

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS



New

YE

Chip type, High Capacitance & High Ripple Current Series

- Large capacitance compared with YM series
- High temperature range, for 125°C use
- Complied to the RoHS directive

YM → YE
Downsized

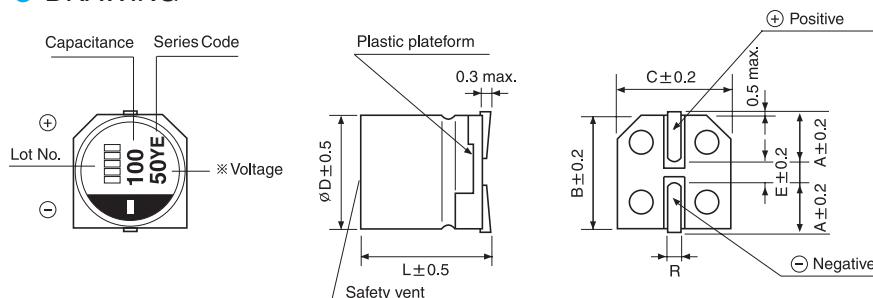


HYBRID TYPES

| Item | Characteristics | | | | |
|--|--|---------------------------------------|------|--|--|
| Operating temperature range | -55 ~ +125°C | | | | |
| Leakage current max. | $I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes) | | | | |
| Capacitance tolerance | $\pm 20\%$ at 120Hz, 20°C | | | | |
| Dissipation factor max. (at 120Hz, 20°C) | WV | 25 | 35 | | |
| | $\tan\delta$ | 0.14 | 0.12 | | |
| Low temperature characteristics (Impedance ratio at 100kHz) | $Z(-25°C) / Z(+20°C) \leq 1.5$ $Z(-55°C) / Z(+20°C) \leq 2.0$ | | | | |
| Load life | After an application of DC bias voltage plus the rated AC ripple current for 4000 hours at 125°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage. | | | | |
| | Capacitance change | Within $\pm 30\%$ of initial value | | | |
| | $\tan\delta$ | Less than 200% of the specified value | | | |
| | ESR | Less than 200% of the specified value | | | |
| | Leakage current | Less than specified value | | | |
| Shelf life(at 125°C) | After 1000 hours no load test, leakage current, capacitance and $\tan\delta$ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4 | | | | |
| Resistance to soldering heat | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 10 seconds. | | | | |
| | Leakage current | Less than specified value | | | |
| | Capacitance change | Within $\pm 10\%$ of initial value | | | |
| | $\tan\delta$ | Less than specified value | | | |

Unit : mm

DRAWING



| ØD × L | A | B | C | E | R |
|---------|-----|------|------|-----|---------|
| 6.3×5.8 | 2.4 | 6.6 | 6.6 | 2.2 | 0.5~0.8 |
| 6.3×7.7 | 2.4 | 6.6 | 6.6 | 2.2 | 0.5~0.8 |
| 8×10 | 2.9 | 8.3 | 8.3 | 3.1 | 0.8~1.1 |
| 10×10 | 3.2 | 10.3 | 10.3 | 4.5 | 0.8~1.1 |
| 10×12.5 | 3.2 | 10.3 | 10.3 | 4.5 | 0.8~1.1 |

DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

| μF | WV | 25 | | | 35 | | |
|---------|---------|----|------|---------|---------|---------|------|
| | | 68 | 100 | 120 | 6.3×5.8 | 6.3×7.7 | 8×10 |
| 68 | | | | | 6.3×5.8 | 60 | 1200 |
| 100 | 6.3×5.8 | 50 | 1300 | | | | |
| 120 | | | | 6.3×7.7 | 35 | 1700 | |
| 180 | 6.3×7.7 | 30 | 1800 | | | | |
| 220 | | | | 8×10 | 27 | 2000 | |
| 330 | 8×10 | 27 | 2000 | | | | |
| 390 | | | | 10×10 | 20 | 2800 | |
| 470 | | | | 10×12.5 | 16 | 3500 | |
| 560 | 10×10 | 20 | 2800 | | | | |
| 820 | 10×12.5 | 16 | 3500 | | | | |

← Ripple current (mA rms) at 125°C, 100kHz

Case size ØD × L (mm)

↑ ESR (mΩ) at 20°C, 100kHz

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

| Frequency | 120Hz | 1kHz | 10kHz | 100kHz |
|-------------|-------|------|-------|--------|
| Coefficient | 0.10 | 0.40 | 0.70 | 1.00 |



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