

# 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

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

## Specifications

- Operating Temperature:** -40°C to + 105°C <250Vdc  
-25°C to + 105°C >350Vdc
- Rated Voltage:** 10 to 450 Vdc
- Capacitance:** 100 µF to 3300 µF ± 20%
- Leakage Current:**  $\leq 3 \sqrt{CV}$  µA, 4 mA max, 5 minutes
- Ripple Current Multipliers:**

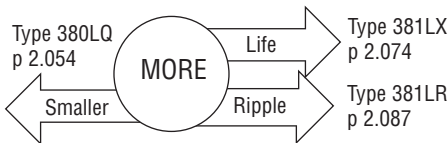
### Ambient Temperature

| 45 °C | 60 °C | 70 °C | 85 °C | 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        |

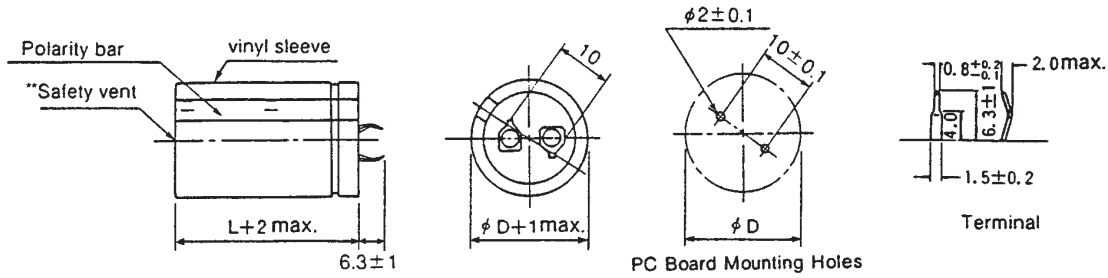
- Load Life:** 2000 h at full load at 105 °C  
 $\Delta$  Capacitance ±10%  
 ESR 125% of limit  
 DCL 100% of limit
- EIA Ripple Life:** 8000 h at 85 °C, full load per EIA IS-749  
 $\Delta$  Capacitance ±10%  
 ESR 200% of limit  
 DCL 100% of limit
- Shelf Life:** 1000 h at 105 °C,  $\Delta$  capacitance ± 10%, ESR 200% of limit, DCL 100% of limit
- Vibration:** 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane



Aluminum Snap-In Capacitors

# 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 μF  
332 = 3300 μF

**M**  
Tolerance  
M = ±20%

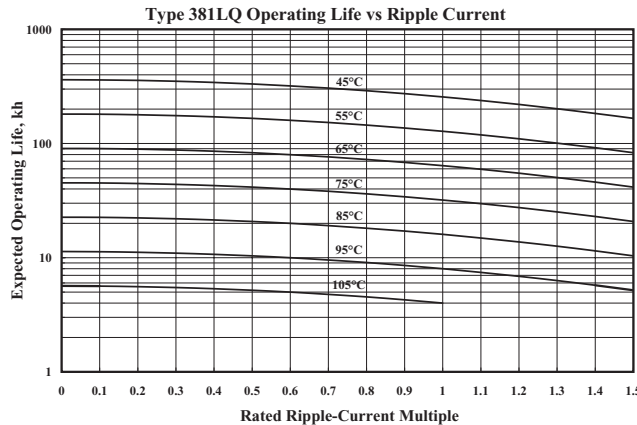
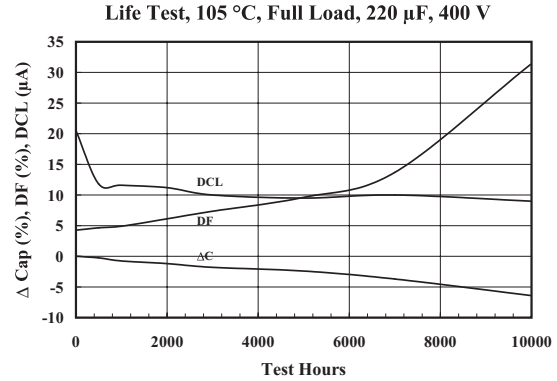
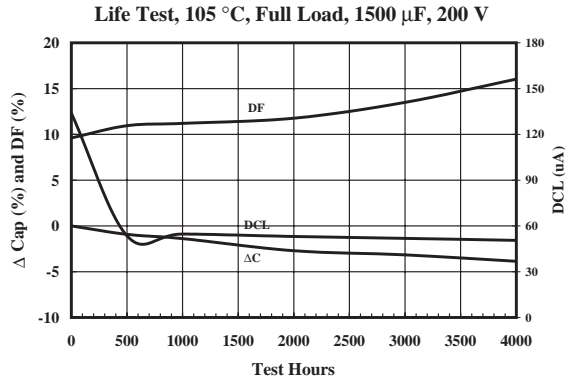
**160**  
Rated Voltage  
160 = 160 V  
450 = 450 V

