# CA Series solid Electrolytic Tantalum Capacitor

## Brief Introduction

- Metal case encapsulation, Hermitically-sealed, Tubular, Axial-leaded, With Insulation Sleeve, Heteropolarity;
- Stable in Electrical Characteristics,High Reliability,Long life-span, Low DF&DCL;
- Applicable to DC&Pulse current of communications-equipments and instruments;
- Executive Standard: GB9583-88;

## Features

- Operaing Temperature Range:-55℃~+125℃ ( >85℃ with rated voltage derating ) ;
- Capacitance tolerance:K : ±10%; M: ±20%;
- DC leakage At+25℃: $I_0 \leq 0.01 C_R U_R$ (μA) or 0.5μA ( Choose the greater one ) ;
- Dimensions & Max Weight: See Table 1 & Figure1;
- Temperature Characteristics: Not exceed the parameter in figure2;
- Rated Voltage, Derating Voltage, Nominal Capacitance: See figure 3;

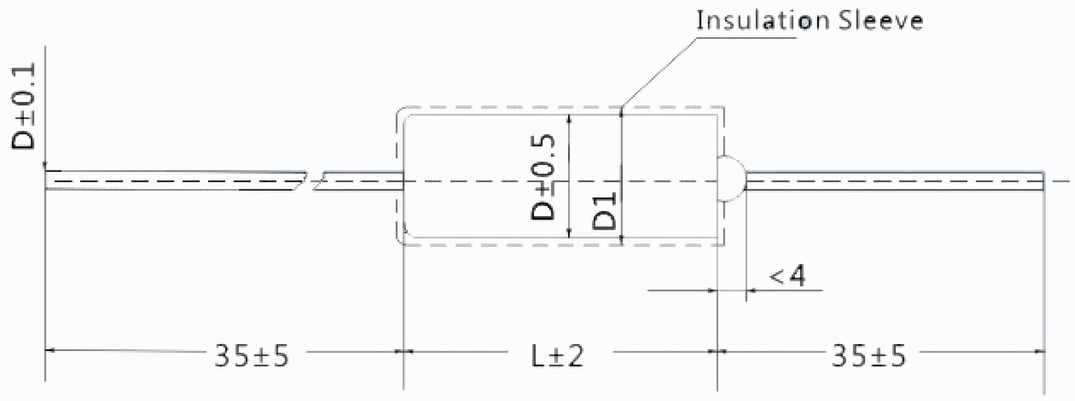


Table 1 Dimensions

| Case Code | Max Weight | With no Plastic Insulation Sleeve | | With Plastic Insulation Sleeve | | d±0.1 (mm) |
|---|---|---|---|---|---|---|
| | | D±0.5 (mm) | L±2 (mm) | D1max (mm) | Lmax (mm) | |
| 1 | 0.7 | 3.2 | 8 | 4.0 | 10 | 0.4 |
| 2 | 2.3 | 5 | 12 | 5.8 | 14 | 0.6 |
| 3 | 3.0 | 6 | 14 | 6.8 | 16 | 0.6 |
| 4 | 4.0 | 8 | 14 | 8.8 | 16 | 0.8 |
| 5 | 8.0 | 8 | 22 | 8.8 | 24 | 0.8 |
| 6 | 14.0 | 10 | 22 | 10.8 | 24 | 0.8 |

Table2 Temperature Characteristics

| Nominal Capacitance $C_R$ ( μF) | Max | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Range of Capacitance | | | Max | | | | DCL | |
| | -55 ℃ | 85 ℃ | 125 ℃ | -55 ℃ | 25 ℃ | 85 ℃ | 125 ℃ | 85 ℃ | 125 ℃ |
| ≤1.0 | ±8 | ±8 | ±10 | 3 | 3 | 3 | | $8I_0$ | $10I_0$ |
| 1.5~68 | | | | 5 | 5 | 5 | | | |
| 100~330 | | | | 6 | 6 | 6 | | | |
| 470~1000 | | | | 8 | 8 | 8 | | | |

Table 3 Electrical Characteristics

| Rated Voltage | 6.3 | 10 | 16 | 25 | 32 | 40 | 63 | 75 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| Derating Voltage | 4 | 6.3 | 10 | 16 | 20 | 25 | 40 | 50 | 63 |
| Case Code | Nominal Capacitance$C_R$(μF) | | | | | | | | |
| 1 | 1.0 | 0.68 | 0.33 | 0.33 | 0.22 | 0.22 | 0.22 | 0.22 | 0.047 |
| | 1.5 | 1.0 | 0.47 | 0.47 | 0.33 | 0.33 | 0.33 | 0.33 | 0.068 |
| | 2.2 | 1.5 | 0.68 | 0.68 | 0.47 | 0.47 | 0.47 | | 0.1 |
| | 3.3 | 2.2 | 1.0 | 1.0 | 0.68 | 0.68 | | | 0.15 |
| | 4.7 | 3.3 | 1.5 | 1.5 | 1.0 | 1.0 | | | 0.22 |
| | 6.8 | 4.7 | 2.2 | 2.2 | 1.5 | | | | 0.33 |
| | 10 | 6.8 | 3.3 | | | | | | |
| 2 | 15 | 10 | 4.7 | 3.3 | 2.2 | 1.5 | 0.68 | 0.47 | 0.47 |
| | 22 | 15 | 6.8 | 4.7 | 3.3 | 2.2 | 1.0 | 0.68 | 0.68 |
| | 33 | 22 | 10 | 6.8 | 4.7 | 3.3 | 1.5 | 1.0 | 1.0 |
| | 47 | 33 | 15 | 10 | 6.8 | 4.7 | 2.2 | 2.2 | 1.5 |
| | 68 | 47 | 22 | 15 | 10 | 6.8 | 3.3 | | |
| | | | 33 | | | | | | |
| 3 | 100 | 68 | 47 | 22 | 15 | 10 | 4.7 | 3.3 | 2.2 |
| | | 100 | 68 | 33 | | 15 | | 4.7 | 3.3 |
| 4 | 150 | 150 | 100 | 47 | 22 | 22 | 6.8 | | |
| | 220 | | | 68 | 33 | 33 | 10 | | |
| 5 | 330 | 220 | 150 | 100 | 47 | 47 | 15 | | |
| | 470 | 330 | 220 | | 68 | | 22 | | |
| 6 | 680 | 470 | 330 | 150 | 100 | 68 | 33 | | |
| | 1000 | 680 | 470 | 220 | 150 | 100 | 47 | | |

P.S. : 1 Please do not use multimeter through the measuring procedures.

2 Capacitance and DF measured at :100Hz , $U_{_}=2.2^{\circ}_{-1.0}$V , $U_{\sim}=1.0^{\circ}_{-0.5}$V, Frequency=100Hz.

Test only applied in series equivalent circuit.

3 Voltage derating is applied at +125℃. ( The DCL parameter should be read after 5minutes when it connected to the circuit ) .

4 Special size and demand could consult with us.