

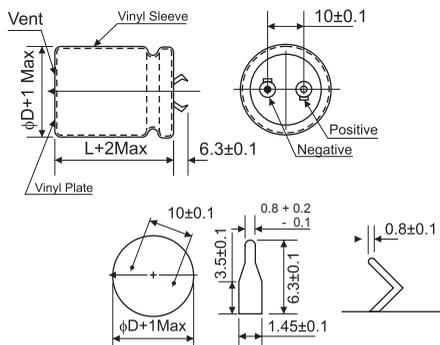
FEATURES

- Has a snap-in terminal which can solder to PCB directly and need not fixture to save processing time.
- Suitable for electronic equipment with medium-high voltage circuits. Printed circuit board terminal snap-in type and lug terminal type available.
- 3,000 Hour Life

SPECIFICATIONS

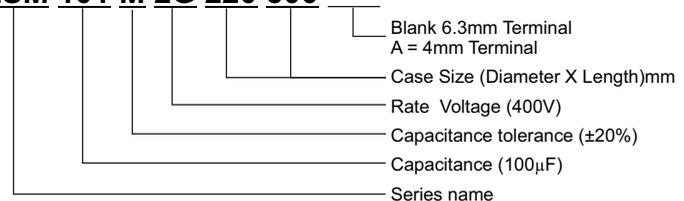
| Items | Performance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|-----------------------------------|------|-----------|------|------|-------|-------|-------|--------|------|------|------|---------------|---------------|-----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|-------------------------|------|------|------|------|------|------|-------|-------|-------|------|------|------|------|------|---|
| Operating Temperature Range | 16V ~ 100V | 160V ~ 500V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -40°C ~ +105°C | -25°C ~ +105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (at 120Hz, 20°C) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current (at 20°C) | I = 3 √CV or 1.5 mA whichever is smaller (after 5 minutes) Where, C= rated capacitance in μF. V= rated DC rated voltage in V. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor (Tanδ at 120Hz, 20°C) | <table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>16</th><th>25</th><th>35</th><th>50</th><th>63</th><th>80</th><th>100</th><th>160</th><th>200</th><th>250</th><th>350</th><th>400</th><th>420</th><th>450</th><th>500</th> </tr> </thead> <tbody> <tr> <td>Tanδ (max)</td> <td>0.50</td><td>0.45</td><td>0.40</td><td>0.35</td><td>0.30</td><td>0.25</td><td>0.20</td><td>0.10*</td><td>0.10*</td><td>0.10*</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.15</td> </tr> </tbody> </table> | | | | | | | | | | | | | | Rated Voltage | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | Tanδ (max) | 0.50 | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 | 0.20 | 0.10* | 0.10* | 0.10* | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | |
| | Rated Voltage | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tanδ (max) | 0.50 | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 | 0.20 | 0.10* | 0.10* | 0.10* | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *: 0.15 for D = 35mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio shall not exceed the values given in the table below. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Impedance Ratio | <table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>16</th><th>25</th><th>35</th><th>50</th><th>63</th><th>80</th><th>100</th><th>160</th><th>200</th><th>250</th><th>350</th><th>400</th><th>420</th><th>450</th><th>500</th> </tr> </thead> <tbody> <tr> <td>Z (-25°C)/ Z (+20°C)</td> <td>4</td><td>3</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>4</td><td>4</td><td>4</td><td>4</td><td>8</td><td>8</td><td>8</td><td>8</td> </tr> </tbody> </table> | | | | | | | | | | | | | | Rated Voltage | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | Z (-25°C)/ Z (+20°C) | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 |
| | | Rated Voltage | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z (-25°C)/ Z (+20°C) | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z (-40°C)/ Z (+20°C) | 15 | 10 | 8 | 6 | 6 | 6 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance | Test Time | | 3,000 hours | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Capacitance Change | | Within ±20% of initial value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Tan δ | | Less than 200% of specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Leakage Current | | Within specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ** The above specifications shall be satisfied when the capacitors are restored at 20°C after the rated voltage applied with rated ripple current for 3,000 hours at 105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life Test | Test Time | | 1,000 hours | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Capacitance Change | | Within ±20% of initial value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Tan δ | | Less than 150% of specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Leakage Current | | Within specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ** The above specifications shall be satisfied when the capacitors are restored at 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors before the measurements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ripple Current & Frequency Multipliers | Frequency (Hz) | | 50 / 60 | | 100 / 120 | | 300 | | 1k | | 10k up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Multiplier | | 0.8 | | 1.0 | | 1.1 | | 1.3 | | 1.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Failure percentage Failure rate | When the failure percentage / failure rate is required, please contact with us for further discussion. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SNAP-IN TERMINAL TYPE