**H01**  
Case Code

**2**  
Insulation  
2 = PVC

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

## Typical Performance Curves



## Ratings

\*\* For 10 Vdc to 100 Vdc please see the Ratings Insert following page 2.073

| 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) |                       |
| <b>160 Vdc (200 Vdc Surge)</b> |                     |                 |            |                     |            |                       |
| 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                           | 381LQ122M160K022    | 0.166           | 0.075      | 2.30                | 3.22       | 30 x 30               |
| 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               |
| <b>180 Vdc (225 Vdc Surge)</b> |                     |                 |            |                     |            |                       |
| 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. (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) |                       |
| 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               |

Aluminum Snap-In Capacitors

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

| Cap.<br>(µF)                   | Catalog<br>Part Number | ESR Max<br>@ 25 °C |               | Ripple Max<br>@ 105 °C |               | Nominal<br>Size<br>DxL<br>(mm) |
|--------------------------------|------------------------|--------------------|---------------|------------------------|---------------|--------------------------------|
|                                |                        | 120 Hz<br>(Ω)      | 20 kHz<br>(Ω) | 120 Hz<br>(A)          | 20 kHz<br>(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                        |
| <b>250 Vdc (300 Vdc Surge)</b> |                        |                    |               |                        |               |                                |
| 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                        |
| <b>315 Vdc (365 Vdc Surge)</b> |                        |                    |               |                        |               |                                |
| 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                        |
| <b>350 Vdc (400 Vdc Surge)</b> |                        |                    |               |                        |               |                                |
| 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.<br>(µF)                   | Catalog<br>Part Number | ESR Max<br>@ 25 °C |               | Ripple Max<br>@ 105 °C |               | Nominal<br>Size<br>DxL<br>(mm) |
|--------------------------------|------------------------|--------------------|---------------|------------------------|---------------|--------------------------------|
|                                |                        | 120 Hz<br>(Ω)      | 20 kHz<br>(Ω) | 120 Hz<br>(A)          | 20 kHz<br>(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                        |
| <b>400 Vdc (450 Vdc Surge)</b> |                        |                    |               |                        |               |                                |
| 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                        |
| <b>450 Vdc (500 Vdc Surge)</b> |                        |                    |               |                        |               |                                |
| 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                        |

