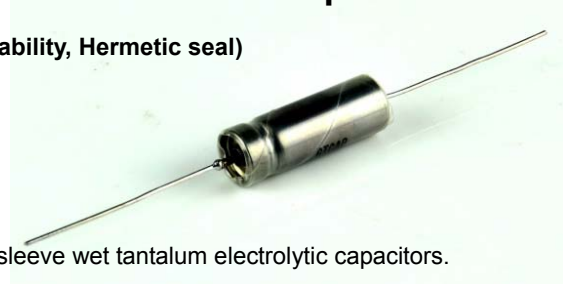




CAK38 Military Standard Wet Tantalum Capacitor

(All tantalum case, High reliability, Hermetic seal)



1, Brief Introduction and Feature

- 1) CAK38, All tantalum case ,hermetic sealed, with insulation sleeve wet tantalum electrolytic capacitors.
- 2) With polar, axial leads through hole, in stable and excellent performances.
- 3) High reliability.long life,high ripple current (415mA~2360mA)
- 4) Can cross MIL-C-C39006/22D CLR79
- 5) Widely used in electronic equipment for military applications such as telecommunication, aerospace and aviation.

Meet standard: GJB733A-96,QJ/PWV91-2000

2, General Characteristics

Operating Temperature Range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ ($>125^{\circ}\text{C}$ with voltage derating);

Capacitance range: $1.7\mu\text{F} \sim 1200\mu\text{F}$

Capacitance Tolerance: $K = \pm 10\%$, $M = \pm 20\%$

Voltage: $6\text{V} \sim 125\text{V}$

Reverse voltage capability: 3V

Case sizes, Dimensions and Max. weight: As shown in Table 1 and figure 1.

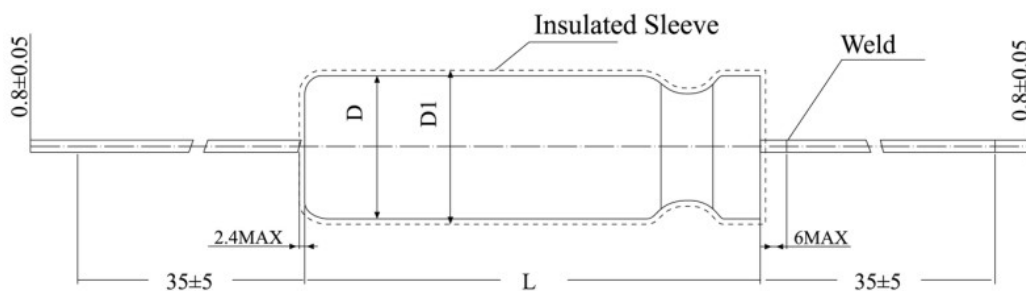
Ripple Voltage: see table 2

Impedance at -55°C : please see Table 2

Max DCL see table 2

Nominal Capacitance, Rated voltage, Voltage Derating: See table 2

3, Drawing , Case Dimension and Max. weight



Outline and Dimensions

Table 1

| Code | Max. weight (g) | Without sleeve | | With sleeve | |
|------|-----------------|------------------|------------------|-------------------|-------------------|
| | | $D \pm 0.4$ (mm) | $L \pm 0.8$ (mm) | $D1 \pm 0.4$ (mm) | $L1 \pm 0.8$ (mm) |
| T1 | 3 | 4.78 | 11.51 | 5.58 | 14.31 |
| T2 | 7 | 7.14 | 16.28 | 7.94 | 19.08 |
| T3 | 12 | 9.52 | 19.46 | 10.32 | 22.26 |
| T4 | 18 | 9.52 | 26.97 | 10.32 | 29.77 |



4, Nominal Capacitance, Rated voltage, Voltage Derating, Case size and General Characteristics

