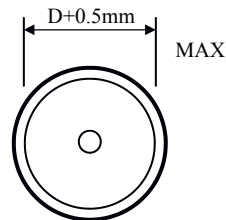
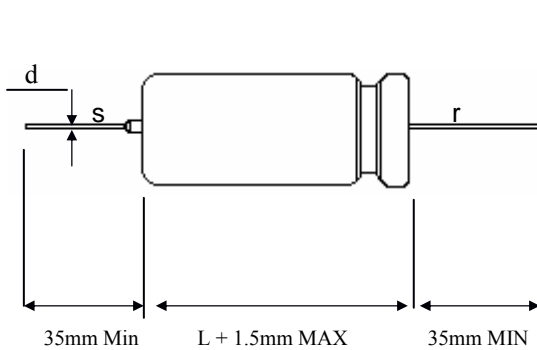


- Industrial, Automotive, Audio, Video, Lighting
- Low voltage

■ SPECIFICATIONS

| Item | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Operating Temperature Range (°C) | -40°C + 85°C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range (V) | 3V ~ 100V | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Range | 0.1 μF ~ 40000 μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Tolerance (25°C 100Hz) | -20% ~ +20%(M) 120HZ 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | 0.01CV + 3 μ A MAXIMUM, after 5 minutes 3UA MAXIMUM 0.01CV ≤ 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor Tan δ at 25°C, 120HZ | <table border="1"> <thead> <tr> <th>W.V.</th> <th>3</th> <th>6</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>40</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tanδ</td> <td>0.35</td> <td>0.25</td> <td>0.25</td> <td>0.20</td> <td>0.17</td> <td>0.15</td> <td>0.12</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table> | W.V. | 3 | 6 | 6.3 | 10 | 16 | 25 | 35 | 40 | 50 | 63 | 80 | 100 | Tanδ | 0.35 | 0.25 | 0.25 | 0.20 | 0.17 | 0.15 | 0.12 | 0.12 | 0.10 | 0.10 | 0.09 | 0.08 |
| | W.V. | 3 | 6 | 6.3 | 10 | 16 | 25 | 35 | 40 | 50 | 63 | 80 | 100 | | | | | | | | | | | | | | |
| Tanδ | 0.35 | 0.25 | 0.25 | 0.20 | 0.17 | 0.15 | 0.12 | 0.12 | 0.10 | 0.10 | 0.09 | 0.08 | | | | | | | | | | | | | | | |
| Tan δ values to be increased by 0.02 per 1000 μ F for capacitance values greater than 1000 μ F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature Range (°C) | 160 = -40°C + 85°C , 200V ~ 500V = -25°C + 85°C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range (V) | 160V ~ 500V | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Range | 0.47 μF ~ 33000 μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Tolerance (25°C 100Hz) | -20% ~ +20%(M) 120HZ 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | 0.03CV + 15 UA maximum CV ≤ 1000, after 5 minutes 0.02CV + 25UA ,Maximum CV > 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor Tan δ at 25°C, 120HZ | <table border="1"> <thead> <tr> <th>W.V.</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Tanδ</td> <td>0.10</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> </tr> </tbody> </table> | W.V. | 160 | 200 | 250 | 350 | 400 | 450 | Tanδ | 0.10 | 0.15 | 0.20 | 0.20 | 0.20 | 0.20 | | | | | | | | | | | | |
| | W.V. | 160 | 200 | 250 | 350 | 400 | 450 | | | | | | | | | | | | | | | | | | | | |
| Tanδ | 0.10 | 0.15 | 0.20 | 0.20 | 0.20 | 0.20 | | | | | | | | | | | | | | | | | | | | | |



■ LEAD DIMENSIONS:

