

GCA411C Series Solid Electrolytic Tantalum Capacitor

Executive Standard: QZJ840628 and Q/MM53-93

Characteristics and Application

- Metal case encapsulation, Hermitically-sealed, Cylindrical, Radial-leaded, With Insulation Sleeve, Heteropolarity;
- Excellent and stable in electrical characteristics, High reliability, Low DF&DCL, Small in size, Requirements of routine tests are higher than the technical stipulations of seven-special parts QZJ840628;
- Applicable to Weapons, Electronics, Telecommunications, such Electrical Equipments with DC&Impulse Circuit for Military and Civil use.
- Ordering information: GCA411C-226K063; 300pcs



Main Features

- Operating Temperature Range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ ($> 85^{\circ}\text{C}$ with rated voltage derating)
- Rated Voltage, Derating Voltage, Nominal Capacitance: See table 1
- Capacitance tolerance: K: $\pm 10\%$; M: $\pm 20\%$
- DC leakage At $+25^{\circ}\text{C}$: $I_0 \leq 0.01 C_R U_R$ (μA) or $0.5 \mu\text{A}$ (which is greater)
- Dissipation Factors ($\text{tg}\delta$) at 25°C : Not exceed the parameter in table 2
- Temperature Characteristics: Not exceed the parameter in table 2
- Dimensions and Max Weight: See figure 1 and table 1

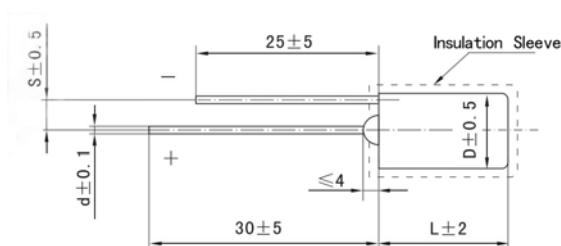


Figure 1

Table1 Rated Voltage, Derating Voltage, Nominal Capacitance, Dimensions and Max Weight

| Rated Voltage $U_R(V)$ | | | | | 6.3 | 10 | 16 | 25 | 32 | 40 | 63 | |
|---------------------------|-----|----|-----|----------------|-----------------------------------|------|-----|-----|-----|-----|------|------|
| Derating Voltage $U_C(V)$ | | | | | 4 | 6.3 | 10 | 16 | 20 | 25 | 40 | |
| Dimensions (mm) | | | | Max Weight (g) | Nominal Capacitance $C_R (\mu F)$ | | | | | | | |
| Case Code | D | L | d | | | | | | | | | |
| 1 | 3.2 | 8 | 0.4 | 0.9 | 0.7 | 6.8 | 3.3 | 2.2 | 1.5 | 1.0 | 0.68 | 0.22 |
| | | | | | | 10 | 4.7 | 3.3 | 2.2 | 1.5 | 1.0 | 0.33 |
| 2 | 5 | 12 | 0.6 | 1.8 | 2.5 | 6.8 | 3.3 | 2.2 | 1.5 | 1.0 | 0.68 | 0.22 |
| | | | | | | 10 | 4.7 | 3.3 | 2.2 | 1.5 | 1.0 | 0.33 |
| | | | | | | 15 | 10 | 4.7 | 3.3 | 2.2 | 1.5 | 0.68 |
| | | | | | | 22 | 15 | 6.8 | 4.7 | 3.3 | 2.2 | 1.0 |
| | | | | | | 33 | 22 | 10 | 6.8 | 4.7 | 3.3 | 1.5 |
| 47 | 33 | 15 | 10 | 6.8 | 4.7 | 2.2 | | | | | | |
| 68 | 47 | 22 | 15 | 10 | 6.8 | 3.3 | | | | | | |
| 3 | 6 | 14 | 0.6 | 2.3 | 3.5 | 100 | 68 | 47 | 22 | 15 | 10 | 4.7 |
| | | | | | | 100 | 68 | 33 | 15 | 10 | 4.7 | |
| 4 | 8 | 14 | 0.8 | 3.3 | 6.0 | 150 | 150 | 100 | 47 | 22 | 22 | 6.8 |
| | | | | | | 220 | 150 | 100 | 68 | 33 | 33 | 10 |
| 5 | 8 | 22 | 0.8 | 3.3 | 10.0 | 330 | 220 | 150 | 100 | 47 | 47 | 15 |
| | | | | | | 470 | 330 | 150 | 100 | 68 | 47 | 22 |
| 6 | 10 | 22 | 0.8 | 4.3 | 16 | 680 | 470 | 220 | 150 | 100 | 68 | 33 |
| | | | | | | 1000 | 680 | 330 | 220 | 150 | 100 | 100 |

P.S. With insulation sleeve, D could be 0.3mm more at most, and L could be 1mm more at most.

Table 2 Temperature Characteristics

| Nominal Capacitance $C_R (\mu F)$ | Range of Capacitance (%) | | | Max | | | | | |
|-----------------------------------|--------------------------|------|-------|----------------|------|------|-------|------------------|-------------------|
| | | | | $tg\delta(\%)$ | | | | DCL (μA) | |
| | -55°C | 85°C | 125°C | -55°C | 25°C | 85°C | 125°C | 85°C | 125°C |
| ≤1 | ±8 | ±8 | ±10 | 3 | | | | 8 I _o | 10 I _o |
| 1.5~68 | | | | 5 | | | | | |
| 100~330 | | | | 6 | | | | | |
| 470~1000 | | | | 8 | | | | | |

P.S. : 1) Capacitance and DF measured at :100Hz, $U_{-} = 2.2^{+1.0}V$, $U_{\sim} = 1.0^{+0.5}V$.

2) When testing the DCL of Capacitors at 125°C, only derating voltage applied.