

TCA30 Series Military Wet Tantalum Capacitors

◆Features:

1. Silver case packing, semi-sealing, cylindrical shape, axial lead, coated with insulating sleeve, polarized.
2. Excellent electrical properties, stable and reliable, long life, Small size

◆Application:

Suitable for DC or pulsating circuits in electronic devices such as communication equipment and instrumentation

◆Technical Specifications:

1. Operating temperature range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
(when $>85^{\circ}\text{C}$, apply category voltage),
Rated voltage, category voltage, nominal capacitance:
see Table 2
2. Loss Tangent $\text{Tg}\delta$ (%): see table 2
3. Capacity level: K: $\pm 10\%$; M: $\pm 20\%$;
4. Room temperature leakage current:
 $I_0 \leq 0.001 C_2 U_2$ (μA) or $1\mu\text{A}$ (Max)
High temperature (85°C , 125°C) leakage current:
 $I \leq 0.008 C_2 U_2$ (μA) or $8\mu\text{A}$ (Max)
5. Negative temperature (-55°C) impedance: no more than specified in Table 2

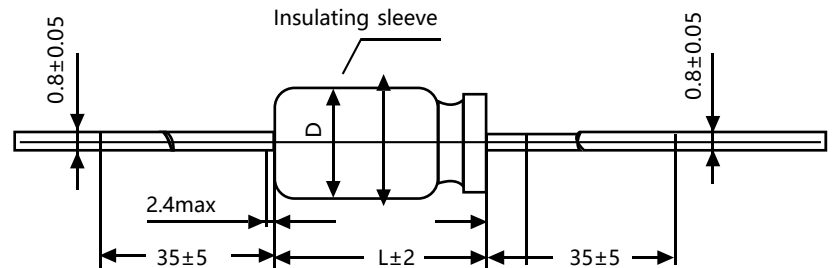


Figure 1

◆How to order

<u>I</u>	<u>CA30</u>	<u>I</u>	<u>3.3µF</u>	<u>M</u>	<u>0063</u>	<u>Size Code</u>	<u>B</u>
↓	↓	↓	↓	↓	↓	↓	↓
<u>Type</u>	<u>Type</u>	<u>Material code</u>	<u>Capacitance</u>	<u>Tolerance</u>	<u>Rated DC Voltage</u>	<u>Tolerance</u>	<u>Package</u>
Internal code	CA30	T: Tantalum cap	335=3.3uF 106=10uF 226=22uF	K: +/-10% M: +/-20%	0040:40V 0063:63V	0510: 5*10mm	B: Bulk

Table 1. Size and Weight

Case Code	Max Weight (g)	Dimensions	
		D ± 0.5 (mm)	L ± 2 (mm)
0	3	5	10
1	4	5	14
2	5	6	16
3	7	8	16
4	10	8	22
5	14	10	22
6	17	10	25
7	20	10	30
8	23	10	33

Note: After the insulating sleeve is applied, the diameter D increases by a maximum of 0.4 mm, and the length L increases by a maximum of 1.6 mm

Table 2 Electrical characteristics

Rated Voltage (V)	Category Voltage (V)	Case code	Capacitance (uF)	Loss Tangent Tgδ (%) 25°C, 85°C 125°C	ESR @-55°C 100Hz
6.3	4	0	1.0	6	1800
		0	1.5	6	1400
		0	2.2	6	1100
		0	3.3	6	700
		0	4.7	6	500
		0	6.8	8	350
		0	10	8	260
		0	15	10	200
		0	22	10	180
		0	33	12	125
		0	47	15	125
		0	68	18	125
		0	100	20	100
		1	150	30	80
		1	220	40	70
		2	330	40	60
		2	470	50	50
		3	680	50	35
		3	1000	60	25
		4	1200	60	25
		4	1500	60	20
		5	2200	70	20
		6	3300	80	15
10	6.3	0	1.0	6	1800
		0	1.5	6	1400
		0	2.2	6	1100
		0	3.3	6	700
		0	4.7	6	500
		0	6.8	8	350
		0	10	8	250
		0	15	10	200
		0	22	10	175
		0	33	12	125
		0	47	15	100

Rated Voltage (V)	Category Voltage (V)	Case code	Capacitance (uF)	Loss Tangent Tgδ (%) 25°C, 85°C 125°C	ESR @-55°C 100Hz
10	6.3	0	68	18	80
		0	100	20	60
		1	150	30	55
		2	220	40	45
		2	330	45	40
		3	470	50	35
		3	680	50	30
		4	1000	50	25
		4	1200	60	25
		5	1500	60	20
		6	2200	70	20
16 (15)	10	0	1.0	6	1800
		0	1.5	6	1400
		0	2.2	6	1100
		0	3.3	6	700
		0	4.7	6	500
		0	6.8	8	350
		0	10	8	260
		0	15	10	180
		0	22	10	150
		0	33	12	110
		0	47	12	90
		0	68	18	80
		1	100	20	70
		2	150	30	60
		2	220	40	55
		3	330	40	45
		4	470	40	40
		5	680	45	35
		6	1000	50	30
		6	1200	50	25
		7	1500	60	20
25	16	0	1.0	6	1800
		0	1.5	6	1400