Aluminum Snap-In Capacitors

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

| Cap.<br>(µF)                 | Catalog<br>Part Number | ESR Max<br>@ 25 °C |               | Ripple Amps<br>@ 105 °C |               | Nominal<br>Size<br>DxL<br>(mm) |
|------------------------------|------------------------|--------------------|---------------|-------------------------|---------------|--------------------------------|
|                              |                        | 120 Hz<br>(Ω)      | 20 kHz<br>(Ω) | 120 Hz<br>(A)           | 20 kHz<br>(A) |                                |
| <b>10 Vdc (13 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 12000                        | 381LQ123M010H012       | 0.076              | 0.065         | 2.20                    | 2.53          | 22X25                          |
| 18000                        | 381LQ183M010H022       | 0.051              | 0.043         | 2.40                    | 2.76          | 22X30                          |
| 18000                        | 381LQ183M010H012       | 0.051              | 0.043         | 2.40                    | 2.76          | 25X25                          |
| 22000                        | 381LQ223M010H032       | 0.041              | 0.035         | 2.60                    | 2.99          | 22X35                          |
| 22000                        | 381LQ223M010J022       | 0.041              | 0.035         | 2.60                    | 2.99          | 25X30                          |
| 27000                        | 381LQ273M010H042       | 0.034              | 0.029         | 3.10                    | 3.57          | 22X40                          |
| 27000                        | 381LQ273M010J032       | 0.034              | 0.029         | 3.10                    | 3.57          | 25X35                          |
| 27000                        | 381LQ273M010K012       | 0.034              | 0.029         | 3.10                    | 3.57          | 30X25                          |
| 33000                        | 381LQ333M010H452       | 0.028              | 0.023         | 3.40                    | 3.91          | 22X45                          |
| 33000                        | 381LQ333M010J042       | 0.028              | 0.023         | 3.40                    | 3.91          | 25X40                          |
| 39000                        | 381LQ393M010J452       | 0.026              | 0.022         | 3.70                    | 4.26          | 25X45                          |
| 39000                        | 381LQ393M010K022       | 0.026              | 0.023         | 3.70                    | 4.26          | 30X30                          |
| 39000                        | 381LQ393M010A012       | 0.026              | 0.022         | 3.70                    | 4.26          | 35X25                          |
| 47000                        | 381LQ473M010J052       | 0.024              | 0.021         | 4.20                    | 4.83          | 25X50                          |
| 47000                        | 381LQ473M010K032       | 0.024              | 0.022         | 4.20                    | 4.83          | 30X35                          |
| 47000                        | 381LQ473M010A022       | 0.024              | 0.021         | 4.20                    | 4.83          | 35X30                          |
| 56000                        | 381LQ563M010K042       | 0.023              | 0.021         | 5.00                    | 5.75          | 30X40                          |
| 56000                        | 381LQ563M010A032       | 0.023              | 0.020         | 5.00                    | 5.75          | 35X35                          |
| 68000                        | 381LQ683M010K452       | 0.022              | 0.020         | 5.40                    | 6.21          | 30X45                          |
| 68000                        | 381LQ683M010A042       | 0.022              | 0.019         | 5.40                    | 6.21          | 35X40                          |
| 82000                        | 381LQ823M010A452       | 0.021              | 0.019         | 6.10                    | 7.02          | 35X45                          |
| 100000                       | 381LQ104M010A052       | 0.020              | 0.019         | 6.90                    | 7.94          | 35X50                          |