PART NUMBER EXAMPLE

LSM 101 M 2G 220 300



DIMENSIONS & PERMISSABLE RIPPLE CURRENT

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 16 | 4,700 | 22 x 25 | 1.30 | 0.50 | 0.141 | 0.82 |
| | | 22 x 35 | 1.80 | 0.50 | 0.098 | 0.99 |
| | 6,800 | 25 x 30 | 1.80 | 0.50 | 0.098 | 0.99 |
| | | 22 x 45 | 2.34 | 0.50 | 0.066 | 1.20 |
| | | 25 x 35 | 2.25 | 0.50 | 0.066 | 1.20 |
| | 10,000 | 30 x 25 | 2.19 | 0.50 | 0.066 | 1.20 |
| | | 25 x 45 | 2.83 | 0.50 | 0.044 | 1.47 |
| | | 30 x 35 | 2.82 | 0.50 | 0.044 | 1.47 |
| | 15,000 | 35 x 30 | 2.82 | 0.50 | 0.440 | 1.47 |
| | | 30 x 45 | 3.13 | 0.50 | 0.030 | 1.50 |
| 35 x 35 | | 3.09 | 0.50 | 0.030 | 1.50 | |
| 25 | 3,300 | 22 x 25 | 1.25 | 0.45 | 0.181 | 0.86 |
| | | 22 x 30 | 1.61 | 0.45 | 0.127 | 1.03 |
| | 4,700 | 25 x 25 | 1.61 | 0.45 | 0.127 | 1.03 |
| | | 22 x 35 | 1.91 | 0.45 | 0.088 | 1.24 |
| | | 25 x 30 | 1.91 | 0.45 | 0.088 | 1.24 |
| | 6,800 | 30 x 25 | 1.91 | 0.45 | 0.088 | 1.24 |
| | | 22 x 45 | 2.51 | 0.45 | 0.060 | 1.50 |
| | | 25 x 40 | 2.42 | 0.45 | 0.060 | 1.50 |
| | 10,000 | 30 x 30 | 2.42 | 0.45 | 0.060 | 1.50 |
| | | 35 x 25 | 2.42 | 0.45 | 0.060 | 1.50 |
| | | 25 x 45 | 3.12 | 0.45 | 0.040 | 1.50 |
| | | 30 x 35 | 3.11 | 0.45 | 0.040 | 1.50 |
| | 15,000 | 35 x 30 | 3.11 | 0.45 | 0.040 | 1.50 |
| | | 30 x 45 | 3.85 | 0.45 | 0.027 | 1.50 |
| | | 35 x 40 | 3.85 | 0.45 | 0.027 | 1.50 |
| | 35 | 2,200 | 22 x 25 | 1.14 | 0.40 | 0.241 |
| 25 x 25 | | | 1.51 | 0.40 | 0.241 | 0.83 |
| 3,300 | | 22 x 30 | 1.51 | 0.40 | 0.161 | 1.02 |
| | | 25 x 30 | 1.92 | 0.40 | 0.161 | 1.02 |
| 4,700 | | 22 x 35 | 1.92 | 0.40 | 0.113 | 1.22 |
| | | 25 x 40 | 2.31 | 0.40 | 0.113 | 1.22 |
| | | 30 x 25 | 1.92 | 0.40 | 0.113 | 1.22 |
| 6,800 | | 22 x 45 | 2.31 | 0.40 | 0.078 | 1.46 |
| | | 25 x 45 | 2.87 | 0.40 | 0.078 | 1.46 |
| | | 30 x 30 | 2.33 | 0.40 | 0.078 | 1.46 |
| | | 35 x 25 | 2.33 | 0.40 | 0.078 | 1.46 |
| 10,000 | | 30 x 35 | 2.87 | 0.40 | 0.053 | 1.50 |
| | | 35 x 30 | 2.87 | 0.40 | 0.053 | 1.50 |
| 15,000 | | 30 x 45 | 3.66 | 0.40 | 0.035 | 1.50 |
| | | 35 x 40 | 3.66 | 0.40 | 0.035 | 1.50 |
| 22,000 | | 35 x 45 | 4.53 | 0.40 | 0.024 | 1.50 |
| 50 | 1,500 | 22 x 25 | 1.22 | 0.35 | 0.310 | 0.82 |
| | | 22 x 30 | 1.59 | 0.35 | 0.211 | 0.99 |
| | 2,200 | 25 x 25 | 1.59 | 0.35 | 0.211 | 0.99 |
| | | 22 x 35 | 1.93 | 0.35 | 0.141 | 1.22 |
| | 3,300 | 25 x 30 | 1.88 | 0.35 | 0.141 | 1.22 |
| | | 30 x 25 | 1.88 | 0.35 | 0.141 | 1.22 |

DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) | |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|------|
| 50 (continue) | 4,700 | 22 x 45 | 2.43 | 0.35 | 0.099 | 1.45 | |
| | | 25 x 35 | 2.34 | 0.35 | 0.099 | 1.45 | |
| | | 30 x 30 | 2.42 | 0.35 | 0.099 | 1.45 | |
| | | 35 x 25 | 2.42 | 0.35 | 0.099 | 1.45 | |
| | 6,800 | 25 x 45 | 3.10 | 0.35 | 0.068 | 1.50 | |
| | | 30 x 35 | 3.10 | 0.35 | 0.068 | 1.50 | |
| | | 35 x 30 | 3.10 | 0.35 | 0.068 | 1.50 | |
| | 10,000 | 30 x 45 | 4.18 | 0.35 | 0.046 | 1.50 | |
| 35 x 40 | | 4.20 | 0.35 | 0.046 | 1.50 | | |
| 63 | 1,000 | 20 x 20 | 0.90 | 0.30 | 0.398 | 0.75 | |
| | | 22 x 20 | 0.90 | 0.30 | 0.398 | 0.75 | |
| | 1,200 | 20 x 25 | 1.08 | 0.30 | 0.332 | 0.82 | |
| | | 22 x 20 | 1.05 | 0.30 | 0.332 | 0.82 | |
| | 1,500 | 20 x 30 | 1.31 | 0.30 | 0.265 | 0.92 | |
| | | 22 x 25 | 1.28 | 0.30 | 0.265 | 0.92 | |
| | | 25 x 20 | 1.27 | 0.30 | 0.265 | 0.92 | |
| | 2,200 | 20 x 35 | 1.70 | 0.30 | 0.181 | 1.12 | |
| | | 22 x 35 | 1.78 | 0.30 | 0.181 | 1.12 | |
| | | 25 x 25 | 1.60 | 0.30 | 0.181 | 1.12 | |
| | | 30 x 25 | 1.78 | 0.30 | 0.181 | 1.12 | |
| | 2,700 | 20 x 40 | 1.82 | 0.30 | 0.147 | 1.24 | |
| | | 22 x 35 | 1.81 | 0.30 | 0.147 | 1.24 | |
| | | 25 x 30 | 1.83 | 0.30 | 0.147 | 1.24 | |
| | | 30 x 25 | 1.89 | 0.30 | 0.147 | 1.24 | |
| | 3,300 | 20 x 45 | 2.00 | 0.30 | 0.121 | 1.37 | |
| | | 22 x 40 | 2.00 | 0.30 | 0.121 | 1.37 | |
| | | 25 x 35 | 2.03 | 0.30 | 0.121 | 1.37 | |
| | | 30 x 25 | 1.81 | 0.30 | 0.121 | 1.37 | |
| | | 35 x 25 | 2.03 | 0.30 | 0.121 | 1.37 | |
| | 3,900 | 20 x 50 | 2.16 | 0.30 | 0.102 | 1.49 | |
| | | 22 x 50 | 2.37 | 0.30 | 0.102 | 1.49 | |
| | | 25 x 40 | 2.22 | 0.30 | 0.102 | 1.49 | |
| | | 30 x 30 | 2.19 | 0.30 | 0.102 | 1.49 | |
| | | 35 x 25 | 2.24 | 0.30 | 0.102 | 1.49 | |
| | 4,700 | 25 x 45 | 2.56 | 0.30 | 0.085 | 1.50 | |
| | | 30 x 35 | 2.66 | 0.30 | 0.085 | 1.50 | |
| | | 35 x 25 | 2.46 | 0.30 | 0.085 | 1.50 | |
| | 5,600 | 25 x 50 | 2.93 | 0.30 | 0.071 | 1.50 | |
| | | 30 x 35 | 2.79 | 0.30 | 0.071 | 1.50 | |
| | | 35 x 30 | 2.88 | 0.30 | 0.071 | 1.50 | |
| | 6,800 | 30 x 40 | 3.25 | 0.30 | 0.059 | 1.50 | |
| | | 35 x 35 | 3.26 | 0.30 | 0.059 | 1.50 | |
| | | 35 x 40 | 3.49 | 0.30 | 0.059 | 1.50 | |
| | 8,200 | 35 x 40 | 3.52 | 0.30 | 0.049 | 1.50 | |
| | 80 | 1,000 | 22 x 25 | 1.05 | 0.25 | 0.332 | 0.85 |
| | | | 25 x 20 | 1.04 | 0.25 | 0.332 | 0.85 |
| | | 1,200 | 20 x 30 | 1.17 | 0.25 | 0.276 | 0.93 |
| | | | 22 x 30 | 1.24 | 0.25 | 0.276 | 0.93 |
| | | | 25 x 25 | 1.24 | 0.25 | 0.276 | 0.93 |

DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 80 (continue) | 1,500 | 20 x 40 | 1.49 | 0.25 | 0.221 | 1.04 |
| | | 22 x 35 | 1.54 | 0.25 | 0.221 | 1.04 |
| | | 25 x 30 | 1.54 | 0.25 | 0.221 | 1.04 |
| | | 30 x 25 | 1.61 | 0.25 | 0.221 | 1.04 |
| | 2,200 | 20 x 50 | 1.94 | 0.25 | 0.151 | 1.26 |
| | | 22 x 45 | 1.95 | 0.25 | 0.151 | 1.26 |
| | | 25 x 35 | 1.94 | 0.25 | 0.151 | 1.26 |
| | | 30 x 30 | 2.05 | 0.25 | 0.151 | 1.26 |
| | 3,300 | 35 x 25 | 2.10 | 0.25 | 0.151 | 1.26 |
| | | 25 x 50 | 2.25 | 0.25 | 0.101 | 1.50 |
| | | 30 x 35 | 2.24 | 0.25 | 0.101 | 1.50 |
| | 4,700 | 35 x 30 | 2.30 | 0.25 | 0.101 | 1.50 |
| 30 x 45 | | 2.84 | 0.25 | 0.071 | 1.50 | |
| 35 x 35 | | 2.80 | 0.25 | 0.071 | 1.50 | |
| 100 | 1,000 | 20 x 35 | 1.28 | 0.20 | 0.265 | 0.95 |
| | | 22 x 30 | 1.36 | 0.20 | 0.265 | 0.95 |
| | | 25 x 25 | 1.36 | 0.20 | 0.265 | 0.95 |
| | 1,200 | 20 x 40 | 1.49 | 0.20 | 0.221 | 1.04 |
| | | 22 x 35 | 1.48 | 0.20 | 0.221 | 1.04 |
| | | 25 x 30 | 1.49 | 0.20 | 0.221 | 1.04 |
| | 1,500 | 20 x 45 | 1.75 | 0.20 | 0.177 | 1.16 |
| | | 22 x 40 | 1.82 | 0.20 | 0.177 | 1.16 |
| | | 25 x 35 | 1.85 | 0.20 | 0.177 | 1.16 |
| | | 30 x 25 | 1.80 | 0.20 | 0.177 | 1.16 |
| | 2,200 | 25 x 45 | 2.50 | 0.20 | 0.121 | 1.41 |
| | | 30 x 35 | 2.50 | 0.20 | 0.121 | 1.41 |
| | | 35 x 30 | 2.50 | 0.20 | 0.121 | 1.41 |
| | 2,700 | 25 x 50 | 2.70 | 0.20 | 0.098 | 1.50 |
| | | 30 x 40 | 2.72 | 0.20 | 0.098 | 1.50 |
| | | 35 x 35 | 2.82 | 0.20 | 0.098 | 1.50 |
| | 3,300 | 30 x 45 | 3.11 | 0.20 | 0.080 | 1.50 |
| | | 35 x 35 | 3.07 | 0.20 | 0.080 | 1.50 |
| | 3,900 | 30 x 50 | 3.40 | 0.20 | 0.068 | 1.50 |
| | | 35 x 40 | 3.38 | 0.20 | 0.068 | 1.50 |
| 4,700 | 35 x 45 | 3.90 | 0.20 | 0.056 | 1.50 | |
| 160 | 180 | 20 x 20 | 0.61 | 0.10 | 0.737 | 0.51 |
| | 220 | 20 x 25 | 0.73 | 0.10 | 0.603 | 0.56 |
| | | 22 x 20 | 0.71 | 0.10 | 0.603 | 0.56 |
| | 270 | 20 x 25 | 0.81 | 0.10 | 0.491 | 0.62 |
| | | 25 x 20 | 0.85 | 0.10 | 0.491 | 0.62 |
| | 330 | 20 x 30 | 0.97 | 0.10 | 0.402 | 0.69 |
| | | 22 x 25 | 0.98 | 0.10 | 0.402 | 0.69 |
| | | 25 x 20 | 0.94 | 0.10 | 0.402 | 0.69 |
| | 390 | 20 x 30 | 1.06 | 0.10 | 0.340 | 0.75 |
| | | 22 x 25 | 1.03 | 0.10 | 0.340 | 0.75 |
| | | 25 x 25 | 1.09 | 0.10 | 0.340 | 0.75 |
| | 470 | 20 x 35 | 1.17 | 0.10 | 0.282 | 0.82 |
| 22 x 30 | | 1.21 | 0.10 | 0.282 | 0.82 | |
| 25 x 25 | | 1.19 | 0.10 | 0.282 | 0.82 | |

■ DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 160 (continue) | 560 | 20 x 40 | 1.35 | 0.10 | 0.237 | 0.90 |
| | | 22 x 35 | 1.40 | 0.10 | 0.237 | 0.90 |
| | | 25 x 30 | 1.40 | 0.10 | 0.237 | 0.90 |
| | | 30 x 25 | 1.40 | 0.10 | 0.237 | 0.90 |
| | 680 | 20 x 45 | 1.57 | 0.10 | 0.195 | 0.99 |
| | | 22 x 40 | 1.62 | 0.10 | 0.195 | 0.99 |
| | | 25 x 35 | 1.61 | 0.10 | 0.195 | 0.99 |
| | | 30 x 25 | 1.54 | 0.10 | 0.195 | 0.99 |
| | 820 | 22 x 45 | 1.86 | 0.10 | 0.162 | 1.09 |
| | | 25 x 40 | 1.86 | 0.10 | 0.162 | 1.09 |
| | | 30 x 30 | 1.79 | 0.10 | 0.162 | 1.09 |
| | | 35 x 25 | 1.79 | 0.15 | 0.243 | 1.09 |
| | 1,000 | 22 x 50 | 2.18 | 0.10 | 0.133 | 1.20 |
| | | 25 x 45 | 2.15 | 0.10 | 0.133 | 1.20 |
| | | 30 x 35 | 2.09 | 0.10 | 0.133 | 1.20 |
| | | 35 x 25 | 1.98 | 0.15 | 0.199 | 1.20 |
| | 1,200 | 25 x 50 | 2.35 | 0.10 | 0.111 | 1.31 |
| | | 30 x 40 | 2.35 | 0.10 | 0.111 | 1.31 |
| | | 35 x 30 | 2.29 | 0.15 | 0.166 | 1.31 |
| | 1,500 | 30 x 35 | 2.56 | 0.10 | 0.088 | 1.47 |
| 35 x 35 | | 2.72 | 0.15 | 0.133 | 1.47 | |
| 1,800 | 30 x 45 | 2.97 | 0.10 | 0.074 | 1.50 | |
| | 35 x 40 | 3.09 | 0.15 | 0.111 | 1.50 | |
| 2,200 | 30 x 60 | 3.48 | 0.10 | 0.060 | 1.50 | |
| | 35 x 50 | 3.51 | 0.15 | 0.090 | 1.50 | |
| 2,700 | 35 x 55 | 4.05 | 0.15 | 0.074 | 1.50 | |
| 200 | 180 | 22 x 20 | 0.70 | 0.10 | 0.737 | 0.57 |
| | 220 | 20 x 25 | 0.80 | 0.10 | 0.603 | 0.63 |
| | | 25 x 20 | 0.84 | 0.10 | 0.603 | 0.63 |
| | 270 | 20 x 30 | 0.96 | 0.10 | 0.491 | 0.70 |
| | | 22 x 25 | 1.03 | 0.10 | 0.491 | 0.70 |
| | 330 | 22 x 30 | 1.21 | 0.10 | 0.402 | 0.77 |
| | 390 | 20 x 35 | 1.24 | 0.10 | 0.340 | 0.84 |
| | | 22 x 35 | 1.39 | 0.10 | 0.340 | 0.84 |
| | | 25 x 25 | 1.31 | 0.10 | 0.340 | 0.84 |
| | 470 | 20 x 40 | 1.44 | 0.10 | 0.282 | 0.84 |
| | | 22 x 35 | 1.52 | 0.10 | 0.282 | 0.92 |
| | | 25 x 30 | 1.52 | 0.10 | 0.282 | 0.92 |
| | 560 | 20 x 50 | 1.74 | 0.10 | 0.237 | 0.92 |
| | | 22 x 40 | 1.66 | 0.10 | 0.237 | 1.00 |
| | | 25 x 35 | 1.75 | 0.10 | 0.237 | 1.00 |
| | | 30 x 25 | 1.64 | 0.10 | 0.237 | 1.00 |
| | 680 | 22 x 45 | 2.04 | 0.10 | 0.195 | 1.11 |
| | | 25 x 40 | 2.04 | 0.10 | 0.195 | 1.11 |
| | | 30 x 30 | 1.96 | 0.10 | 0.195 | 1.11 |
| | 820 | 25 x 45 | 2.34 | 0.10 | 0.162 | 1.21 |
| 30 x 35 | | 2.27 | 0.10 | 0.162 | 1.21 | |
| 35 x 25 | | 1.99 | 0.15 | 0.243 | 1.21 | |

DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 200 (continue) | 1,000 | 25 x 50 | 2.26 | 0.10 | 0.133 | 1.34 |
| | | 30 x 40 | 2.63 | 0.10 | 0.133 | 1.34 |
| | | 35 x 30 | 2.51 | 0.15 | 0.199 | 1.34 |
| | 1,200 | 30 x 45 | 3.00 | 0.10 | 0.111 | 1.47 |
| | | 35 x 35 | 2.92 | 0.15 | 0.166 | 1.47 |
| | 1,500 | 30 x 50 | 3.36 | 0.10 | 0.088 | 1.50 |
| | | 35 x 40 | 3.34 | 0.15 | 0.133 | 1.50 |
| | 1,800 | 30 x 60 | 3.64 | 0.10 | 0.074 | 1.50 |
| | | 35 x 45 | 3.51 | 0.15 | 0.111 | 1.50 |
| | 2,200 | 35 x 55 | 4.01 | 0.15 | 0.090 | 1.50 |
| 250 | 180 | 22 x 25 | 0.77 | 0.10 | 0.737 | 0.64 |
| | 220 | 20 x 30 | 0.87 | 0.10 | 0.603 | 0.70 |
| | 270 | 20 x 35 | 1.03 | 0.10 | 0.491 | 0.78 |
| | | 22 x 30 | 1.02 | 0.10 | 0.491 | 0.78 |
| | | 25 x 25 | 1.08 | 0.10 | 0.491 | 0.78 |
| | 330 | 20 x 40 | 1.21 | 0.10 | 0.402 | 0.86 |
| | | 22 x 35 | 1.20 | 0.10 | 0.402 | 0.86 |
| | | 25 x 30 | 1.27 | 0.10 | 0.402 | 0.86 |
| | 390 | 20 x 50 | 1.45 | 0.10 | 0.340 | 0.94 |
| | | 22 x 40 | 1.38 | 0.10 | 0.340 | 0.94 |
| | | 25 x 35 | 1.46 | 0.10 | 0.340 | 0.94 |
| | | 30 x 25 | 1.39 | 0.10 | 0.340 | 0.94 |
| | 470 | 22 x 45 | 1.46 | 0.10 | 0.282 | 1.03 |
| | | 25 x 40 | 1.69 | 0.10 | 0.282 | 1.03 |
| | | 30 x 30 | 1.63 | 0.10 | 0.282 | 1.03 |
| | 560 | 25 x 45 | 1.93 | 0.10 | 0.237 | 1.12 |
| | | 35 x 25 | 1.78 | 0.15 | 0.355 | 1.12 |
| | 680 | 25 x 50 | 2.04 | 0.10 | 0.195 | 1.24 |
| | | 30 x 35 | 2.06 | 0.10 | 0.195 | 1.24 |
| | | 35 x 30 | 2.06 | 0.15 | 0.293 | 1.24 |
| | 820 | 30 x 45 | 2.48 | 0.10 | 0.162 | 1.36 |
| | | 35 x 35 | 2.41 | 0.15 | 0.243 | 1.36 |
| | 1,000 | 30 x 50 | 2.65 | 0.10 | 0.133 | 1.50 |
| | | 35 x 40 | 2.76 | 0.15 | 0.199 | 1.50 |
| | 1,200 | 30 x 60 | 3.15 | 0.10 | 0.111 | 1.50 |
| | | 35 x 45 | 3.14 | 0.15 | 0.166 | 1.50 |
| 1,800 | 35 x 60 | 3.97 | 0.15 | 0.111 | 1.50 | |
| 350 | 100 | 20 x 30 | 0.53 | 0.15 | 1.990 | 0.56 |
| | | 22 x 25 | 0.52 | 0.15 | 1.990 | 0.56 |
| | | 25 x 20 | 0.52 | 0.15 | 1.990 | 0.56 |
| | 120 | 20 x 35 | 0.63 | 0.15 | 1.659 | 0.61 |
| | | 22 x 30 | 0.62 | 0.15 | 1.659 | 0.61 |
| | | 25 x 25 | 0.65 | 0.15 | 1.659 | 0.61 |
| | 150 | 20 x 40 | 0.74 | 0.15 | 1.327 | 0.69 |
| | | 22 x 35 | 0.74 | 0.15 | 1.327 | 0.69 |

DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 350 (continue) | 180 | 20 x 45 | 0.81 | 0.15 | 1.106 | 0.75 |
| | | 22 x 40 | 0.81 | 0.15 | 1.106 | 0.75 |
| | | 25 x 30 | 0.77 | 0.15 | 1.106 | 0.75 |
| | | 30 x 25 | 0.80 | 0.15 | 1.106 | 0.75 |
| | 220 | 20 x 50 | 0.94 | 0.15 | 0.905 | 0.83 |
| | | 22 x 45 | 0.94 | 0.15 | 0.905 | 0.83 |
| | | 25 x 35 | 0.91 | 0.15 | 0.905 | 0.83 |
| | 270 | 22 x 50 | 1.09 | 0.15 | 0.737 | 0.92 |
| | | 25 x 40 | 1.06 | 0.15 | 0.737 | 0.92 |
| | | 30 x 30 | 1.05 | 0.15 | 0.737 | 0.92 |
| | | 35 x 25 | 1.08 | 0.15 | 0.737 | 0.92 |
| | 330 | 25 x 45 | 1.24 | 0.15 | 0.603 | 1.02 |
| | | 30 x 35 | 1.24 | 0.15 | 0.603 | 1.02 |
| | | 35 x 30 | 1.33 | 0.15 | 0.603 | 1.02 |
| | 390 | 30 x 40 | 1.42 | 0.15 | 0.510 | 1.11 |
| | | 35 x 30 | 1.39 | 0.15 | 0.510 | 1.11 |
| | 470 | 30 x 45 | 1.56 | 0.15 | 0.423 | 1.22 |
| | | 35 x 35 | 1.53 | 0.15 | 0.423 | 1.22 |
| | 560 | 30 x 50 | 1.78 | 0.15 | 0.355 | 1.33 |
| | | 35 x 40 | 1.77 | 0.15 | 0.355 | 1.33 |
| 680 | 30 x 60 | 1.94 | 0.15 | 0.293 | 1.46 | |
| | 35 x 50 | 1.95 | 0.15 | 0.293 | 1.46 | |
| 820 | 35 x 55 | 2.23 | 0.15 | 0.243 | 1.50 | |
| 400 | 56 | 22 x 20 | 0.41 | 0.15 | 3.554 | 0.45 |
| | 68 | 22 x 25 | 0.52 | 0.15 | 2.927 | 0.49 |
| | | 25 x 20 | 0.49 | 0.15 | 2.927 | 0.49 |
| | 82 | 20 x 30 | 0.54 | 0.15 | 2.427 | 0.54 |
| | 100 | 20 x 35 | 0.64 | 0.15 | 1.990 | 0.60 |
| | | 22 x 30 | 0.67 | 0.15 | 1.990 | 0.60 |
| | 120 | 20 x 40 | 0.74 | 0.15 | 1.659 | 0.66 |
| | | 22 x 35 | 0.78 | 0.15 | 1.659 | 0.66 |
| | | 25 x 25 | 0.69 | 0.15 | 1.659 | 0.66 |
| | 150 | 20 x 45 | 0.87 | 0.15 | 1.327 | 0.73 |
| | | 22 x 40 | 0.91 | 0.15 | 1.327 | 0.73 |
| | | 25 x 30 | 0.83 | 0.15 | 1.327 | 0.73 |
| | | 30 x 25 | 0.86 | 0.15 | 1.327 | 0.73 |
| | 180 | 22 x 45 | 1.04 | 0.15 | 1.106 | 0.80 |
| | | 25 x 35 | 0.97 | 0.15 | 1.106 | 0.80 |
| | 220 | 22 x 50 | 1.17 | 0.15 | 0.905 | 0.89 |
| | | 25 x 40 | 1.14 | 0.15 | 0.905 | 0.89 |
| | | 30 x 30 | 1.12 | 0.15 | 0.905 | 0.89 |
| | | 35 x 25 | 1.15 | 0.15 | 0.905 | 0.89 |
| | 270 | 25 x 50 | 1.40 | 0.15 | 0.737 | 0.99 |
| | | 30 x 35 | 1.31 | 0.15 | 0.737 | 0.99 |
| | | 35 x 30 | 1.31 | 0.15 | 0.737 | 0.99 |
| | 330 | 30 x 40 | 1.39 | 0.15 | 0.603 | 1.09 |
| | | 35 x 30 | 1.34 | 0.15 | 0.603 | 1.09 |
| | 390 | 30 x 45 | 1.49 | 0.15 | 0.510 | 1.18 |
| | | 35 x 35 | 1.47 | 0.15 | 0.510 | 1.18 |

