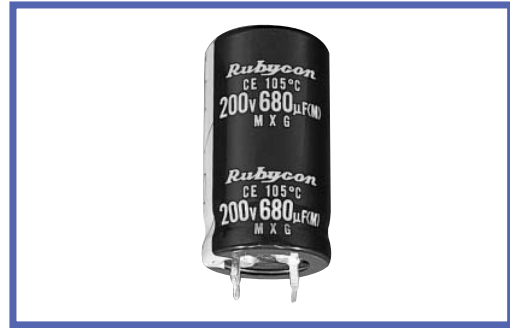


MXG SERIES
105°C Miniaturized, Snap-in Terminal Type
◆FEATURES

- Load Life : 105°C 3000 hours.(50~100WV:2000hours)
- Smaller size than MXC series.
- RoHS compliance.


◆SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | |
|-----------------------------------|---|--------------|--------------------|-----------------------------------|--------------------|--|------------------|------------------------------------|------|------|------------------|------|---|---|
| Category Temperature Range | -40~+105°C | -25~+105°C | | | | | | | | | | | | |
| Rated Voltage Range | 50~100V.DC | 1600~450V.DC | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | |
| Leakage Current(MAX) | $I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I=Leakage Current(µA) C=Rated Capacitance(µF) V=Rated Voltage(V) | | | | | | | | | | | | | |
| (tanδ) Dissipation Factor(MAX) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>50</th> <th>63</th> <th>80~100</th> <th>160~450</th> </tr> </thead> <tbody> <tr> <td>tan δ</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> </tr> </tbody> </table> (20°C, 120Hz) | | Rated Voltage (V) | 50 | 63 | 80~100 | 160~450 | tan δ | 0.35 | 0.30 | 0.25 | 0.20 | | |
| Rated Voltage (V) | 50 | 63 | 80~100 | 160~450 | | | | | | | | | | |
| tan δ | 0.35 | 0.30 | 0.25 | 0.20 | | | | | | | | | | |
| Impedance Ratio(MAX) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>50~100</th> <th>160~250</th> <th>400~450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>4</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>-</td> <td>-</td> </tr> </tbody> </table> (120Hz) | | Rated Voltage (V) | 50~100 | 160~250 | 400~450 | Z(-25°C)/Z(20°C) | 3 | 4 | 8 | Z(-40°C)/Z(20°C) | 12 | - | - |
| Rated Voltage (V) | 50~100 | 160~250 | 400~450 | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 3 | 4 | 8 | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 12 | - | - | | | | | | | | | | | |
| Endurance | After applying rated voltage with rated ripple current for 3000hrs(50~100W:2000hrs) at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </tbody> </table> | | Capacitance Change | Within ±20% of the initial value. | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. | | | | | | |
| Capacitance Change | Within ±20% of the initial value. | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | | | | | | | | | | | | | |

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

| Frequency (Hz) | | 60(50) | 120 | 500 | 1k | 10k ≤ |
|----------------|-----------|--------|------|------|------|-------|
| Coefficient | 50~100WV | 0.90 | 1.00 | 1.05 | 1.10 | 1.15 |
| | 160~250WV | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 400~450WV | 0.80 | 1.00 | 1.20 | 1.25 | 1.40 |

◆PART NUMBER

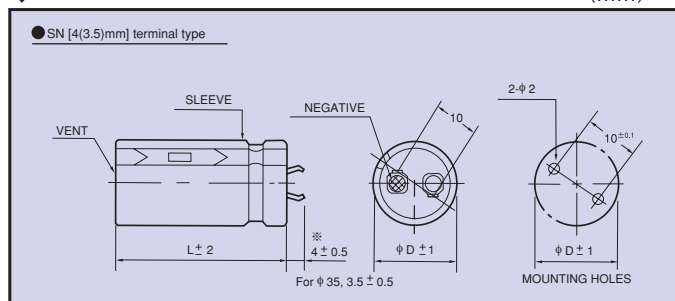
| | | | | | | |
|---------------|------------|-------------------|-----------------------|--------|---------------|------------|
| □□□ | MXG | □□□□□ | □ | □□□ | SN | DXL |
| Rated Voltage | Series | Rated Capacitance | Capacitance Tolerance | Option | Terminal Code | Case Size |