Table 2

| Rated Voltage (V) | Voltage Derating (V) | Case size | Capacitance (μF) | DCL (μA)Max | | IMP (Ω) -55℃ 100Hz | Capacitance change Max (%) | | | ESR (Ω) 100Hz 25℃ | AC ripple 85℃ 40kHz (mA) |
|-------------------|----------------------|-----------|------------------|-------------|-------------|--------------------------|----------------------------|-----|------|-------------------------|-----------------------------------|
| | | | | 25℃ | 85℃ 125℃ | | 25℃ | 85℃ | 125℃ | | |
| | | | | | | | | | | | |
| 15 | 10 | T1 | 150 | 2 | 12 | 30 | -55 | +30 | +40 | 1.4 | 1400 |
| | | T2 | 680 | 6 | 36 | 13 | -70 | +30 | +50 | 1.1 | 2200 |
| | | T3 | 1500 | 12 | 70 | 12 | -80 | +40 | +60 | 0.9 | 2700 |
| | | T4 | 2200 | 20 | 120 | 7 | -85 | +40 | +60 | 0.7 | 3400 |
| 25 | 15 | T1 | 120 | 1 | 5 | 25 | -42 | +16 | +24 | 1.3 | 1250 |
| | | T2 | 560 | 2 | 10 | 12 | -65 | +24 | +30 | 1.0 | 2100 |
| | | T3 | 1200 | 5 | 20 | 7 | -70 | +24 | +36 | 0.8 | 2600 |
| | | T4 | 1800 | 6 | 25 | 7 | -72 | +24 | +40 | 0.5 | 3100 |
| 30 | 20 | T1 | 100 | 1 | 5 | 30 | -38 | +16 | +24 | 1.6 | 1200 |
| | | T2 | 470 | 2 | 10 | 18 | -65 | +20 | +36 | 1.1 | 1800 |
| | | T3 | 100 | 7 | 25 | 12 | -70 | +20 | +36 | 1.0 | 2500 |
| | | T4 | 1500 | 12 | 35 | 8 | -72 | +20 | +40 | 0.9 | 3000 |
| 50 | 30 | T1 | 68 | 1 | 5 | 35 | -25 | +12 | +30 | 1.8 | 1050 |
| | | T2 | 220 | 2 | 10 | 18 | -50 | +12 | +30 | 1.2 | 1800 |
| | | T3 | 470 | 3 | 25 | 14 | -45 | +12 | +30 | 1.1 | 2100 |
| | | T4 | 680 | 5 | 40 | 9 | -58 | +20 | +40 | 1.0 | 2750 |
| 60 | 40 | T1 | 47 | 1 | 5 | 45 | -25 | +10 | +24 | 2.3 | 1050 |
| | | T2 | 150 | 2 | 10 | 21 | -40 | +10 | +24 | 1.4 | 1800 |
| | | T3 | 390 | 3 | 25 | 15 | -45 | +10 | +26 | 1.2 | 2100 |
| | | T4 | 560 | 5 | 40 | 11 | -58 | +10 | +24 | 1.1 | 2750 |
| 75 | 50 | T1 | 33 | 1 | 5 | 55 | -25 | +9 | +18 | 2.8 | 1050 |
| | | T2 | 110 | 2 | 10 | 35 | -35 | +10 | +20 | 1.6 | 1650 |
| | | T3 | 330 | 3 | 30 | 21 | -45 | +10 | +20 | 1.3 | 2100 |
| | | T4 | 470 | 5 | 50 | 13 | -50 | +10 | +20 | 1.2 | 2750 |
| 100 | 65 | T1 | 15 | 1 | 5 | 120 | -18 | +3 | +10 | 4.0 | 1050 |
| | | T2 | 68 | 2 | 10 | 40 | -30 | +4 | +12 | 2.4 | 1650 |
| | | T3 | 150 | 3 | 25 | 28 | -35 | +6 | +12 | 1.9 | 2100 |
| | | T4 | 220 | 5 | 50 | 21 | -40 | +6 | +12 | 1.5 | 2750 |
| 125 | 85 | T1 | 10 | 1 | 5 | 180 | -15 | +3 | +10 | 6.0 | 1050 |
| | | T2 | 47 | 2 | 10 | 55 | -25 | +5 | +12 | 2.8 | 1650 |
| | | T3 | 100 | 3 | 25 | 55 | -35 | +5 | +12 | 2.1 | 2100 |
| | | T4 | 150 | 5 | 50 | 21 | -35 | +6 | +12 | 1.9 | 2750 |

**5,How to order**

(GTCAP38 686 K 050)

| GT | CAK38 | 686 | K | 050 | T1 |
|------------|--|---|------------------|---|-------------|
| Brand Name | Type | Capacitance | Tolerance | DC voltage | Case code |
| Green Tech | Military Wet Electrolytic Tantalum Capacitor | 686: 68×10^6 (pF) This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. | K=±10% M=±20% | 15V=015 25V=025 30V=030 50V=050 60V=060 100V=100 125V=125 | See table 1 |

Notes:

- 1, Tantalum capacitors can't be measured by multimeter (Easily cause irreversible damage and lead to reject)
- 2, Capacitance, DF measure frequency: 100Hz, DC offset voltage $U.=2.2^{0}_{-1.0}V$, Exchange offset voltage $U.=1.0^{0}_{-0.5}V$ (effective value), measure method is by series equivalent circuit.
- 3, Measure the leakage current above 125°C, please use derated voltage. DLC read within 5 minute.
- 4, Special size and big capacitance products, please negotiate with us