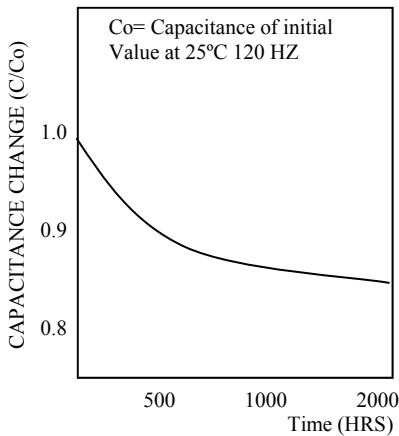
| D | 5 | 6 | 8 | 10 | 13 | 16 | 18 | 22 | 25 | 30 |
|---|-----|-----|-----|-----|-----|-----|-----|---------|---------|---------|
| d | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8/1.0 | 0.8/1.0 | 0.8/1.0 |

STANDARD RATINGS:

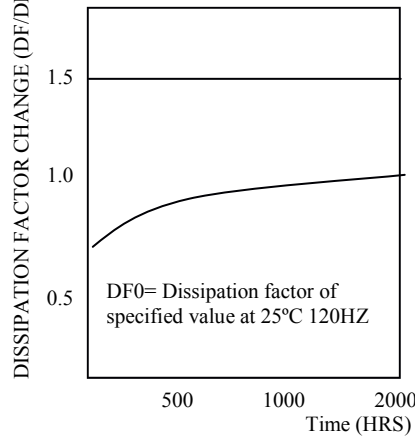
| W.V. μF | 3 | 6 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 450 |
|------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.47 | | | | | | | | | | | 5x12 | | | | | | |
| 1 | | | | | | | | | | | 5x12 | 6x12 | 6x12 | 6x16 | 6x16 | 8x16 | 8x16 |
| 2.2 | | | | | | | | | | | 5x12 | 6x16 | 6x16 | 8x16 | 8x16 | 8x20 | 10x21 |
| 3.3 | | | | | | | | | | 5x12 | 6x12 | 6x16 | 8x16 | 8x16 | 8x20 | 10x21 | 10x21 |
| 4.7 | | | | | | 5x12 | | | 5x12 | 6x12 | 6x12 | 6x16 | 8x16 | 8x20 | 10x21 | 10x21 | 10x25 |
| 10 | | | | | | 5x12 | 5x12 | 5x12 | 6x12 | 6x16 | 6x16 | 8x20 | 10x21 | 10x21 | 10x30 | 13x25 | 13x25 |
| 22 | | | | | 5x12 | 5x12 | 6x12 | 6x12 | 6x16 | 8x16 | 8x20 | 10x21 | 10x25 | 13x25 | 16x32 | 16x32 | 16x32 |
| 33 | | | 5x12 | 5x12 | 5x12 | 6x12 | 6x16 | 6x16 | 8x16 | 8x16 | 8x20 | 10x25 | 13x25 | 13x32 | 16x32 | 16x40 | 18x40 |
| 47 | | | 5x12 | 5x12 | 6x12 | 6x16 | 6x16 | 6x16 | 8x16 | 8x20 | 10x21 | 13x25 | 13x32 | 16x32 | 16x40 | 18x40 | 22x40 |
| 100 | | | 6x12 | 6x12 | 6x16 | 8x16 | 8x16 | 8x16 | 10x21 | 10x21 | 10x25 | 16x25 | 16x32 | 16x40 | 22x40 | 22x50 | 25x50 |
| 220 | | | 6x16 | 8x16 | 8x16 | 8x20 | 10x21 | 10x25 | 10x25 | 13x25 | 13x32 | 18x40 | 18x40 | 22x40 | | | |
| 330 | | | 6x16 | 8x16 | 8x16 | 10x21 | 10x21 | 10x30 | 13x25 | 13x32 | 16x25 | 22x40 | 22x50 | | | | |
| 470 | | 8x20 | 8x16 | 8x16 | 8x20 | 10x21 | 10x25 | 13x25 | 13x32 | 16x32 | 16x32 | 22x50 | | | | | |
| 1000 | | | 8x20 | 8x20 | 10x21 | 13x25 | 13x25 | 16x25 | 16x32 | 16x40 | 18x40 | | | | | | |
| 2200 | | | 10x30 | 13x25 | 10x21 | 16x25 | 16x32 | 18x40 | 22x40 | 22x50 | 25x50 | | | | | | |
| 3300 | | | 13x25 | 13x32 | 13x32 | 16x32 | 16x40 | 22x40 | 22x50 | 25x50 | | | | | | | |
| 4700 | | | 13x32 | 16x25 | 16x25 | 18x40 | 22x40 | 22x50 | 25x50 | | | | | | | | |
| 10000 | | | 16x40 | 18x40 | 22x40 | 22x50 | 25x50 | | | | | | | | | | |
| 22000 | | | 22x40 | 22x50 | 25x50 | | | | | | | | | | | | |
| 40000 | | | | | 30x60 | | | | | | | | | | | | |