◆Option

| | Code |
|--------------------------|-------|
| PET Sleeve without plate | EFC |
| PVC Sleeve without plate | OOE |
| PVC Sleeve with plate | Blank |

◆DIMENSIONS

(mm)



◆ STANDARD SIZE

| Cap (μ F) | wv ϕ D | 250 | | | | | 400 | | | | |
|-------------------|----------------|---------------|---------------|---------------|---------------|-----------|---------------|---------------|---------------|---------------|---------------|
| | | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 |
| 68 | | | | | | | 20 x 25; 0.49 | | | | |
| 82 | | | | | | | 20 x 25; 0.57 | 22 x 25; 0.57 | | | |
| 100 | | | | | | | 20 x 30; 0.70 | 22 x 25; 0.70 | | | |
| 120 | | | | | | | 20 x 35; 0.75 | 22 x 30; 0.75 | 25 x 25; 0.75 | | |
| 150 | | | | | | | 20 x 40; 0.88 | 22 x 35; 0.88 | 25 x 25; 0.88 | | |
| 180 | | | | | | | | 22 x 35; 0.95 | 25 x 30; 0.95 | 30 x 25; 0.95 | |
| 220 | 20 x 25; 1.00 | | | | | | | 22 x 45; 1.10 | 25 x 35; 1.10 | 30 x 25; 1.10 | |
| 270 | 20 x 30; 1.10 | 22 x 25; 1.10 | | | | | | 22 x 50; 1.22 | 25 x 40; 1.22 | 30 x 30; 1.22 | 35 x 25; 1.22 |
| 330 | 20 x 35; 1.20 | 22 x 30; 1.20 | 25 x 25; 1.20 | | | | | | 25 x 45; 1.44 | 30 x 35; 1.44 | 35 x 30; 1.44 |
| 390 | 20 x 40; 1.30 | 22 x 35; 1.30 | 25 x 25; 1.30 | | | | | | 25 x 50; 1.55 | 30 x 40; 1.55 | 35 x 30; 1.55 |
| 470 | 20 x 45; 1.40 | 22 x 40; 1.40 | 25 x 30; 1.40 | 30 x 25; 1.40 | | | | | | 30 x 45; 1.68 | 35 x 35; 1.66 |
| 560 | | 22 x 45; 1.50 | 25 x 35; 1.50 | 30 x 25; 1.50 | | | | | | 30 x 50; 1.90 | 35 x 40; 1.90 |
| 680 | | 22 x 50; 1.70 | 25 x 40; 1.70 | 30 x 30; 1.70 | 35 x 25; 1.70 | | | | | | 35 x 45; 2.12 |
| 820 | | | 25 x 45; 2.00 | 30 x 35; 2.00 | 35 x 30; 2.00 | | | | | | |
| 1000 | | | | 30 x 40; 2.20 | 35 x 35; 2.20 | | | | | | |
| 1200 | | | | 30 x 45; 2.30 | 35 x 35; 2.30 | | | | | | |
| 1500 | | | | | 35 x 45; 2.50 | | | | | | |
| 1800 | | | | | 35 x 50; 2.70 | | | | | | |