| <b>16 Vdc (20 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 10000                        | 381LQ103M016H012       | 0.075              | 0.063         | 2.60                    | 2.99          | 22X25                          |
| 12000                        | 381LQ123M016H022       | 0.062              | 0.053         | 2.90                    | 3.34          | 22X30                          |
| 12000                        | 381LQ123M016J012       | 0.062              | 0.053         | 2.90                    | 3.34          | 25X25                          |
| 15000                        | 381LQ153M016H032       | 0.050              | 0.042         | 3.20                    | 3.68          | 22X35                          |
| 18000                        | 381LQ183M016H042       | 0.041              | 0.035         | 3.50                    | 4.03          | 22X40                          |
| 18000                        | 381LQ183M016J022       | 0.041              | 0.035         | 3.50                    | 4.03          | 25X30                          |
| 22000                        | 381LQ223M016H452       | 0.034              | 0.029         | 3.80                    | 4.37          | 22X45                          |
| 22000                        | 381LQ223M016J032       | 0.034              | 0.029         | 3.80                    | 4.37          | 25X35                          |
| 22000                        | 381LQ223M016H012       | 0.034              | 0.029         | 3.80                    | 4.37          | 30X25                          |
| 27000                        | 381LQ273M016H052       | 0.028              | 0.023         | 4.20                    | 4.83          | 22X50                          |
| 27000                        | 381LQ273M016J042       | 0.028              | 0.023         | 4.20                    | 4.83          | 25X40                          |
| 27000                        | 381LQ273M016K022       | 0.028              | 0.023         | 4.20                    | 4.83          | 30X30                          |
| 27000                        | 381LQ273M016A012       | 0.028              | 0.023         | 4.20                    | 4.83          | 35X25                          |
| 33000                        | 381LQ333M016J452       | 0.023              | 0.019         | 4.70                    | 5.41          | 25X45                          |
| 33000                        | 381LQ333M016K032       | 0.023              | 0.019         | 4.70                    | 5.41          | 30X35                          |
| 33000                        | 381LQ333M016A022       | 0.023              | 0.020         | 4.70                    | 5.41          | 35X30                          |
| 39000                        | 381LQ393M016K042       | 0.022              | 0.018         | 5.10                    | 5.87          | 30X40                          |
| 39000                        | 381LQ393M016A032       | 0.022              | 0.020         | 5.10                    | 5.87          | 35X35                          |
| 47000                        | 381LQ473M016K452       | 0.016              | 0.014         | 5.50                    | 6.33          | 30X45                          |
| 47000                        | 381LQ473M016A042       | 0.021              | 0.019         | 5.50                    | 6.33          | 35X40                          |
| 56000                        | 381LQ563M016K052       | 0.020              | 0.018         | 6.00                    | 6.90          | 30X50                          |
| 56000                        | 381LQ563M016A452       | 0.020              | 0.018         | 6.00                    | 6.90          | 35X45                          |
| <b>25 Vdc (32 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 6800                         | 381LQ682M025H012       | 0.085              | 0.064         | 2.40                    | 2.76          | 22X25                          |
| 8200                         | 381LQ822M025H022       | 0.071              | 0.053         | 2.70                    | 3.11          | 22X30                          |
| 8200                         | 381LQ822M025J012       | 0.071              | 0.053         | 2.70                    | 3.11          | 25X25                          |
| 10000                        | 381LQ103M025H032       | 0.058              | 0.044         | 3.00                    | 3.45          | 22X35                          |