85° LOAD LIFE

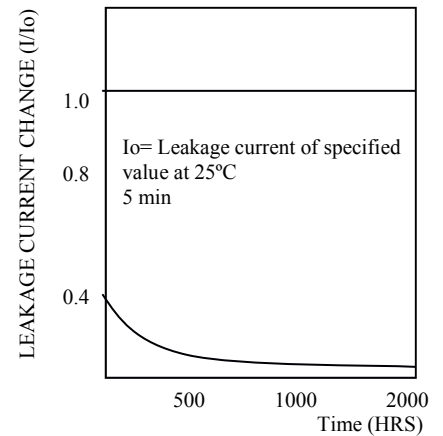
Multiplier of capacitance (C/Co) as a function of time.



Multiplier of dissipation factor (DF/DF0) as a function of time.



Multiplier of leakage current (I/I0) as a function of time.



| DIMENSIONS D X L & PERMISSIBLE RIPPLE CURRENTS mA RMS MAX. AT 120 HZ 85°C | | | | | | | | | | | | | | | | | | | | | |
|---|------|----|-----|--|------|-----|------|------|------|------|------|------|-------|------|------|------|------|------|-------|------|-----|
| W.V. | 3 | | 6 | | 6.3 | | 10 | | 12 | | 15 | | 16 | | 25 | | 35 | | 40 | | |
| S.V. | 4 | | 7.5 | | 8 | | 13 | | 15 | | 19 | | 20 | | 32 | | 44 | | 50 | | |
| μF | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | 5x12 | 12 | | | | | | |
| 2 | | | | | | | | | | | | | 5x12 | 14 | 5x12 | 17 | | | | | |
| 2.2 | | | | | | | | | | | | | 5x12 | 15 | | | | | | | |
| 4 | | | | | | | | | | | | | | | 5x12 | 25 | | | | | |
| 4.7 | | | | | | | | | | | | | | | 5x12 | 27 | | | | | |
| 5 | | | | | | | | | | | | | 5x12 | 22 | 5x12 | 28 | | | | | |
| 6 | | | | | | | | | | | | | | | 5x12 | 31 | | | | | |
| 10 | | | | | | | | | | | 5x12 | 30 | | | 5x12 | 40 | 5x12 | 35 | | | |
| | | | | | | | | | | | 6x16 | 38 | | | | | | | | | |
| 15 | | | | | 5x12 | 43 | | | | | | | 5x12 | 37 | 5x12 | 47 | 5x12 | 48 | 6x12 | 78 | |
| | | | | | | | | | | | | | | | | | | 6x12 | 53 | | |
| 20 | | | | | | | | | | | | | 5x12 | 42 | | | 6x16 | 61 | | | |
| | | | | | | | | | | | | | 6x13 | 47 | | | | | | | |
| 22 | | | | | | | | | | | | | 5x12 | 60 | 5x12 | 53 | 5x12 | 60 | 6x16 | 107 | |