| Cap (μ F) | wv ϕ D | 420 | | | | | 450 | | | | |
|-------------------|----------------|---------------|---------------|---------------|---------------|-----------|---------------|---------------|---------------|---------------|---------------|
| | | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 |
| 56 | | | | | | | 20 x 25; 0.44 | | | | |
| 68 | 20 x 25; 0.50 | | | | | | 20 x 25; 0.50 | 22 x 25; 0.50 | | | |
| 82 | 20 x 25; 0.64 | 22 x 25; 0.64 | | | | | 20 x 30; 0.64 | 22 x 25; 0.64 | | | |
| 100 | 20 x 30; 0.66 | 22 x 25; 0.66 | 25 x 25; 0.66 | | | | 20 x 35; 0.69 | 22 x 30; 0.69 | 25 x 25; 0.69 | | |
| 120 | 20 x 35; 0.81 | 22 x 30; 0.81 | 25 x 25; 0.81 | | | | 20 x 35; 0.72 | 22 x 30; 0.72 | 25 x 25; 0.72 | | |
| 150 | 20 x 40; 0.84 | 22 x 35; 0.84 | 25 x 30; 0.84 | 30 x 25; 0.84 | | | 20 x 45; 0.79 | 22 x 35; 0.79 | 25 x 30; 0.79 | 30 x 25; 0.79 | |
| 180 | 20 x 45; 0.91 | 22 x 40; 0.91 | 25 x 30; 0.91 | 30 x 25; 0.91 | | | | 22 x 40; 0.87 | 25 x 35; 0.87 | 30 x 25; 0.87 | |
| 220 | | 22 x 45; 1.05 | 25 x 35; 1.05 | 30 x 30; 1.05 | 35 x 25; 1.05 | | | 22 x 50; 1.05 | 25 x 40; 1.05 | 30 x 30; 1.05 | 35 x 25; 1.05 |
| 270 | | | 25 x 40; 1.25 | 30 x 30; 1.25 | 35 x 25; 1.25 | | | | 25 x 45; 1.23 | 30 x 35; 1.23 | 35 x 30; 1.23 |
| 330 | | | 25 x 50; 1.42 | 30 x 35; 1.42 | 35 x 30; 1.42 | | | | 25 x 50; 1.38 | 30 x 40; 1.38 | 35 x 30; 1.38 |
| 390 | | | | 30 x 40; 1.61 | 35 x 35; 1.61 | | | | | 30 x 45; 1.61 | 35 x 35; 1.61 |
| 470 | | | | 30 x 45; 1.86 | 35 x 40; 1.86 | | | | | 30 x 50; 1.78 | 35 x 40; 1.78 |
| 560 | | | | | 35 x 45; 2.10 | | | | | | 35 x 45; 1.99 |
| 680 | | | | | 35 x 50; 2.20 | | | | | | |

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size ϕ DXL(mm)

◆ STANDARD SIZE

| Cap (μ F) | wv ϕ D | 50 | | | | | 63 | | | | |
|-------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 |
| 1500 | | | | | | | 20 x 25; 1.47 | | | | |
| 1800 | | | | | | | 20 x 30; 1.58 | | | | |
| 2200 | | 20 x 25; 1.60 | | | | | 20 x 35; 1.82 | | | | |
| 2700 | | 20 x 30; 1.73 | 22 x 25; 1.73 | | | | | 22 x 30; 2.11 | 25 x 25; 2.11 | | |
| 3300 | | 20 x 35; 1.97 | 22 x 30; 1.97 | | | | | 22 x 35; 2.33 | | | |
| 3900 | | 20 x 40; 2.22 | 22 x 35; 2.22 | 25 x 25; 2.22 | | | | 22 x 40; 2.55 | 25 x 30; 2.55 | 30 x 25; 2.55 | |
| 4700 | | 20 x 45; 2.43 | 22 x 40; 2.43 | 25 x 30; 2.43 | | | | 22 x 45; 2.97 | 25 x 35; 2.97 | | |
| 5600 | | | 22 x 45; 2.75 | 25 x 35; 2.75 | 30 x 25; 2.75 | | | | 25 x 40; 3.22 | 30 x 30; 3.22 | 35 x 25; 3.22 |
| 6800 | | | 22 x 50; 3.30 | 25 x 40; 3.30 | 30 x 30; 3.30 | 35 x 25; 3.30 | | | 25 x 45; 3.65 | 30 x 35; 3.65 | 35 x 30; 3.65 |
| 8200 | | | | 25 x 45; 3.60 | 30 x 35; 3.60 | | | | | 30 x 40; 4.04 | 35 x 35; 4.04 |
| 10000 | | | | 25 x 50; 4.05 | 30 x 40; 4.05 | 35 x 30; 4.05 | | | | 30 x 45; 4.48 | 35 x 40; 4.48 |
| 12000 | | | | | 30 x 45; 4.56 | 35 x 35; 4.56 | | | | | 35 x 45; 4.75 |
| 15000 | | | | | 30 x 50; 4.77 | 35 x 40; 4.77 | | | | | 35 x 50; 5.25 |

