

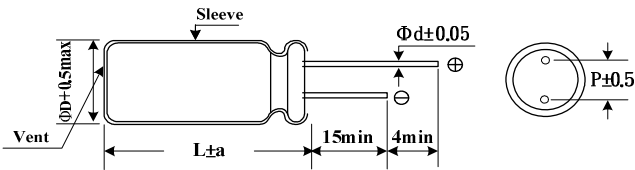
- Endurance: 125°C 2000~5000hrs
- Recommended Applications :Applicable for Electronic Ballast,Lighting Ballast
- Corresponding product to RoHS



SPECIFICATIONS

| Item | Characteristics | |
|---|--|---|
| Category Temperature Range | -40 ~ +125°C | -25 ~ +125°C |
| Rated Voltage Range | 10~63VDC | 160~450VDC |
| Rated Capacitance Range | 47~ 4700 µF | 1~150 µF |
| Capacitance Tolerance | ± 20 % (120Hz , 20°C) | |
| Leakage Current (20°C) | I=0.01CV or 3(µA)whichever is greater. | |
| | I=0.1CV+40 uA (CV ≤ 1000) I=0.04CV+100 uA (CV > 1000) | |
| (After rated voltage applied for 2 minutes) I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) | | |
| Dissipation Factor(MAX) (tan δ) (120Hz ,20°C) | WV | 10 16 25 35 50 63 160~250 350~450 |
| | tan δ | 0.19 0.16 0.14 0.12 0.14 0.14 0.20 0.24 |
| When nominal capacitance is over 1000uF,tan δ shall be added 0.02 to the listed value with increase of every 1000uF. Down Size tan δ added 0.03. | | |
| Low Temperature Stability Impedance Ratio (MAX) | WV | 10 16 25 35 50 63 160~250 350~450 |
| | Z(120Hz) Z-25°C / Z+20°C | 3 2 2 2 2 2 3 6 |
| | Z-40°C / Z+20°C | 6 4 4 4 4 3 — — |
| Endurance | After applying rated voltage for 2000~5000hours at 125°C,the capacitors shall meet the following requirements. | |
| | Rated Voltage Range | 10~63VDC 160~450VDC |
| | Capacitance Change | Within ± 30 % of initial value Within ± 20 % of initial value |
| | Dissipation Factor | ≤ 300% of initial specified value ≤ 200% of the initial specified value |
| | Leakage Current | ≤ initial specified value or less ≤ initial specified value |
| | DΦ | 8 Φ 10 Φ ≥ 13 Φ |
| Life | 2000Hrs 3000Hrs 5000Hrs | 2000Hrs |
| Shelf Life | After leaving capacitors under no load at 125°C for 1000 hours. | |
| | Rated Voltage Range | 10~63VDC 160~450VDC |
| | Capacitance Change | Within ± 30 % of initial value Within ± 20 % of initial value |
| | Dissipation Factor | ≤ 300% of initial specified value ≤ 200% of the initial specified value |
| | Leakage Current | ≤ 500% of initial specified value ≤ 500% of the initial specified value |

Dimensions [mm]



| | | | | | |
|----|-----|-----|-----|-----|-----|
| ΦD | 8 | 10 | 13 | 16 | 18 |
| P | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

Multiplier for Ripple Current

| Freq. (Hz) | | 120 | 1K | 10K | 50K~100K |
|------------|------------------|------|------|------|----------|
| 10~63WV | CAP ≤ 10 | 0.40 | 0.75 | 0.90 | 1.00 |
| | 10 < CAP ≤ 100 | 0.50 | 0.85 | 0.95 | 1.00 |
| | 100 < CAP ≤ 1000 | 0.60 | 0.88 | 0.96 | 1.00 |
| | 1000 < CAP | 0.75 | 0.90 | 0.98 | 1.00 |
| 160~450WV | CAP ≤ 33 | 1.00 | 1.50 | 1.75 | 1.80 |
| | CAP ≥ 47 | 1.00 | 1.30 | 1.40 | 1.50 |

■ STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | tan δ | Ripple current (mA/rms125°C) (100KHz) |
|-----------------------------------|----------|---------------------|-------|---------------------------------------|
| 10(13) | 220 | 8x11 | 0.19 | 340 |
| | 330 | 10x12.5 | 0.19 | 500 |
| | 470 | 10x16 | 0.19 | 630 |
| | 1000 | 10x20 | 0.19 | 770 |
| | 2200 | 13x25 | 0.21 | 1250 |
| | 3300 | 16x25 | 0.23 | 1380 |
| 16(20) | 4700 | 16x32 | 0.26 | 1450 |
| | 220 | 8x11 | 0.16 | 340 |
| | 330 | 10x12.5 | 0.16 | 500 |
| | 470 | 10x20 | 0.16 | 770 |
| | 1000 | 13x20 | 0.16 | 920 |
| | 2200 | 16x25 | 0.19 | 1380 |
| 25(32) | 3300 | 16x32 | 0.21 | 1450 |
| | 4700 | 16x32 | 0.23 | 1720 |
| | 100 | 8x11 | 0.14 | 340 |
| | 220 | 10x12.5 | 0.14 | 500 |
| | 330 | 10x16 | 0.14 | 630 |
| | 470 | 10x20 | 0.14 | 770 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | tan δ | Ripple current (mA/rms125°C) (100KHz) |
|-----------------------------------|----------|---------------------|-------|---------------------------------------|
| 25(32) | 1000 | 13x25 | 0.14 | 1250 |
| | 2200 | 16x32 | 0.16 | 1450 |
| 35(44) | 100 | 10x12.5 | 0.12 | 340 |
| | 220 | 10x16 | 0.12 | 500 |
| | 330 | 10x20 | 0.12 | 770 |
| | 470 | 13x20 | 0.12 | 920 |
| | 1000 | 16x25 | 0.12 | 1380 |
| 50(63) | 47 | 8x11 | 0.14 | 245 |
| | 100 | 10x12.5 | 0.14 | 415 |
| | 220 | 10x20 | 0.14 | 491 |
| | 330 | 13x20 | 0.14 | 665 |
| | 470 | 13x25 | 0.14 | 995 |
| | 1000 | 16x32 | 0.14 | 1280 |
| 63(79) | 47 | 8x11 | 0.14 | 245 |
| | 100 | 10x15 | 0.14 | 455 |
| | 220 | 13x20 | 0.14 | 665 |
| | 330 | 13x25 | 0.14 | 995 |
| | 470 | 16x25 | 0.14 | 1000 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | tan δ | Ripple current (mA/rms125°C) (120Hz) |
|-----------------------------------|----------|---------------------|-------|--------------------------------------|
| 160(200) | 3.3 | 8x11 | 0.20 | 28 |
| | 4.7 | 10x12.5 | 0.20 | 40 |
| | 10 | 10x16 | 0.20 | 60 |
| | 22 | 10 x 20 | 0.20 | 115 |
| | 33 | 10 x 25 | 0.20 | 154 |
| | 47 | 13 x 20 | 0.20 | 187 |
| | 68 | 13 x 25 | 0.20 | 245 |
| | 100 | 16 x 25 | 0.20 | 329 |
| | 150 | 16 x 32 | 0.20 | 434 |
| 200(250) | 3.3 | 8x11 | 0.20 | 28 |
| | 4.7 | 10x12.5 | 0.20 | 40 |
| | 10 | 10 x 20 | 0.20 | 78 |
| | 22 | 10 x 25 | 0.20 | 126 |
| | 33 | 13 x 20 | 0.20 | 157 |
| | 47 | 13 x 25 | 0.20 | 204 |
| | 68 | 16 x 20 | 0.20 | 250 |
| 250(300) | 100 | 16 x 25 | 0.20 | 329 |
| | 2.2 | 8x11 | 0.20 | 28 |
| | 3.3 | 10x12.5 | 0.20 | 32 |
| | 4.7 | 10x16 | 0.20 | 45 |
| | 10 | 10 x 20 | 0.20 | 78 |
| | 22 | 13 x 20 | 0.20 | 128 |
| | 33 | 13 x 25 | 0.20 | 171 |
| 250(300) | 47 | 16 x 25 | 0.20 | 225 |
| | 68 | 16 x 32 | 0.20 | 292 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | tan δ | Ripple current (mA/rms125°C) (120Hz) |
|-----------------------------------|----------|---------------------|-------|--------------------------------------|
| 350(400) | 1.0 | 8x11 | 0.24 | 25 |
| | 2.2 | 10x12.5 | 0.24 | 32 |
| | 3.3 | 10x16 | 0.24 | 45 |
| | 4.7 | 10 x 20 | 0.24 | 53 |
| | 10 | 10 x 25 | 0.24 | 85 |
| | 22 | 13 x 25 | 0.24 | 139 |
| | 33 | 16 x 25 | 0.24 | 189 |
| | 47 | 16 x 32 | 0.24 | 243 |
| 400(450) | 1.0 | 10x12.5 | 0.24 | 28 |
| | 2.2 | 10x16 | 0.24 | 35 |
| | 3.3 | 10x16 | 0.24 | 42 |
| | 4.7 | 10 x 20 | 0.24 | 53 |
| | 10 | 10 x 25 | 0.24 | 86 |
| | 22 | 13 x 30 | 0.24 | 142 |
| | 33 | 16 x 25 | 0.24 | 189 |
| 450(500) | 47 | 16 x 32 | 0.24 | 243 |
| | 1.0 | 8x16 | 0.24 | 25 |
| | 2.2 | 10x16 | 0.24 | 32 |
| | 3.3 | 10x20 | 0.24 | 40 |
| | 4.7 | 10 x 25 | 0.24 | 58 |
| | 10 | 13 x 20 | 0.24 | 86 |
| | 22 | 16 x 25 | 0.24 | 154 |
| 450(500) | 33 | 16 x 32 | 0.24 | 203 |