| Cap.<br>(µF)                 | Catalog<br>Part Number | ESR Max<br>@ 25 °C |               | Ripple Amps<br>@ 105 °C |               | Nominal<br>Size<br>DxL<br>(mm) |
|------------------------------|------------------------|--------------------|---------------|-------------------------|---------------|--------------------------------|
|                              |                        | 120 Hz<br>(Ω)      | 20 kHz<br>(Ω) | 120 Hz<br>(A)           | 20 kHz<br>(A) |                                |
| 12000                        | 381LQ123M025H042       | 0.048              | 0.036         | 3.20                    | 3.68          | 22X40                          |
| 12000                        | 381LQ123M025J022       | 0.048              | 0.036         | 3.20                    | 3.68          | 25X30                          |
| 15000                        | 381LQ153M025H452       | 0.039              | 0.029         | 3.60                    | 4.14          | 22X45                          |
| 15000                        | 381LQ153M025J032       | 0.039              | 0.029         | 3.60                    | 4.14          | 25X35                          |
| 15000                        | 381LQ153M025K012       | 0.039              | 0.029         | 3.60                    | 4.14          | 30X25                          |
| 18000                        | 381LQ183M025H052       | 0.032              | 0.024         | 3.90                    | 4.49          | 22X50                          |
| 18000                        | 381LQ183M025J042       | 0.032              | 0.024         | 3.90                    | 4.49          | 25X40                          |
| 18000                        | 381LQ183M025K022       | 0.032              | 0.024         | 3.90                    | 4.49          | 30X30                          |
| 18000                        | 381LQ183M025A012       | 0.032              | 0.024         | 3.90                    | 4.49          | 35X25                          |
| 22000                        | 381LQ223M025J452       | 0.026              | 0.020         | 4.30                    | 4.95          | 25X45                          |
| 22000                        | 381LQ223M025K032       | 0.026              | 0.020         | 4.30                    | 4.95          | 30X35                          |
| 22000                        | 381LQ223M025A022       | 0.026              | 0.020         | 4.30                    | 4.95          | 35X30                          |
| 27000                        | 381LQ273M025K042       | 0.021              | 0.016         | 4.80                    | 5.52          | 30X40                          |
| 27000                        | 381LQ273M025A032       | 0.021              | 0.016         | 4.80                    | 5.52          | 35X35                          |
| 33000                        | 381LQ333M025K452       | 0.018              | 0.013         | 5.50                    | 6.33          | 30X45                          |
| 33000                        | 381LQ333M025A042       | 0.018              | 0.014         | 5.50                    | 6.33          | 35X40                          |
| 39000                        | 381LQ393M025K052       | 0.017              | 0.013         | 5.80                    | 6.67          | 30X50                          |
| 39000                        | 381LQ393M025A452       | 0.017              | 0.014         | 5.80                    | 6.67          | 35X45                          |
| 47000                        | 381LQ473M025A052       | 0.017              | 0.014         | 6.30                    | 7.25          | 35X50                          |
| <b>35 Vdc (44 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 4700                         | 381LQ472M035H012       | 0.106              | 0.079         | 2.20                    | 2.53          | 22X25                          |
| 5600                         | 381LQ562M035H022       | 0.089              | 0.067         | 2.40                    | 2.76          | 22X30                          |
| 5600                         | 381LQ562M035J012       | 0.089              | 0.067         | 2.40                    | 2.76          | 25X25                          |
| 6800                         | 381LQ682M035H032       | 0.073              | 0.055         | 2.60                    | 2.99          | 22X35                          |