| Cap (μ F) | wv ϕ D | 80 | | | | | 100 | | | | |
|-------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 |
| 680 | | | | | | | 20 x 25; 1.15 | | | | |
| 820 | | | | | | | 20 x 30; 1.32 | 22 x 25; 1.32 | | | |
| 1000 | | 20 x 25; 1.24 | | | | | 20 x 30; 1.47 | | | | |
| 1200 | | 20 x 30; 1.44 | 22 x 25; 1.44 | | | | 20 x 35; 1.69 | 22 x 30; 1.69 | 25 x 25; 1.69 | | |
| 1500 | | 20 x 30; 1.59 | | | | | | 22 x 35; 1.98 | 25 x 30; 1.98 | | |
| 1800 | | 20 x 35; 1.79 | 22 x 30; 1.79 | 25 x 25; 1.79 | | | | 22 x 40; 2.23 | | 30 x 25; 2.23 | |
| 2200 | | 20 x 40; 2.03 | 22 x 35; 2.03 | | | | | | 25 x 40; 2.55 | 30 x 30; 2.55 | 35 x 25; 2.55 |
| 2700 | | | 22 x 40; 2.39 | | 30 x 25; 2.39 | | | | 25 x 45; 2.89 | 30 x 35; 2.89 | |
| 3300 | | | 22 x 50; 2.64 | | 30 x 30; 2.64 | 35 x 25; 2.64 | | | 25 x 50; 3.30 | 30 x 40; 3.30 | |
| 3900 | | | | 25 x 45; 2.97 | 30 x 30; 2.97 | | | | | 30 x 45; 3.67 | 35 x 35; 3.67 |
| 4700 | | | | 25 x 50; 3.38 | 30 x 35; 3.38 | 35 x 30; 3.38 | | | | 30 x 50; 3.80 | 35 x 40; 3.80 |
| 5600 | | | | | 30 x 40; 3.80 | 35 x 35; 3.80 | | | | | 35 x 45; 4.05 |
| 6800 | | | | | 30 x 50; 4.10 | 35 x 40; 4.10 | | | | | |
| 8200 | | | | | | 35 x 45; 4.30 | | | | | |