| | | | | | | | | | | | | | 6x12 | 65 | 6x12 | 58 | 6x12 | 70 | | | |
| | | | | | | | | | | | | | | | | | 6x16 | 80 | | | |
| 25 | | | | | | | | | | | | | | | 6x12 | 61 | | | | | |
| | | | | | | | | | | | | | | | 6x16 | 70 | | | | | |
| 33 | | | | | 5x12 | 65 | 5x12 | 65 | | | | | 5x12 | 60 | 5x12 | 70 | 6x16 | 70 | 8x16 | 155 | |
| | | | | | | | | | | | | | 6x12 | 65 | 6x12 | 77 | | | | | |
| | | | | | | | | | | | | | 6x16 | 75 | | | | | | | |
| 35 | | | | | | | | | | | | | | | 6x12 | 79 | | | | | |
| | | | | | | | | | | | | | | | 6x16 | 91 | | | | | |
| 47 | | | | | 5x12 | 65 | 5x12 | 75 | | | | | 5x12 | 75 | 6x13 | 95 | 6x16 | 121 | 6x16 | 160 | |
| | | | | | | | 6x13 | 85 | | | | | 6x12 | 77 | 6x16 | 91 | 8x16 | 139 | 8x16 | 185 | |
| | | | | | | | 6x20 | 105 | | | | | 10x21 | 131 | 8x16 | 105 | | | 13x22 | 276 | |
| 50 | | | | | | | | 6x12 | 67 | 8x16 | 101 | 6x21 | 104 | 6x16 | 113 | | | | | | |
| 60 | 6x12 | 79 | | | | | | | | | | | | | | | | | | | |
| 68 | | | | | 6x12 | 123 | 6x12 | 132 | | | | | | 6x16 | 162 | 6x16 | 162 | 8x16 | 222 | 8x20 | 243 |
| | | | | | | | | | | | | | | | 8x16 | 205 | | | | | |
| 75 | | | | | | | | | | | | | | | 6x16 | 170 | 8x16 | 233 | | | |
| 100 | | | | | 6x12 | 116 | 6x12 | 146 | 6x16 | 184 | 8x20 | 155 | 6x14 | 116 | 6x16 | 150 | 8x16 | 194 | 8x16 | 207 | |
| | | | | | 8x16 | 154 | 6x16 | 168 | | | | | 6x16 | 125 | 8x13 | 156 | 8x20 | 275 | 8x20 | 295 | |
| | | | | | | | | | | | | | 8x13 | 130 | 8x16 | 158 | | | | | |
| | | | | | | | | | | | | | 8x20 | 161 | 8x20 | 176 | | | | | |