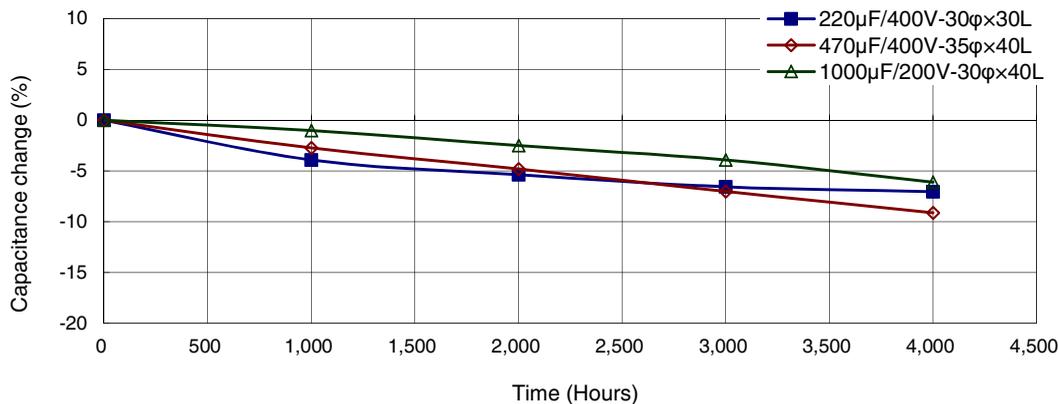
DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 400 (continue) | 470 | 30 x 50 | 1.72 | 0.15 | 0.423 | 1.30 |
| | | 35 x 40 | 1.71 | 0.15 | 0.423 | 1.30 |
| | 560 | 30 x 60 | 2.03 | 0.15 | 0.355 | 1.42 |
| | | 35 x 45 | 2.23 | 0.15 | 0.355 | 1.42 |
| | 680 | 35 x 55 | 2.31 | 0.15 | 0.293 | 1.50 |
| 820 | 35 x 60 | 2.54 | 0.15 | 0.243 | 1.50 | |
| 420 | 56 | 20 x 25 | 0.41 | 0.15 | 3.554 | 0.46 |
| | | 22 x 20 | 0.40 | 0.15 | 3.554 | 0.46 |
| | 68 | 20 x 30 | 0.49 | 0.15 | 2.927 | 0.51 |
| | | 22 x 25 | 0.48 | 0.15 | 2.927 | 0.51 |
| | 82 | 20 x 30 | 0.54 | 0.15 | 2.427 | 0.56 |
| | | 22 x 25 | 0.53 | 0.15 | 2.427 | 0.56 |
| | 100 | 20 x 35 | 0.64 | 0.15 | 1.990 | 0.61 |
| | | 22 x 30 | 0.63 | 0.15 | 1.990 | 0.61 |
| | | 25 x 25 | 0.63 | 0.15 | 1.990 | 0.61 |
| | 120 | 20 x 40 | 0.74 | 0.15 | 1.659 | 0.67 |
| | | 22 x 35 | 0.74 | 0.15 | 1.659 | 0.67 |
| | | 25 x 30 | 0.78 | 0.15 | 1.659 | 0.67 |
| | 150 | 20 x 50 | 0.92 | 0.15 | 1.327 | 0.75 |
| | | 22 x 40 | 0.87 | 0.15 | 1.327 | 0.75 |
| | | 30 x 25 | 0.80 | 0.15 | 1.327 | 0.75 |
| | 180 | 22 x 45 | 0.93 | 0.15 | 1.106 | 0.82 |
| | | 25 x 35 | 0.90 | 0.15 | 1.106 | 0.82 |
| | | 30 x 30 | 0.98 | 0.15 | 1.106 | 0.82 |
| | 220 | 25 x 45 | 1.01 | 0.15 | 0.905 | 0.91 |
| | | 30 x 35 | 1.05 | 0.15 | 0.905 | 0.91 |
| | | 35 x 25 | 0.97 | 0.15 | 0.905 | 0.91 |
| | 270 | 25 x 50 | 1.17 | 0.15 | 0.737 | 1.01 |
| | | 30 x 40 | 1.22 | 0.15 | 0.737 | 1.01 |
| | | 35 x 30 | 1.15 | 0.15 | 0.737 | 1.01 |
| | 330 | 30 x 45 | 1.37 | 0.15 | 0.603 | 1.12 |
| | | 35 x 35 | 1.35 | 0.15 | 0.603 | 1.12 |
| | 390 | 30 x 50 | 1.56 | 0.15 | 0.510 | 1.21 |
| | | 35 x 40 | 1.55 | 0.15 | 0.510 | 1.21 |
| 470 | 30 x 60 | 1.76 | 0.15 | 0.423 | 1.33 | |
| | 35 x 45 | 1.70 | 0.15 | 0.423 | 1.33 | |
| 560 | 35 x 50 | 1.94 | 0.15 | 0.355 | 1.45 | |
| 680 | 35 x 60 | 2.31 | 0.15 | 0.293 | 1.50 | |
| 450 | 56 | 20 x 25 | 0.41 | 0.15 | 3.554 | 0.48 |
| | 82 | 20 x 30 | 0.54 | 0.15 | 2.427 | 0.58 |
| | | 25 x 25 | 0.57 | 0.15 | 2.427 | 0.58 |
| | 100 | 20 x 45 | 0.71 | 0.15 | 1.990 | 0.64 |
| | | 22 x 35 | 0.67 | 0.15 | 1.990 | 0.64 |
| | 120 | 20 x 50 | 0.82 | 0.15 | 1.659 | 0.70 |
| | | 22 x 40 | 0.78 | 0.15 | 1.659 | 0.70 |
| 25 x 30 | | 0.74 | 0.15 | 1.659 | 0.70 | |
| | | 30 x 25 | 0.77 | 0.15 | 1.659 | 0.70 |

