

CTV series

- Chip type with 8Φ~16Φ, 125°C, 2000 hours~5000 hours, long life product.
- Designed For automobile modules and other high temperature applications.
- Peak acceleration: 30G
- RoHS Compliance.
- 8Φ~16ΦV-Chip 型, 125°C, 2000小時~5000小時 長壽命產品。
- 專為汽車模塊和其它高溫應用設計。



SPECIFICATIONS

| Items 項目 | Characteristics 特性 | | | | |
|--|--|---|---------------------------------|------|------|
| Capacitance Tolerance 靜電容量誤差 | ± 20%(120Hz,20°C) | | | | |
| Operating Temperature Range 適用溫度範圍 | -40 ~ +125°C | | | | |
| Rated Voltage Range 額定電壓範圍 | 16~50VDC | | | | |
| Capacitance Range 靜電容量範圍 | 47 ~ 2200μF | | | | |
| Leakage Current 洩漏電流 | $I \leq 0.01CV$ or $3(\mu A)$, which is greater. (After 2 minutes application of DC rated voltage, at 20°C) | | | | |
| Dissipation Factor 散逸因素($\tan \delta$) | Measurement Frequency: 120Hz. Temperature: 20°C | | | | |
| | Rated Voltage(V) | 16 | 25 | 35 | 50 |
| | $\tan \delta$ (Max) | 0.20 | 0.20 | 0.14 | 0.14 |
| Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值) | Measurement Frequency: 120Hz. | | | | |
| | Rated Voltage(V) | 16 | 25 | 35 | 50 |
| | Z(-25°C)/Z(20°C) | 5 | 2 | 2 | 2 |
| | Z(-40°C)/Z(20°C) | 8 | 4 | 3 | 3 |
| Load Life 負荷壽命 | $\Phi 8\sim\Phi 10$:2000hours; $\Phi 12.5$:3000hours ; $\Phi 16$: 5000hours with application of rated voltage at 125°C | | | | |
| | Capacitance Change | Within ±30% of Initial Value | | | |
| | $\tan \delta$ | 300% or less of Initial Specified Value | | | |
| | Leakage Current | Initial Specified Value or less | | | |
| Shelf Life 放置壽命 | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 125°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4. | | | | |
| | Capacitance Change | Within ±30% of Initial Value | | | |
| | $\tan \delta$ | 300% or less of Initial Specified Value | | | |
| | Leakage Current | Initial Specified Value or less | | | |
| Resistance to Soldering Heat 焊錫耐熱性 | The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature they meet the characteristics requirements listed at right. | Capacitance Change | Within ± 10% of Initial Value | | |
| | | $\tan \delta$ | Initial Specified Value | | |
| | | Leakage Current | Initial Specified Value or less | | |
| Standards 參照標準 | IEC 60384-4 (JIS C 5101-4) | | | | |

Frequency Coefficient of Permissible Ripple Current

| Frequency (Hz) | 100 ≤ F < 1K | 1K ≤ F < 10K | 10K ≤ F < 100K | 100K ≤ F |
|------------------|--------------|--------------|----------------|----------|
| Capacitance (μF) | | | | |
| 全系列 | 0.60 | 0.85 | 0.93 | 1.00 |

CTV series

DIMENSIONS(mm)

Chip Type Fig.1 $\Phi D=8\sim 10\text{mm}$

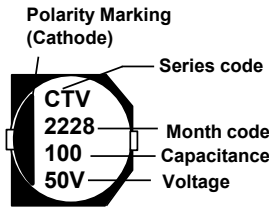
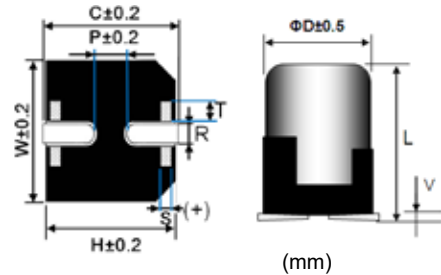
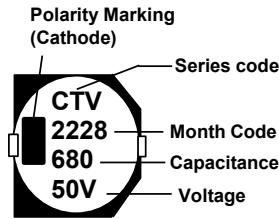


Fig.2 $\Phi D\geq 12.5\text{mm}$



| Size | ΦD | L | W | H | C | R | P | S | T | Vmax |
|-------------|----------|------------|------|------|------|---------|-----|-----|-----|------|
| 8 × 10.5 | 8.0 | 10.5 ± 0.5 | 8.3 | 8.3 | 9.0 | 1.0~1.4 | 3.2 | 0.7 | 1.3 | 1.5 |
| 10 × 10.5 | 10.0 | 10.5 ± 0.5 | 10.3 | 10.3 | 11.0 | 1.0~1.4 | 4.5 | 0.7 | 1.3 | 1.5 |
| 12.5 × 13.5 | 12.5 | 13.5 ± 1.0 | 13.5 | 13.5 | 14.2 | 1.1~1.4 | 4.5 | 2.2 | 2.4 | 1.5 |
| 16 × 16.5 | 16.0 | 16.5 ± 1.0 | 17.0 | 17.0 | 18.0 | 1.7~2.1 | 6.4 | 3.0 | 2.0 | 1.5 |

STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 125°C 100KHz, ESR(Ω max) at 20°C 100KHz.

| Cap (μF) | V | 16.0 | | | 25 | | | 35 | | | 50 | | |
|--------------------|-----------|------|-------|------|-----------|-------|------|-----------|-------|------|-----------|-------|------|
| | | Item | D x L | R.C. | ESR | D x L | R.C. | ESR | D x L | R.C. | ESR | D x L | R.C. |
| 47 | | | | | | | | | | | | | |
| 100 | | | | | | | | 8x10.5 | 300 | 0.18 | 8x10.5 | 250 | 0.5 |
| 160 | | | | | | | | 8x10.5 | 300 | 0.18 | 10x10.5 | 350 | 0.30 |
| 220 | | | | | 8x10.5 | 300 | 0.18 | 10x10.5 | 500 | 0.11 | 12.5x13.5 | 700 | 0.15 |
| 270 | | | | | 8x10.5 | 300 | 0.18 | | | | | | |
| 300 | | | | | | | | 10x10.5 | 500 | 0.11 | | | |
| 330 | 8x10.5 | | 300 | 0.18 | 10x10.5 | 500 | 0.11 | 12.5x13.5 | 1200 | 0.08 | | | |
| 390 | 8x10.5 | | 300 | 0.18 | | | | | | | | | |
| 470 | 10x10.5 | | 500 | 0.11 | 10x10.5 | 500 | 0.11 | 12.5x13.5 | 1200 | 0.08 | 16x16.5 | 1000 | 0.09 |
| 620 | | | | | | | | 12.5x13.5 | 1200 | 0.08 | | | |
| 680 | 10x10.5 | | 500 | 0.11 | 12.5x13.5 | 1200 | 0.08 | 16x16.5 | 1800 | 0.05 | | | |
| 910 | | | | | 12.5x13.5 | 1200 | 0.08 | | | | | | |
| 1000 | 12.5x13.5 | | 1200 | 0.08 | 16x16.5 | 1800 | 0.05 | | | | | | |
| 1500 | 12.5x13.5 | | 1200 | 0.08 | 16x16.5 | 1800 | 0.05 | | | | | | |
| 2200 | 16x16.5 | | 1800 | 0.05 | | | | | | | | | |

CTV