| DIMENSIONS D X L & PERMISSIBLE RIPPLE CURRENTS mA RMS MAX. AT 120 HZ 85°C | | | | | | | | | | | | | | | | | | | | |
|---|---|--|-------|-----|-------|------|-------|------|-------|------|-------|-------|-------|------|-------|------|-------|-------|-------|------|
| W.V. | 3 | | 6 | | 6.3 | | 10 | | 12 | | 15 | | 16 | | 25 | | 35 | | 40 | |
| S.V. | 4 | | 7.5 | | 8 | | 13 | | 15 | | 19 | | 20 | | 32 | | 44 | | 50 | |
| μF | | | | | | | | | | | | | | | | | | | | |
| 1500 | | | | | 13x26 | 1170 | 13x24 | 1200 | 13x32 | 1108 | | | 10x30 | 1086 | 16x32 | 1240 | 13x40 | 1155 | 16x40 | 1350 |
| | | | | | | | 13x26 | 1250 | | | | | 13x32 | 1280 | | | 16x28 | 1129 | | |
| | | | | | | | | | | | | | | | | | 16x40 | 1350 | | |
| 1700 | | | | | | | | | | | | | | | 16x32 | 1254 | | | | |
| 2000 | | | 10x38 | 568 | | | | | 13x32 | 805 | 13x32 | 901 | 13x32 | 931 | 16x32 | 1325 | | | | |
| 2200 | | | | | 10x30 | 826 | 13x25 | 920 | | | | | 13x22 | 1064 | 13x32 | 1223 | 16x32 | 1250 | 16x38 | 1376 |
| | | | | | 13x24 | 842 | | | | | | | 13x24 | 1111 | 16x25 | 1200 | 16x37 | 1344 | 16x40 | 1412 |
| | | | | | 13x26 | 876 | | | | | | | 13x26 | 1156 | 16x28 | 1269 | 16x40 | 1397 | 16x48 | 1547 |
| | | | | | | | | | | | | | 13x28 | 1199 | 16x32 | 1356 | 18x33 | 1345 | 18x30 | 1331 |
| | | | | | | | | | | | | | 13x32 | 1000 | | | | | 18x38 | 1498 |
| | | | | | | | | | | | | | | | | | | | 18x40 | 1537 |
| | | | | | | | | | | | | | | | | | | 22x40 | 1700 | |
| 2400 | | | | | | | 13x24 | 985 | | | | | | | | | | | | |
| 2500 | | | | | | | | | | | 16x32 | 730 | | | | | | | | |
| 3300 | | | | | 13x25 | 1020 | 13x32 | 1090 | | | | | 13x36 | 1103 | 16x32 | 1300 | 16x37 | 1346 | 18x40 | 1909 |
| | | | | | 13x32 | 1153 | 16x26 | 1090 | | | | | 16x25 | 1200 | 16x37 | 1397 | 16x40 | 1400 | 22x43 | 2246 |
| | | | | | | | | | | | | | 16x28 | 1269 | 16x40 | 1452 | 18x53 | 1665 | 22x52 | 2470 |
| | | | | | | | | | | | | | 16x32 | 1356 | 16x42 | 1487 | 22x51 | 1759 | | |
| | | | | | | | | | | | | | 18x40 | 1567 | | | | | | |
| 4700 | | | | | 13x22 | 970 | 16x25 | 1200 | | | | | 16x32 | 1360 | 18x40 | 1500 | 18x40 | 1447 | 22x40 | 2734 |
| | | | | | 13x32 | 1170 | 16x32 | 1323 | | | | | 16x37 | 1425 | 18x53 | 1682 | 22x40 | 1600 | 25x40 | 2991 |
| | | | | | | | | | | | | | 16x40 | 1444 | | | 22x51 | 1760 | 25x52 | 3500 |
| 5600 | | | | | | | | | | | | 16x38 | 1430 | | | | | | | |
| 5900 | | | | | | | | | | | | | | | | | | | | |
| 6800 | | | | | 16x32 | 1400 | 16x40 | 1460 | | | | | 18x40 | 1500 | 22x40 | 1600 | 22x50 | 2400 | | |
| 8000 | | | | | | | | | | | 22x40 | 1654 | 22x51 | 1979 | | | | | | |
| 8300 | | | | | | | | | | | | | | | | | 25x65 | 3543 | | |
| 10000 | | | | | 16x40 | 1450 | 18x40 | 1600 | | | | | 22x40 | 1800 | 22x50 | 1800 | 25x50 | 3500 | 25x51 | 3683 |
| | | | | | 18x38 | 1461 | 18x53 | 1795 | | | | | 22x45 | 1860 | 22x65 | 2000 | | | 25x60 | 3893 |
| | | | | | | | | | | | | | 22x51 | 1929 | 25x52 | 1906 | | | 25x65 | 3949 |
| | | | | | | | | | | | | | | | 25x60 | 1995 | | | | |
| 15000 | | | | | 22x40 | 1600 | 22x40 | 1600 | | | | | 22x52 | 2470 | 25x60 | 3500 | | | | |
| | | | | | | | | | | | | | 25x60 | 2756 | | | | | | |
| 16000 | | | | | | | | | | | | 25x45 | 2402 | | | | | | | |
| 22000 | | | | | 22x40 | 2200 | 25x50 | 2100 | | | | | 25x50 | 3500 | | | | | | |
| 40000 | | | | | | | | | | | | | 30x60 | 5519 | | | | | | |