DIMENSIONS & PERMISSABLE RIPPLE CURRENT (CONTINUE)

| Rated Voltage (Vdc) | Capacitance 120Hz, 20°C (μF) | D x L (mm) | Ripple Current 120Hz, 105°C (A/rms) | Tan δ at 120Hz, 20°C | ESR 120Hz, 20°C (Ω) | LC 5 minutes (mA) |
|---------------------|------------------------------|------------|-------------------------------------|----------------------|---------------------|-------------------|
| 450 (continue) | 150 | 22 x 45 | 0.92 | 0.15 | 1.327 | 0.78 |
| | | 25 x 35 | 0.89 | 0.15 | 1.327 | 0.78 |
| | | 30 x 30 | 0.93 | 0.15 | 1.327 | 0.78 |
| | | 35 x 25 | 0.95 | 0.15 | 1.327 | 0.78 |
| | 180 | 22 x 50 | 1.06 | 0.15 | 1.106 | 0.85 |
| | | 25 x 40 | 1.03 | 0.15 | 1.106 | 0.85 |
| | | 30 x 30 | 1.01 | 0.15 | 1.106 | 0.85 |
| | | 35 x 25 | 1.04 | 0.15 | 1.106 | 0.85 |
| | 220 | 25 x 45 | 1.18 | 0.15 | 0.905 | 0.94 |
| | | 30 x 35 | 1.18 | 0.15 | 0.905 | 0.94 |
| | | 35 x 30 | 1.22 | 0.15 | 0.905 | 0.94 |
| | 270 | 30 x 40 | 1.17 | 0.15 | 0.737 | 1.05 |
| | 330 | 30 x 50 | 1.42 | 0.15 | 0.603 | 1.16 |
| | | 35 x 35 | 1.64 | 0.15 | 0.603 | 1.16 |
| 390 | 35 x 40 | 1.74 | 0.15 | 0.510 | 1.26 | |
| 470 | 35 x 50 | 1.85 | 0.15 | 0.423 | 1.38 | |
| 560 | 35 x 50 | 2.02 | 0.15 | 0.355 | 1.50 | |
| 500 | 82 | 22 x 35 | 0.68 | 0.15 | 2.427 | 0.61 |
| | | 25 x 32 | 0.85 | 0.15 | 2.540 | 0.82 |
| | 100 | 22 x 40 | 0.79 | 0.15 | 1.990 | 0.67 |
| | | 25 x 40 | 0.85 | 0.15 | 1.990 | 0.67 |
| | | 30 x 35 | 1.20 | 0.15 | 1.990 | 0.67 |
| | 120 | 22 x 45 | 0.91 | 0.15 | 1.659 | 0.73 |
| | | 25 x 45 | 0.98 | 0.15 | 1.659 | 0.73 |
| | 150 | 22 x 50 | 1.07 | 0.15 | 1.327 | 0.82 |
| | | 25 x 55 | 1.20 | 0.15 | 1.327 | 0.82 |
| | 220 | 30 x 40 | 1.40 | 0.15 | 0.905 | 0.99 |
| | 270 | 35 x 35 | 1.61 | 0.15 | 0.737 | 1.10 |
| | 330 | 35 x 40 | 1.88 | 0.15 | 0.603 | 1.22 |
| 390 | 35 x 45 | 2.15 | 0.15 | 0.510 | 1.32 | |

CHARACTERISTICS CURVES



■ CHARACTERISTICS CURVES