| 8200                         | 381LQ822M035H042       | 0.061              | 0.045         | 2.90                    | 3.34          | 22X40                          |
| 8200                         | 381LQ822M035J022       | 0.061              | 0.045         | 2.90                    | 3.34          | 25X30                          |
| 10000                        | 381LQ103M035H452       | 0.050              | 0.037         | 3.20                    | 3.68          | 22X45                          |
| 10000                        | 381LQ103M035J032       | 0.050              | 0.037         | 3.20                    | 3.68          | 25X35                          |
| 10000                        | 381LQ103M035K012       | 0.050              | 0.037         | 3.20                    | 3.68          | 30X25                          |
| 12000                        | 381LQ123M035J042       | 0.041              | 0.031         | 3.50                    | 4.03          | 25X40                          |
| 12000                        | 381LQ123M035K022       | 0.041              | 0.031         | 3.50                    | 4.03          | 30X30                          |
| 12000                        | 381LQ123M035A012       | 0.041              | 0.031         | 3.50                    | 4.03          | 35X25                          |
| 15000                        | 381LQ153M035J452       | 0.033              | 0.025         | 3.90                    | 4.49          | 25X45                          |
| 15000                        | 381LQ153M035K032       | 0.033              | 0.025         | 3.90                    | 4.49          | 30X35                          |
| 15000                        | 381LQ153M035A032       | 0.033              | 0.025         | 3.90                    | 4.49          | 35X30                          |
| 18000                        | 381LQ183M035K042       | 0.028              | 0.021         | 4.30                    | 4.95          | 30X40                          |
| 18000                        | 381LQ183M035A032       | 0.028              | 0.021         | 4.30                    | 4.95          | 35X35                          |
| 22000                        | 381LQ223M035K452       | 0.023              | 0.017         | 5.00                    | 5.75          | 30X45                          |
| 22000                        | 381LQ223M035A042       | 0.023              | 0.017         | 5.00                    | 5.75          | 35X40                          |
| 27000                        | 381LQ273M035K052       | 0.018              | 0.014         | 5.30                    | 6.10          | 30X50                          |
| 27000                        | 381LQ273M035A452       | 0.018              | 0.014         | 5.30                    | 6.10          | 35X45                          |
| 33000                        | 381LQ333M035A052       | 0.015              | 0.012         | 5.90                    | 6.79          | 35X50                          |
| <b>50 Vdc (63 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 2700                         | 381LQ272M050H012       | 0.154              | 0.115         | 1.80                    | 2.07          | 22X25                          |
| 3300                         | 381LQ332M050H022       | 0.126              | 0.094         | 2.00                    | 2.30          | 22X30                          |
| 3900                         | 381LQ392M050H032       | 0.106              | 0.080         | 2.20                    | 2.53          | 22X35                          |
| 3900                         | 381LQ392M050J012       | 0.106              | 0.080         | 2.20                    | 2.53          | 25X25                          |
| 4700                         | 381LQ472M050H042       | 0.088              | 0.066         | 2.50                    | 2.88          | 22X40                          |
| 4700                         | 381LQ472M050J022       | 0.088              | 0.066         | 2.50                    | 2.88          | 25X30                          |
| 5600                         | 381LQ562M050H452       | 0.074              | 0.056         | 2.80                    | 3.22          | 22X45                          |
| 5600                         | 381LQ562M050J032       | 0.074              | 0.056         | 2.80                    | 3.22          | 25X35                          |