| DIMENSIONS D X L & PERMISSIBLE RIPPLE CURRENTS mA RMS MAX. AT 120 HZ 85°C | | | | | | | | | | | | | | | | |
|---|------|-----|------|-----|----|--|------|------|------|------|-------|------|-------|------|-------|-----|
| W.V. | 50 | | 63 | | 75 | | 80 | | 100 | | 150 | | 200 | | | |
| S.V. | 63 | | 79 | | 94 | | 100 | | 125 | | 188 | | 250 | | | |
| μF | 63 | | 79 | | 94 | | 100 | | 125 | | 188 | | 250 | | | |
| 0.1 | | | | | | | | 5x12 | 5 | | | | | | | |
| 0.22 | | | | | | | | 5x12 | 5 | | | | | | | |
| 0.47 | 5x12 | 5 | 5x13 | 5 | | | | 5x12 | 5 | | | | | | | |
| 0.68 | 5x12 | 10 | | | | | | 5x12 | 10 | | | | | | | |
| 1 | 5x12 | 10 | 5x12 | 10 | | | | 5x12 | 12 | 6x14 | 15 | 5x12 | 12 | 6x12 | 17 | |
| | | | | | | | | 6x12 | 13 | | | 6x12 | 13 | 6x16 | 19 | |
| | | | | | | | | 6x16 | 15 | | | | | | | |
| 15 | 5x12 | 11 | | | | | | 5x12 | 20 | | | 6x12 | 22 | 6x16 | 21 | |
| 2 | 5x12 | 12 | | | | | | | 6x12 | 24 | 6x13 | 29 | | | 8x16 | 27 |
| | 6x13 | 13 | | | | | | | | | | | | | | |
| 2.2 | 5x12 | 14 | 5x12 | 16 | | | 5x12 | 18 | 5x12 | 21 | | | 6x14 | 20 | 6x16 | 27 |
| | 8x20 | 22 | | | | | | | 6x12 | 23 | | | 6x16 | 22 | | |
| 3.3 | 5x12 | 18 | 5x12 | 20 | | | 5x12 | 22 | 5x12 | 25 | 6x16 | 30 | 6x16 | 31 | 8x16 | 36 |
| | | | | | | | | | 6x12 | 30 | | | 8x16 | 35 | | |
| | | | | | | | | | 6x16 | 34 | | | | | | |
| 3.9 | | | | | | | | | | | 13x32 | 66 | | | | |
| 4 | 5x12 | 19 | | | | | | | | | 8x16 | 37 | | | 8x16 | 41 |
| 4.7 | 5x12 | 20 | 5x12 | 21 | | | 6x12 | 50 | 5x12 | 33 | | | 6x16 | 40 | 8x16 | 45 |
| | 6x13 | 22 | 6x16 | 25 | | | | | 6x12 | 39 | | | 8x16 | 46 | 8x20 | 50 |
| | | | | | | | | | 6x16 | 45 | | | | | | |
| 5 | 5x12 | 20 | | | | | | | | | 8x16 | 47 | | | | |
| | 6x16 | 25 | | | | | | | | | 8x20 | 52 | | | | |
| 5.6 | 5x13 | 21 | | | | | | | | | | | | | | |
| 6.8 | 5x12 | 22 | 5x12 | 24 | | | 6x12 | 60 | 6x16 | 72 | | | 8x20 | 59 | 8x20 | 59 |
| | | | 6x12 | 26 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | 8x20 | 60 | | | | |
| 10 | 5x12 | 26 | 5x12 | 28 | | | 6x16 | 83 | 6x12 | 68 | 8x20 | 65 | 8x20 | 67 | 10x21 | 72 |
| | 6x12 | 28 | 6x12 | 85 | | | | | 8x16 | 90 | 10x21 | 72 | 10x17 | 69 | | |
| | 6x16 | 32 | 6x16 | 98 | | | | | | | | | | | | |
| | 8x16 | 36 | 8x16 | 113 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | 8x20 | 71 | | | | |
| | | | | | | | | | | | 10x21 | 81 | | | | |
| 15 | 6x12 | 85 | 6x16 | 102 | | | 8x16 | 120 | 8x16 | 128 | 10x21 | 115 | 10x20 | 116 | 10x21 | 100 |
| | 6x16 | 98 | | | | | | | | | | | | | 10x25 | 110 |
| 20 | 6x12 | 98 | | | | | | | 8x20 | 165 | 10x21 | 132 | | | | |
| | 6x16 | 113 | | | | | | | | | 10x24 | 141 | | | | |
| | | | | | | | | | | | 10x26 | 146 | | | | |
| | | | | | | | | | | | 10x32 | 161 | | | | |
| 22 | 6x12 | 85 | 6x16 | 113 | | | 8x16 | 146 | 8x16 | 111 | | | 10x21 | 108 | 10x25 | 126 |
| | 6x16 | 113 | | | | | | | 8x20 | 124 | | | 10x24 | 115 | | |
| 25 | 6x12 | 98 | | | | | | | | | 10x24 | 115 | | | | |
| | 6x16 | 113 | | | | | | | | | 10x30 | 128 | | | | |
| 30 | | | | | | | | | 8x20 | 124 | 10x30 | 128 | | | | |

