

# 1、SCOPE

This specification applies to CA axial solid tantalum electrolytic capacitor produced by Shenzhen Be-Top Electronic Components Co., Ltd.



# 2、Brief Introduction

CA Series metal-cased solid tantalum electrolytic capacitors with polar axial leads are characterized in small size, wide operating temperature range, stable performance, high reliability and long life. CA Series meets the standard GB8583-88, and it is widely used in instruments meters and other electronic equipment for military and civil applications.

# 3、General Specification

- 1) Operating Temperature:  $-55\text{ }^{\circ}\text{C} \sim +125\text{ }^{\circ}\text{C}$  (using derating voltage when the temperature is higher than  $85\text{ }^{\circ}\text{C}$ ). (see table 1)
- 2) Capacitance Tolerance:  $\pm 10\%$  (K) ,  $\pm 20\%$  (M)
- 3) Current Leakage at Normal Temperature:  
 $I_0 \leq 0.01 C_R U_R (\mu\text{A})$  or  $0.5\mu\text{A}$  (Whichever is greater)
- 4) Dissipation Factor at Normal and High Temperature (see table 2):
- 5) Temperature Characteristics (see table 2)
- 6) Product Size (see table 3)
- 7) Test Conditions:

Tests should be done at temperatures  $5\text{-}35\text{ }^{\circ}\text{C}$ , humidity of  $45\text{-}85\%$ RH, and pressure of  $860\text{-}1060\text{mbar}$ . But in the case of a discrepancy, the final decision should be made by the testing at temp of  $25 \pm 2\text{ }^{\circ}\text{C}$ , humidity of  $50\text{-}70\%$ RH, and pressure of  $860\text{-}1060\text{mbar}$ .

**Table 1: Relation between Rated Voltage, Derating Voltage and Capacitance**

Rated Voltage(V)	6.3	10	16	25	35	40	63	75	100
Derating Voltage(V)	4	6.3	10	16	20	25	40	50	63
Case Code	Nominal Capacitance $C_R$ ( $\mu\text{F}$ )								
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						

Rated Voltage(V)	6.3	10	16	25	35	40	63	75	100
Derating Voltage(V)	4	6.3	10	16	20	25	40	50	63
Case Code	Nominal Capacitance $C_R$ ( $\mu\text{F}$ )								
2	15	10	4.7	3.3	2.2	1.5	0.68	0.47	
	22	15	6.8	4.7	3.2	2.2	1.0	0.68	0.47
	33	22	10	6.8	4.7	3.3	1.5	1.0	0.68
	47	33	15	10	6.8	4.7	2.2	1.5	1.0
	68	47	22	15	10	6.8	3.3	2.2	1.5
3			33						
	100	68	47	22		10	4.7	3.3	2.2
4		100	68	33	15	15		4.7	3.3
	150	150	100	47	22	22	6.8		
5	220			68	33	33	10		
	330	220	150	100	47	47	15		
6	470	330	220		68		22		
	680	470	330	150	100	68	33		
	1000	680	470	220	150	100	47		

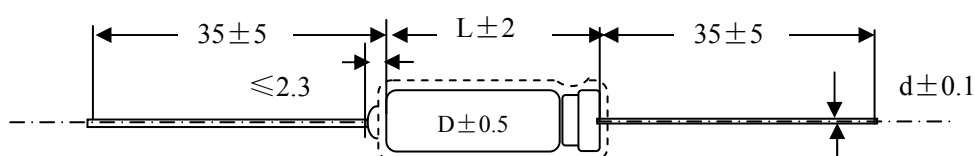
**Table 2: Temperature Characteristics**

Nominal Capacitance $C_R$ ( $\mu\text{F}$ )	Maximum								
	Capacitance Changes (%)			Dissipation Factor (%)				Current Leakage ( $\mu\text{A}$ )	
	-55°C	85°C	125°C	-55°C	25°C	85°C	125°C	85°C	125°C
$\leq 1$	$\pm 8$	$\pm 8$	$\pm 12$	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: Product Dimension and Max Weight**

Case Code	Max Weight (g)	Without Insulation Sleeve		With Insulation Sleeve		$d \pm 0.1$ (mm)
		$D \pm 0.5$ (mm)	$L \pm 2$ (mm)	$D_{\text{max}}$ (mm)	$L_{\text{max}}$ (mm)	
1	0.7	3.2	8.0	4.0	10.0	0.4
2	2.3	5.0	12.0	5.8	14.0	0.6
3	3.0	6.0	14.0	6.8	16.0	0.6
4	4.0	8.0	14.0	8.8	16.0	0.8
5	8.0	8.0	22.0	8.8	24.0	0.8
6	14.0	10.0	22.0	10.8	24.0	0.8

**Figure of Product**



## How to order

### CA-106K035-1

CA	106	K	035	1
Type	Capacitance	Tolerance	Rated Voltage	Operation Temperature
CA series axial solid tantalum capacitor	106=10 $\mu$ F	K= $\pm$ 10% M= $\pm$ 20%	6.3V=006 10V=010 16V=016 25V=025 35V=035 40V=040 63V=063 75V=075 100V=100	1. -55 $^{\circ}$ C—+125 $^{\circ}$ C 2. -55 $^{\circ}$ C—+85 $^{\circ}$ C