

1、SCOPE

This specification applies to CA502 series axial wet (185°C) produced by Shenzhen Be-Top Electronic Components Co., Ltd.



2、Brief Introduction

CA502 series wet electrolyte tantalum capacitors (185°C) are half sealed and silver coating sealed with polar axial leads. The series capacitors are characterized by low DC Leakage, low dissipation factor, stable performances, high reliability and long life. It has good performance in high-temp environment. It can be used in the conditions of 185°C. CA502 Series meets the standard QJ/PWV222-2008 and it is widely used in oil & gas exploration & drilling equipments.

3、General Specification

- 1) Operating Temperature: -55 °C ~+185 °C (using derating voltage when the temperature is higher than 155°C). (see table 1)
- 2) Capacitance Tolerance: ±10% (K) , ±20% (M), -10%~+30% (S)
- 3) Current Leakage:
 - At 25°C: $I_0 \leq 0.002C_R U_R$ (μA) or 2μA (Whichever is greater)
 - At 185°C: $I_0 \leq 0.04C_R U_R$ (μA) or 40μA (Whichever is greater)
- 4) Dissipation Factor at 25°C 100Hz frequency(see table 1).
- 5) Product Dimension and max weight (see table 2).

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

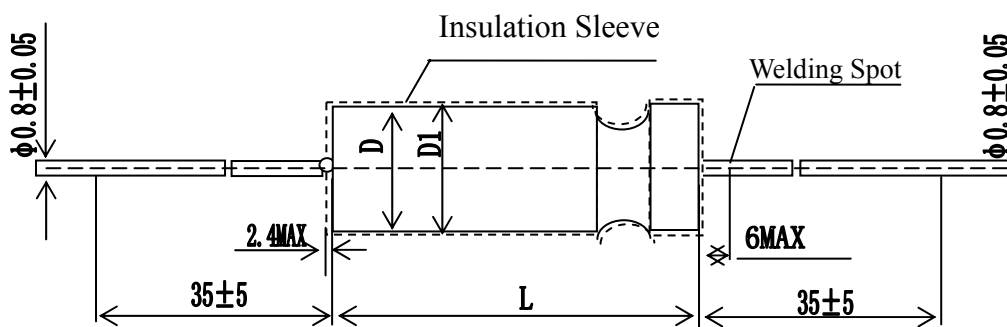
Rated Voltage $U_R(V)$	Derating Voltage $U_c(V)$	Case Code	Capacitance $C_R(\mu F)$	$tg \delta$ (%) 25°C	Rated Voltage $U_R(V)$	Derating Voltage $U_c(V)$	Case Code	Capacitance $C_R(\mu F)$	$tg \delta$ (%) 25°C
6.3	3	1	22	45	40	15	1	4.7	15
		1	33	45			1	6.8	20
		1	47	45			1	10	20
		1	68	45			1	15	25
		2	100	50			1	22	30
		2	150	50			2	33	30
		3	220	70			2	47	35
		3	330	75			2	68	30
		4	470	95			3	100	45
		4	680	95			4	150	45
		5	1000	100			5	220	45
10	5	1	15	40	50	20	1	3.3	10
		1	22	40			1	4.7	15
		1	33	40			1	6.8	15
		1	47	45			1	10	15

Rated Voltage $U_R(V)$	Derating Voltage $U_c(V)$	Case Code	Capacitance $C_R(\mu F)$	$\text{tg } \delta$ (%) 25°C	Rated Voltage $U_R(V)$	Derating Voltage $U_c(V)$	Case Code	Capacitance $C_R(\mu F)$	$\text{tg } \delta$ (%) 25°C
10	5	1	68	45	50	20	2	15	15
		2	100	50			2	22	20
		2	150	60			2	33	25
		3	220	65			3	47	25
		3	330	80			4	68	35
		4	470	85			4	100	35
		4	680	85			5	150	30
16	7	1	10	30	63	25	1	3.3	10
		1	15	30			1	4.7	15
		1	22	35			1	6.8	15
		1	33	35			1	10	15
		1	47	40			2	15	15
		2	68	40			2	22	20
		2	100	45			3	33	25
		3	150	45			3	47	25
		3	220	70			4	68	35
		4	330	80			5	100	35
		4	470	85			6	150	30
25	10	1	6.8	20	75	30	1	3.3	10
		1	10	20			1	4.7	10
		1	15	20			1	6.8	15
		1	22	25			2	10	20
		1	33	25			2	15	25
		2	47	30			3	22	35
		2	68	30			3	33	35
		2	100	40			4	47	33
		3	150	45			5	68	30
		4	220	60			6	120	30
		4	330	60			2	3.3	10
100	40	1	3.3	10	125	55	3	4.7	10
		2	4.7	10			3	6.8	15
		2	6.8	15			3	10	25
		3	10	20			4	15	25
		3	15	25			5	22	30
		4	22	35			6	33	35
		5	33	35			7	47	30
		6	47	33			7	47	30
		7	68	30					

Table 2: Product Dimension and Max Weight

Case Code	Max Weight (g)	Without Insulation Sleeve		With Insulation Sleeve	
		$D \pm 0.5(\text{mm})$	$L \pm 2(\text{mm})$	$D_1 \text{max}(\text{mm})$	$L \text{max}(\text{mm})$
1	4	5	14	5.8	16
2	5	6	16	6.8	18
3	7	8	16	8.8	18
4	10	8	22	8.8	24
5	14	10	22	10.8	24
6	17	10	25	10.8	27
7	20	10	30	10.8	32

Figure of Product



How to order

CA502-106M025

CA502	106	M	025
Type	Capacitance	Tolerance	Rated Voltage
CA502 Series axial wet tantalum capacitor (185°C)	106=10μF	K=±10% M=±20% S=-10%~+30%	6.3V=006
			10V=010
			16V=016
			25V=025
			40V=040
			50V=050
			63V=063
			75V=075
			100V=100
			125V=125