| DIMENSIONS D X L & PERMISSIBLE RIPPLE CURRENTS mA RMS MAX. AT 120 HZ 85°C | | | | | | | | | | | | | | | | |
|---|-------|-------|-------|-----|-------|------|-------|-------|-------|-----|-------|-----|-------|------|-------|------|
| W.V. | 50 | | 63 | | 75 | | 80 | | 100 | | 150 | | 160 | | 200 | |
| S.V. | 63 | | 79 | | 94 | | 100 | | 125 | | 188 | | 200 | | 250 | |
| μF | 63 | | 79 | | 94 | | 100 | | 125 | | 188 | | 200 | | 250 | |
| 33 | 6x16 | 111 | 6x16 | 111 | | | 8x16 | 179 | 8x16 | 136 | | | 10x25 | 144 | 13x25 | 157 |
| | | | 8x16 | 121 | | | | | 8x20 | 152 | | | 13x24 | 160 | | |
| | | | | | | | | | 10x16 | 152 | | | 13x32 | 184 | | |
| 35 | 8x16 | 113 | | | | | | | | | | | | | | |
| 40 | | | | | | | | | 10x24 | 204 | 13x32 | 328 | | | | |
| 47 | 6x16 | 130 | 8x16 | 133 | | | 8x20 | 234 | 8x20 | 282 | | | 13x25 | 180 | 13x32 | 245 |
| | 8x16 | 150 | | | | | | | 10x21 | 189 | | | 13x32 | 367 | | |
| | | | | | | | | | | | | | 16x21 | 329 | | |
| | | | | | | | | | | | | | 16x28 | 379 | | |
| 50 | 8x16 | 154 | | | | | | | 8x20 | 290 | 13x32 | 558 | | | | |
| | | | | | | | | | 10x21 | 291 | | | | | | |
| 68 | 8x16 | 223 | 8x20 | 281 | | | 10x21 | 320 | 10x25 | 371 | | | 16x25 | 382 | 16x32 | 366 |
| | 8x20 | 250 | 10x21 | 321 | | | | | | | | | | | | |
| | 10x20 | 267 | | | | | | | | | | | | | | |
| | 13x32 | 403 | | | | | | | | | | | | | | |
| 75 | 8x20 | 262 | | | | | | | | | | | | | | |
| | 10x25 | 327 | | | | | | | | | | | | | | |
| 100 | 8x16 | 250 | 8x20 | 313 | | | 10x21 | 403 | 10x24 | 350 | | | | | | |
| | 8x20 | 279 | 10x21 | 358 | | | | | 10x25 | 449 | 16x26 | 456 | 16x25 | 463 | 16x32 | 517 |
| | 10x17 | 287 | 10x25 | 390 | | | | | 10x26 | 457 | 16x32 | 506 | 16x32 | 523 | 16x40 | 578 |
| | 13x32 | 448 | 10x32 | 441 | | | | | 10x30 | 490 | | | | | | |
| | | | | | | | | | 13x22 | 478 | | | | | | |
| | | | | | | | | | 13x26 | 519 | | | | | | |
| | | | | | | | | | 13x28 | 538 | | | | | | |
| | | | | | | | | 16x32 | 638 | | | | | | | |
| 150 | 10x21 | 423 | 10x21 | 475 | | | 13x26 | 606 | 13x26 | 642 | | | 18x40 | 662 | 18x40 | 740 |
| | 10x24 | 452 | 10x25 | 519 | | | | | 13x32 | 712 | | | | | | |
| | | | 10x30 | 568 | | | | | | | | | | | | |
| 200 | 10x21 | 488 | | | | | | | | | | | | | | |
| | 10x24 | 521 | | | | | | | | | | | | | | |
| 220 | 10x21 | 471 | 10x20 | 517 | | | 13x25 | 734 | 13x26 | 836 | | | 18x40 | 1504 | 18x40 | 1681 |
| | 10x24 | 503 | 10x25 | 578 | | | | | 13x32 | 927 | | | | | | |
| | 10x25 | 514 | 10x26 | 589 | | | | | 13x36 | 983 | | | | | | |
| | 10x26 | 524 | 10x30 | 632 | | | | | 16x26 | 926 | | | | | | |
| | 13x24 | 574 | 13x22 | 617 | | | | | | | | | | | | |
| | 13x28 | 619 | 13x24 | 644 | | | | | | | | | | | | |
| | | 13x27 | 683 | | | | | | | | | | | | | |
| 250 | 10x21 | 502 | | | 13x32 | 834 | | | | | | | | | | |
| | 10x24 | 536 | | | 13x36 | 884 | | | | | | | | | | |
| | 10x30 | 599 | | | 16x47 | 1120 | | | | | | | | | | |
| | 13x24 | 610 | | | | | | | | | | | | | | |
| 300 | 10x24 | 587 | | | | | | | 16x32 | 986 | | | | | | |

