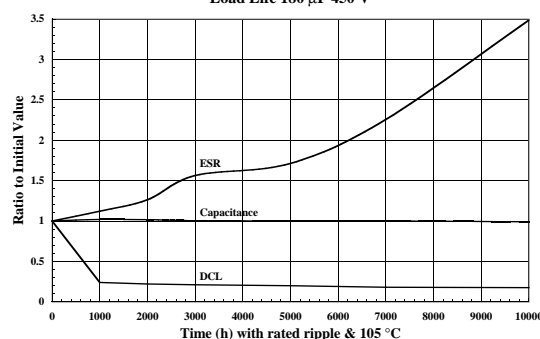
Case Code	DIAMETER "D"		LENGTH "L"		Typical Weight (grams)
	mm	inches	mm	inches	
K01	30	1.18	25	0.98	30
K02	30	1.18	30	1.18	35
K03	30	1.18	35	1.38	40
K04	30	1.18	40	1.57	44
K45	30	1.18	45	1.77	49
K05	30	1.18	50	1.97	53
A01	35	1.38	25	0.98	42
A02	35	1.38	30	1.18	48
A03	35	1.38	35	1.38	54
A04	35	1.38	40	1.57	60
A45	35	1.38	45	1.77	67
A05	35	1.38	50	1.97	74

## Typical Performance Curves

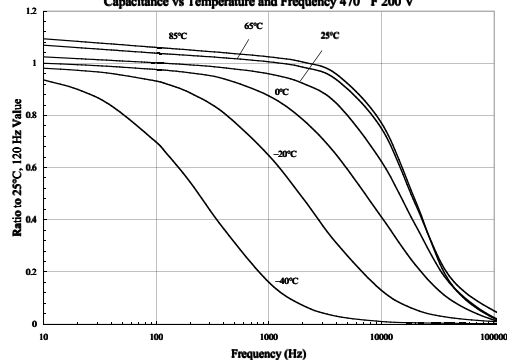
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Capacitance, DF, Leakage Current  
Load Life 1000  $\mu$ F 200 V



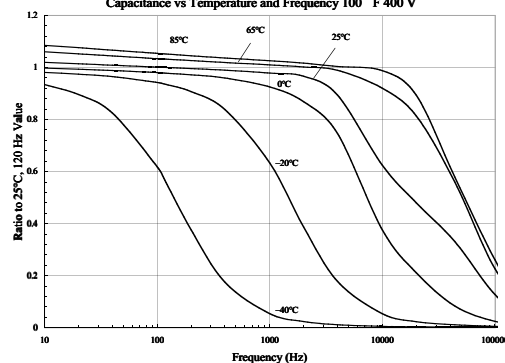
Life Test Data 180  $\mu$ F 450 V  
Capacitance, DF, Leakage Current  
Load Life 180  $\mu$ F 450 V



Capacitance vs Temperature and Frequency 470 F 200 V



Capacitance vs Temperature and Frequency 100 F 400 V



Type 381EL Operating Life in Kilohours vs Ripple Current