| Cap (μ F) | wv ϕ D | 160 | | | | | 180 | | | | |
|-------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 |
| 330 | | 20 x 25; 1.17 | | | | | 20 x 25; 1.20 | | | | |
| 390 | | 20 x 25; 1.28 | | | | | 20 x 30; 1.28 | 22 x 25; 1.28 | | | |
| 470 | | 20 x 30; 1.40 | 22 x 25; 1.40 | | | | 20 x 35; 1.38 | 22 x 30; 1.38 | | | |
| 560 | | 20 x 35; 1.50 | 22 x 30; 1.50 | | | | 20 x 40; 1.50 | 22 x 30; 1.50 | 25 x 25; 1.50 | | |
| 680 | | 20 x 40; 1.70 | 22 x 30; 1.70 | 25 x 25; 1.70 | | | 20 x 45; 1.70 | 22 x 35; 1.70 | 25 x 30; 1.70 | | |
| 820 | | | 22 x 35; 2.00 | 25 x 30; 2.00 | | | | 22 x 40; 2.00 | 25 x 35; 2.00 | 30 x 25; 2.00 | |
| 1000 | | | 22 x 40; 2.20 | 25 x 35; 2.20 | 30 x 25; 2.20 | | | | 25 x 40; 2.20 | 30 x 30; 2.20 | 35 x 25; 2.20 |
| 1200 | | | | 25 x 40; 2.30 | 30 x 30; 2.30 | 35 x 25; 2.30 | | | 25 x 45; 2.30 | 30 x 35; 2.30 | 35 x 30; 2.30 |
| 1500 | | | | 25 x 45; 2.50 | 30 x 35; 2.50 | 35 x 30; 2.50 | | | 25 x 50; 2.50 | 30 x 40; 2.50 | 35 x 30; 2.50 |
| 1800 | | | | | 30 x 40; 2.70 | 35 x 35; 2.70 | | | | 30 x 45; 2.70 | 35 x 35; 2.70 |
| 2200 | | | | | 30 x 45; 2.90 | 35 x 40; 2.90 | | | | 30 x 50; 2.90 | 35 x 40; 2.90 |
| 2700 | | | | | | 35 x 45; 3.10 | | | | | 35 x 50; 3.10 |

| Cap (μ F) | wv ϕ D | 200 | | | | | 220 | | | | |
|-------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 | ϕ 20 | ϕ 22 | ϕ 25 | ϕ 30 | ϕ 35 |
| 220 | | | | | | | 20 x 25; 0.98 | | | | |
| 270 | | 20 x 25; 0.99 | | | | | 20 x 30; 1.08 | 22 x 25; 1.08 | | | |
| 330 | | 20 x 30; 1.20 | 22 x 25; 1.20 | | | | 20 x 30; 1.26 | 22 x 25; 1.26 | | | |
| 390 | | 20 x 30; 1.34 | 22 x 25; 1.34 | | | | 20 x 35; 1.34 | 22 x 30; 1.34 | 25 x 25; 1.34 | | |
| 470 | | 20 x 35; 1.48 | 22 x 30; 1.48 | 25 x 25; 1.48 | | | 20 x 40; 1.48 | 22 x 35; 1.48 | 25 x 25; 1.48 | | |
| 560 | | 20 x 40; 1.60 | 22 x 35; 1.60 | 25 x 25; 1.60 | | | 20 x 45; 1.61 | 22 x 40; 1.61 | 25 x 30; 1.61 | 30 x 25; 1.61 | |
| 680 | | | 22 x 40; 1.75 | 25 x 30; 1.75 | 30 x 25; 1.75 | | | 22 x 45; 1.78 | 25 x 35; 1.78 | 30 x 25; 1.78 | |
| 820 | | | 22 x 45; 2.04 | 25 x 35; 2.04 | 30 x 25; 2.04 | | | 22 x 50; 1.93 | 25 x 40; 1.93 | 30 x 30; 1.93 | 35 x 25; 1.93 |
| 1000 | | | | 25 x 45; 2.30 | 30 x 30; 2.30 | | | | 25 x 50; 2.33 | 30 x 35; 2.33 | 35 x 30; 2.33 |
| 1200 | | | | 25 x 50; 2.65 | 30 x 35; 2.65 | 35 x 30; 2.65 | | | | 30 x 40; 2.50 | 35 x 35; 2.50 |
| 1500 | | | | | 30 x 45; 2.80 | 35 x 35; 2.80 | | | | 30 x 50; 2.76 | 35 x 40; 2.76 |
| 1800 | | | | | 30 x 50; 3.08 | 35 x 40; 3.08 | | | | | 35 x 45; 3.11 |
| 2200 | | | | | | 35 x 45; 3.48 | | | | | |

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size ϕ DXL(mm)