| AXIAL TYPE—MDI | | DIMENSION DXL (mm) | | | | | | |
|----------------|--------|--------------------|--------|--------|--------|--------|--------|--|
| W.V. CAP | 10 | 16 | 25 | 35 | 50 | 63 | 100 | |
| 0.47 | | | | | | 5X10.5 | 5X10.5 | |
| 0.68 | | | | | | 5X10.5 | 5X10.5 | |
| 1 | | | | | | 5X10.5 | 5X10.5 | |
| 2.2 | | | | | | 5X10.5 | 5X10.5 | |
| 3.3 | | | | | | 5X10.5 | 5X10.5 | |
| 4.7 | | | | | 5X10.5 | 5X10.5 | 6X10.5 | |
| 10 | | | | | 5X10.5 | 6X10.5 | 6X12 | |
| 22 | | | 5X10.5 | 6X10.5 | 6X10.5 | 6X16 | 8X16 | |
| 33 | | 5X10.5 | 6X10.5 | 6X16 | 6X16 | 6X16 | 8X16 | |
| 47 | 5X10.5 | 6X10.5 | 6X10.5 | 6X16 | 6X16 | 8X16 | 8X20 | |
| 100 | 6X10.5 | 6X14 | 6X16 | 8X16 | 8X16 | 8X20 | 10X24 | |

LOW TEMPERATURE CHARACTERISTICS:

| IMPEDANCE (Z) RATIO AT 120Hz SHALL NOT EXCEED THESE FIGURES | | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|----|-----|
| W.V. | 6.3 | 10 | 16 | 25 | 35 | 40 | 50 | 63 | 80 | 100 |
| Z - 25°C/Z+25°C | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Z - 40°C/Z+25°C | 8 | 64 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |

| | | | | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|--|--|--|--|
| W.V. | 160 | 200 | 250 | 350 | 400 | 450 | | | | |
| Z - 25°C/Z+25°C | 2 | 8 | 8 | 12 | 16 | 16 | | | | |
| Z - 40°C/Z+25°C | 3 | - | - | - | - | - | | | | |