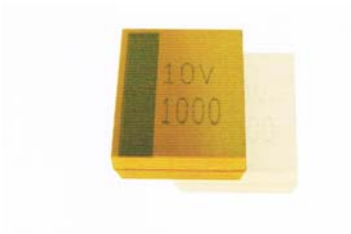
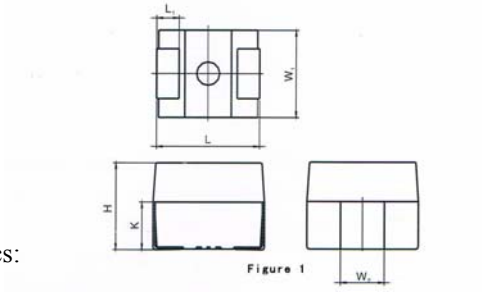
CA45M Series High Voltage High Capacitance Epoxy Molded Solid Electrolytic Chip Tantalum Capacitor

Brief Introduction



●Epoxy molded encapsulation,Chip,Heteropolarity;
●Small in size，Light in weight,Stable in electrical performances,High reliability;High Capacitance;
●CTC21 is equal to FIRADEC's CTC21 Series Tantalum Capacitor;
●Applying in Satellites,Communications,Camera Shooting,Computers,such equipments with High-reliable SMT Circuit;
●Operative Standard:QJ/PWV329-2010;
●Ordering Information:CA45M-108K010T:1000pcs.

Features



●Operating Temperature Range: -55°C~+125°C(When ＞85°C, with rated voltage derating);
●Capacitance Tolerance: K: ±10%；M:±20%;
●DC Leakage at 25°C：$I_0 \leqslant 0.01 C_R U_R$(μA) or 0.5μA (Choose the greater one);
●Dimensions: See Figure 1 & Table1;
●Dissipation Factors (tgδ) at 25°C & Temperature Characteristics: See Table 2;
●Rated Voltage,Category Voltage,Surge Voltage,Nominal Capacitance:See Table 3;
●ESR(Ω):See Table 3.

Table1 Dimensions

Case Code	L±0.3	W_1±0.3	H±0.2	L_1±0.3	W_2±0.1	K±0.3
T	11	12.5	5.5	1.5	10.5	3.0

Table 2 Temperature Characteristics

Max					
DF tgδ(%)				DCL (μA)	
-55℃	25℃	85℃	125℃	85℃	125℃
6	4	6		8Ⅰ。	10Ⅰ。
8	6	8			
10	8	10			
12	10	12			
14	12	14			
16	14	16			
20	18	20			

Table 3 Electrical Characteristics

Nominal Capacitance C_R（μF）	Case Code	Max DCL(100Hz) at +25℃ μA	Max DF(100Hz) at +25℃	Max ESR(100KHz) +25℃ Ω
Rated Voltage 6.3V,Category Voltage 4V				
680	T	42.8	14.0	0.1
820	T	51.6	18.0	0.1
1000	T	63.0	18.0	0.1
1500	T	94.5	18.0	0.1
2200	T	138	18.0	0.1
Rated Voltage 10V,Category Voltage 6.3V				
390	T	39.0	14.0	0.1
470	T	47.0	14.0	0.1
560	T	56.0	14.0	0.1
680	T	68.0	14.0	0.1
820	T	82.0	18.0	0.1
1000	T	100	18.0	0.1
1500	T	150	18.0	0.1
Rated Voltage 16V,Category Voltage 10V				
270	T	43.2	12.0	0.2
330	T	52.8	12.0	0.2
390	T	62.4	12.0	0.2
470	T	75.2	14.0	0.18
560	T	89.6	14.0	0.15
680	T	108.8	14.0	0.1
820	T	131.2	18.0	0.1
1000	T	160	18.0	0.1
Rated Voltage 20V,Category Voltage 13V				
180	T	36.0	12.0	0.2
220	T	44.0	12.0	0.2
270	T	54.0	12.0	0.2

Nominal Capacitance C_R（μF）	Case Code	Max DCL(100Hz) at +25℃ μA	Max DF(100KHz) at +25℃	Max ESR(100KHz) +25℃ Ω
Rated Voltage 25V,Category Voltage 17V				
330	T	16.5	12.0	0.2
390	T	97.5	12.0	0.2
470	T	117.5	14.0	0.18
560	T	140	14.0	0.15
680	T	170	14.0	0.1
Rated Voltage 25V,Category Voltage 16V				
150	T	37.5	10.0	0.2
220	T	55.0	12.0	0.2
270	T	67.5	12.0	0.2
330	T	82.5	12.0	0.2
390	T	97.5	12.0	0.2
470	T	117.5	14.0	0.18
Rated Voltage 35V,Category Voltage 20V				
56	T	19.6	8.0	0.3
68	T	23.8	8.0	0.25
82	T	28.7	8.0	0.25
100	T	35.0	10.0	0.25
150	T	52.5	10.0	0.2
Rated Voltage 40V,Category Voltage 25V				
47	T	18.8	8.0	0.3
56	T	22.4	8.0	0.3
68	T	27.2	8.0	0.25
100	T	40.0	10.0	0.25
Rated Voltage 50V,Category Voltage 32V				
27	T	13.5	8.0	0.3
33	T	16.5	8.0	0.3

Table 3 Electrical Characteristics,Continued

Nominal Capacitance C_R（μF）	Case Code	Max DCL(100Hz) at +25℃ μA	Max DF(100KHz) at +25℃	Max ESR(100KHz) +25℃ Ω
Rated Voltage 50V,Category Voltage 32V				
39	T	19.5	8.0	0.3
47	T	23.5	8.0	0.3
68	T	34.0	8.0	0.25
100	T	50.0	10.0	0.25
Rated Voltage 63V,Category Voltage 40V				
15	T	9.45	6.0	0.35
18	T	11.3	6.0	0.35
22	T	13.8	6.0	0.35
27	T	17.1	6.0	0.3
33	T	20.8	6.0	0.3
39	T	24.5	6.0	0.3
47	T	29.6	6.0	0.3

Nominal Capacitance C_R（μF）	Case Code	Max DCL(100Hz) at +25℃ μA	Max DF(100KHz) at +25℃	Max ESR(100KHz) +25℃ Ω
Rated Voltage 75V,Category Voltage 50V				
10	T	7.5	6.0	0.4
12	T	9.0	6.0	0.4
15	T	11.2	6.0	0.35
22	T	16.5	6.0	0.35
27	T	20.2	6.0	0.3
33	T	24.7	6.0	0.3
Rated Voltage 100V,Category Voltage 63V				
6.8	T	6.8	6.0	0.4
8.2	T	8.2	6.0	0.4
10	T	10.0	6.0	0.4
12	T	12.0	6.0	0.4
15	T	15.0	6.0	0.35
22	T	22.0	6.0	0.3

P.S. : 1 Please do not use multimeter through the measuring procedures.
2 Capacitance and DF measured at :100Hz，U__=2.2°$_{-1.0}$V，U~=1.0°$_{-0.5}$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.