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

| Cap.<br>(µF)                  | Catalog<br>Part Number | ESR Max<br>@ 25 °C |               | Ripple Amps<br>@ 105 °C |               | Nominal<br>Size<br>DxL<br>(mm) |
|-------------------------------|------------------------|--------------------|---------------|-------------------------|---------------|--------------------------------|
|                               |                        | 120 Hz<br>(Ω)      | 20 kHz<br>(Ω) | 120 Hz<br>(A)           | 20 kHz<br>(A) |                                |
| 5600                          | 381LQ562M050K012       | 0.074              | 0.056         | 2.80                    | 3.22          | 30X25                          |
| 6800                          | 381LQ682M050H052       | 0.061              | 0.046         | 3.30                    | 3.80          | 22X50                          |
| 6800                          | 381LQ682M050J042       | 0.061              | 0.046         | 3.30                    | 3.80          | 25X40                          |
| 6800                          | 381LQ682M050K022       | 0.061              | 0.046         | 3.30                    | 3.80          | 30X30                          |
| 6800                          | 381LQ822M050012        | 0.061              | 0.046         | 3.30                    | 3.80          | 35X25                          |
| 8200                          | 381LQ682M050J452       | 0.051              | 0.038         | 3.60                    | 4.14          | 25X45                          |
| 8200                          | 381LQ822M050K032       | 0.051              | 0.038         | 3.60                    | 4.14          | 30X35                          |
| 10000                         | 381LQ103M050J052       | 0.041              | 0.031         | 4.00                    | 4.60          | 25X50                          |
| 10000                         | 381LQ103M050K042       | 0.041              | 0.031         | 4.00                    | 4.60          | 30X40                          |
| 10000                         | 381LQ103M050A022       | 0.041              | 0.031         | 4.00                    | 4.60          | 35X30                          |
| 12000                         | 381LQ123M050K452       | 0.035              | 0.026         | 4.50                    | 5.18          | 30X45                          |
| 12000                         | 381LQ123M050A032       | 0.035              | 0.028         | 4.50                    | 5.18          | 35X35                          |
| 15000                         | 381LQ153M050K052       | 0.028              | 0.021         | 4.80                    | 5.52          | 30X50                          |
| 15000                         | 381LQ153M050A042       | 0.028              | 0.022         | 4.80                    | 5.52          | 35X40                          |
| 18000                         | 381LQ183M050A452       | 0.023              | 0.018         | 5.60                    | 6.44          | 35X45                          |
| <b>63 Vdc (79 Vdc Surge)</b>  |                        |                    |               |                         |               |                                |
| 2200                          | 381LQ222M063H012       | 0.151              | 0.113         | 2.00                    | 2.30          | 22X25                          |
| 2700                          | 381LQ272M063H022       | 0.123              | 0.092         | 2.20                    | 2.53          | 22X30                          |
| 2700                          | 381LQ272M063J012       | 0.123              | 0.092         | 2.20                    | 2.53          | 25X25                          |
| 3300                          | 381LQ332M063H032       | 0.100              | 0.075         | 2.50                    | 2.88          | 22X35                          |
| 3900                          | 381LQ392M063H042       | 0.085              | 0.064         | 2.70                    | 3.11          | 22X40                          |
| 3900                          | 381LQ392M063J022       | 0.085              | 0.064         | 2.70                    | 3.11          | 25X30                          |
| 3900                          | 381LQ392M063K012       | 0.085              | 0.064         | 2.70                    | 3.11          | 30X25                          |
| 4700                          | 381LQ472M063H452       | 0.071              | 0.053         | 3.00                    | 3.45          | 22X45                          |
| 4700                          | 381LQ472M063J032       | 0.071              | 0.053         | 3.00                    | 3.45          | 25X35                          |
| 5600                          | 381LQ562M063H052       | 0.059              | 0.044         | 3.30                    | 3.80          | 22X50                          |
| 5600                          | 381LQ562M063J042       | 0.059              | 0.044         | 3.30                    | 3.80          | 25X40                          |
| 5600                          | 381LQ562M063K022       | 0.059              | 0.044         | 3.30                    | 3.80          | 30X30                          |
| 5600                          | 381LQ562M063A012       | 0.059              | 0.044         | 3.30                    | 3.80          | 35X25                          |
| 6800                          | 381LQ682M063J452       | 0.049              | 0.037         | 3.60                    | 4.14          | 25X45                          |
| 6800                          | 381LQ682M063K032       | 0.049              | 0.037         | 3.60                    | 4.14          | 30X35                          |
| 6800                          | 381LQ682M063A022       | 0.049              | 0.037         | 3.60                    | 4.14          | 35X30                          |
| 8200                          | 381LQ822M063K042       | 0.040              | 0.030         | 3.90                    | 4.49          | 30X40                          |
| 8200                          | 381LQ822M063A032       | 0.040              | 0.030         | 3.90                    | 4.49          | 35X35                          |
| 10000                         | 381LQ103M063K452       | 0.033              | 0.025         | 4.40                    | 5.06          | 30X45                          |
| 10000                         | 381LQ103M063A042       | 0.033              | 0.025         | 4.40                    | 5.06          | 35X40                          |
| 12000                         | 381LQ123M063K052       | 0.028              | 0.021         | 4.80                    | 5.52          | 30X50                          |
| 12000                         | 381LQ123M063A452       | 0.028              | 0.022         | 4.80                    | 5.52          | 35X45                          |
| 15000                         | 381LQ153M063A052       | 0.022              | 0.018         | 5.40                    | 6.21          | 35X50                          |
| <b>80 Vdc (100 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 1200                          | 381LQ122M080H012       | 0.235              | 0.176         | 1.50                    | 1.73          | 22X25                          |
| 1500                          | 381LQ152M080H022       | 0.188              | 0.141         | 1.70                    | 1.96          | 22X30                          |
| 1500                          | 381LQ152M080J012       | 0.188              | 0.141         | 1.70                    | 1.96          | 25X25                          |
| 1800                          | 381LQ182M080H032       | 0.157              | 0.117         | 1.80                    | 2.07          | 22X35                          |