Electrical characteristics

Rated Voltage (V)	Category Voltage (V)	Case code	Capacitance (uF)	Loss Tangent Tgδ (%) 25°C,85°C 125°C	ESR @-55°C 100Hz	Rated Voltage (V)	Category Voltage (V)	Case code	Capacitance (uF)	Loss Tangent Tgδ (%) 25°C,85°C 125°C	ESR @-55°C 100Hz
25	16	0	2.2	6	1100	40	25	5	330	25	35
		0	3.3	6	700			5	350	25	35
		0	4.7	6	500			5	470	30	35
		0	6.8	8	300			6	680	40	30
		0	10	8	260			7	1000	45	30
		0	15	10	175			8	1200	50	25
		0	22	10	150			0	1.0	6	1800
		0	33	12	110			0	1.5	6	1400
		0	47	12	80			0	2.2	6	1100
		1	68	20	75			0	3.3	6	700
	50	2	100	20	70	50	30	0	4.7	6	500
		3	150	25	60			0	6.8	8	350
		3	220	30	55			0	10	8	260
		4	330	30	45			0	15	10	175
		5	470	40	40			1	22	12	150
		6	680	40	35			2	33	12	110
		7	1000	40	30			2	47	15	80
		7	1200	50	25			3	68	15	75
		8	1500	60	20			3	100	20	65
								4	150	20	50
40	25	0	1.0	6	1800	63	40	4	220	25	45
		0	1.5	6	1400			5	330	25	45
		0	2.2	6	1100			6	470	35	35
		0	3.3	6	700			7	680	40	30
		0	4.7	6	450			8	1000	50	30
		0	6.8	8	350			0	1.0	6	1800
		0	10	8	260			0	1.5	6	1400
		0	15	10	175			0	2.2	6	1100
		0	22	12	140			0	3.3	6	700
		1	33	12	110			0	4.7	6	500
		2	47	15	80			0	6.8	8	350
		2	68	15	75			0	10	8	260
		2	100	20	65			1	15	10	175
		3	150	20	50			2	22	12	140
		4	220	25	45						

Electrical characteristics

Rated Voltage (V)	Category Voltage (V)	Case code	Capacitance (uF)	Loss Tangent Tgδ (%) 25°C,85°C 125°C	ESR @-55°C 100Hz	Rated Voltage (V)	Category Voltage (V)	Case code	Capacitance (uF)	Loss Tangent Tgδ (%) 25°C,85°C 125°C	ESR @-55°C 100Hz
63	40	2	33	12	100	100 (90)	63	0	4.7	6	500
		2	47	15	80			1	6.8	8	350
		3	68	15	65			1	10	8	260
		3	100	20	60			2	15	10	175
		4	150	20	50			2	22	10	150
		5	220	25	45			3	33	15	100
		6	330	25	35			3	47	15	70
		7	470	40	30			4	68	15	65
75 (70)	50	0	1.0	6	1800			5	100	20	60
		0	1.5	6	1400			6	150	20	50
		0	2.2	6	1100			7	220	20	40
		0	3.3	6	700	125	75	0	0.47	6	4500
		0	4.7	6	500			0	0.68	6	3000
		1	6.8	8	350			0	1.0	6	1800
		1	10	8	260			0	1.5	6	1400
		2	15	10	175			0	2.2	6	1100
		2	22	12	150			0	3.3	6	700
		3	33	12	110			1	4.7	6	500
		3	47	15	80			1	6.8	8	350
		4	68	15	70			2	10	10	260
		4	100	20	60			2	15	10	175
		5	150	20	50			3	22	15	150
		6	220	25	45			3	33	15	120
		7	330	25	35			4	47	15	90
100 (90)	63	0	1.0	6	1800			5	68	15	70
		0	1.5	6	1400			6	100	15	50
		0	2.2	6	1100			7	150	20	45
		0	3.3	6	700						

1. The measurement frequency of capacitance and loss tangent is 100Hz, and the measurement method is equivalent series circuit, $U_{\text{eff}}=2.2 \times 10, U_{\text{eff}}=1.0 \times V$ (effective value);
2. When measuring the leakage current at 125°C, the category voltage is applied;
3. It is forbidden to use a multimeter without polarity to measure tantalum capacitors;
4. Products with special capacity or special size exceeding this standard can be produced through consultation with our company.

Note: Specification is subject to change without further notice. For more details and updates, please visit our website.