| Cap.<br>(µF)                   | Catalog<br>Part Number | ESR Max<br>@ 25 °C |               | Ripple Amps<br>@ 105 °C |               | Nominal<br>Size<br>DxL<br>(mm) |
|--------------------------------|------------------------|--------------------|---------------|-------------------------|---------------|--------------------------------|
|                                |                        | 120 Hz<br>(Ω)      | 20 kHz<br>(Ω) | 120 Hz<br>(A)           | 20 kHz<br>(A) |                                |
| 2200                           | 381LQ222M080H042       | 0.128              | 0.096         | 2.10                    | 2.42          | 22X40                          |
| 2200                           | 381LQ222M080J022       | 0.128              | 0.096         | 2.10                    | 2.42          | 25X30                          |
| 2700                           | 381LQ272M080H452       | 0.104              | 0.078         | 2.40                    | 2.76          | 22X45                          |
| 2700                           | 381LQ272M080J032       | 0.104              | 0.078         | 2.40                    | 2.76          | 25X35                          |
| 2700                           | 381LQ272M080K012       | 0.104              | 0.078         | 2.40                    | 2.76          | 30X25                          |
| 3300                           | 381LQ332M080H052       | 0.085              | 0.064         | 2.60                    | 2.99          | 22X50                          |
| 3300                           | 381LQ332M080J042       | 0.085              | 0.064         | 2.60                    | 2.99          | 25X40                          |
| 3300                           | 381LQ332M080K022       | 0.085              | 0.064         | 2.60                    | 2.99          | 30X30                          |
| 3300                           | 381LQ332M080A012       | 0.085              | 0.064         | 2.60                    | 2.99          | 35X25                          |
| 3900                           | 381LQ392M080J452       | 0.072              | 0.054         | 3.00                    | 3.45          | 25X45                          |
| 3900                           | 381LQ392M080K032       | 0.072              | 0.054         | 3.00                    | 3.45          | 30X35                          |
| 4700                           | 381LQ472M080J052       | 0.060              | 0.045         | 3.30                    | 3.80          | 25X50                          |
| 4700                           | 381LQ472M080K042       | 0.060              | 0.045         | 3.30                    | 3.80          | 30X40                          |
| 4700                           | 381LQ472M080A022       | 0.060              | 0.045         | 3.30                    | 3.80          | 35X30                          |
| 5600                           | 381LQ562M080K452       | 0.050              | 0.038         | 3.70                    | 4.26          | 30X45                          |
| 5600                           | 381LQ562M080A032       | 0.050              | 0.038         | 3.70                    | 4.26          | 35X35                          |
| 6800                           | 381LQ682M080K052       | 0.041              | 0.031         | 3.90                    | 4.49          | 30X50                          |
| 6800                           | 381LQ682M080A042       | 0.041              | 0.032         | 3.90                    | 4.49          | 35X40                          |
| 8200                           | 381LQ822M080A452       | 0.034              | 0.027         | 4.50                    | 5.18          | 35X45                          |
| <b>100 Vdc (125 Vdc Surge)</b> |                        |                    |               |                         |               |                                |
| 820                            | 381LQ821M100H012       | 0.303              | 0.197         | 1.40                    | 1.61          | 22X25                          |
| 1200                           | 381LQ122M100H022       | 0.207              | 0.135         | 1.80                    | 2.07          | 22X30                          |
| 1200                           | 381LQ122M100J012       | 0.207              | 0.135         | 1.80                    | 2.07          | 25X25                          |
| 1500                           | 381LQ152M100H032       | 0.166              | 0.108         | 2.10                    | 2.42          | 22X35                          |
| 1500                           | 381LQ152M100J022       | 0.166              | 0.108         | 2.10                    | 2.42          | 25X30                          |
| 1800                           | 381LQ182M100H042       | 0.138              | 0.090         | 2.30                    | 2.65          | 22X40                          |
| 1800                           | 381LQ182M100J032       | 0.138              | 0.090         | 2.30                    | 2.65          | 25X35                          |
| 1800                           | 381LQ182M100K012       | 0.138              | 0.090         | 2.30                    | 2.65          | 30X25                          |
| 2200                           | 381LQ222M100H452       | 0.113              | 0.073         | 2.60                    | 2.99          | 22X45                          |
| 2200                           | 381LQ222M100J042       | 0.113              | 0.073         | 2.60                    | 2.99          | 25X40                          |
| 2200                           | 381LQ222M100K022       | 0.113              | 0.073         | 2.60                    | 2.99          | 30X30                          |
| 2200                           | 381LQ222M100A012       | 0.113              | 0.073         | 2.60                    | 2.99          | 35X25                          |
| 2700                           | 381LQ272M100J452       | 0.092              | 0.060         | 2.90                    | 3.34          | 25X45                          |
| 2700                           | 381LQ272M100K032       | 0.092              | 0.060         | 2.90                    | 3.34          | 30X35                          |
| 3300                           | 381LQ332M100J052       | 0.075              | 0.049         | 3.20                    | 3.68          | 25X50                          |
| 3300                           | 381LQ332M100K042       | 0.075              | 0.049         | 3.20                    | 3.68          | 30X40                          |
| 3300                           | 381LQ332M100A022       | 0.075              | 0.049         | 3.20                    | 3.68          | 35X30                          |
| 3900                           | 381LQ392M100K452       | 0.064              | 0.043         | 3.60                    | 4.14          | 30X45                          |
| 3900                           | 381LQ392M100A032       | 0.064              | 0.043         | 3.60                    | 4.14          | 35X35                          |
| 4700                           | 381LQ472M100K052       | 0.053              | 0.038         | 3.80                    | 4.37          | 30X50                          |
| 4700                           | 381LQ472M100A042       | 0.053              | 0.037         | 3.80                    | 4.37          | 35X40                          |
| 5600                           | 381LQ562M100A452       | 0.044              | 0.031         | 4.20                    | 4.83          | 35X45                          |
| 6800                           | 381LQ682M100A052       | 0.037              | 0.027         | 4.70                    | 5.41          | 35X50                          |