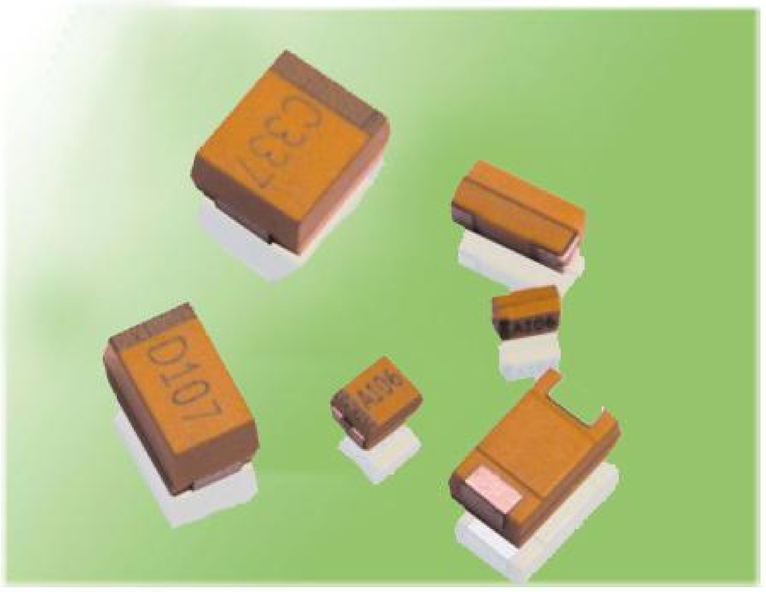
CA45U Series High Frequency Epoxy Molded Solid Electrolytic Chip Tantalum Capacitor

Features

※ (Can Instead of KEMET's T495, AVX's TPS, VISHAY's TR3 Series' Low ESR Capacitors)

Brief Introduction



- Epoxy molded encapsulation, Chip, Heteropolarity;
- Small in size, Light in weight, Stable in electrical performances , High Reliability& Frequency& Capacitance , Low ESR (is equal to KEMET' S CA45U) , High Capacitance;
- Applying in Satellites, Communications, Camera Shooting , Computers , such equipments with High-reliable SMT circuit;
- Operative Standard: QJ/PWV330-2010;

Features

Brief Introduction

- Operating Temperature Range: -55℃~+125℃(when >85℃ , with rated voltage derating);
- Capacitance Tolerance: K: ±10% ; M:±20%;
- DC Leakage at 25℃ : $I_D \leq 0.01C_RU_R$ (μA) or 0.5μA (Choose the greater one) ;
- Dimensions : See Figure 1 & Table1;
- Dissipation Factors (tgδ) a t 25℃ & Temperature Characteristics : See table 2;
- Rated Voltage, Category Voltage, Surge Voltage,Nominal Capacitance: See Table 3;
- ESR (Ω) : Not exceed the parameter in Table 3;

Dimensions--Millimeters

Table 1 Dimensions (mm)

Case Code	L±0.2	W_1±0.2	H±0.2	S±0.2	W_2±0.2
C	6.0	3.2	2.5	1.3	2.2
D	7.3	4.3	2.8	1.3	2.4
E	7.3	4.3	4.1	1.35	2.4

Outline Drawings

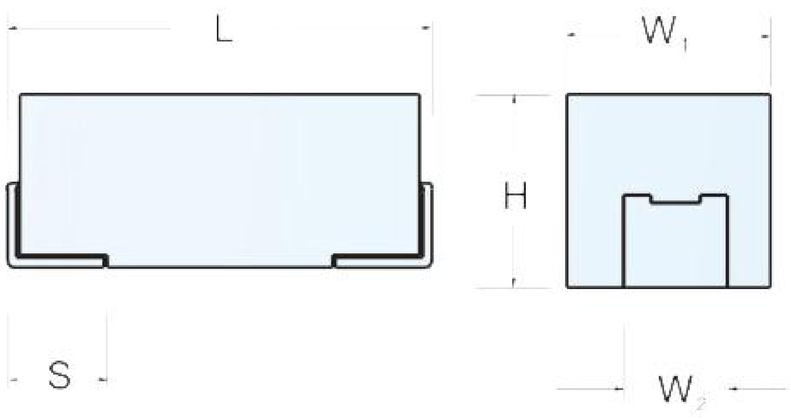


Table2 Temperature Characteristics

Max					
DF(%)				(μA)DCL	
-55℃	25℃	85℃	125℃	85℃	125℃
6	4	6		$8 I_0$	$10 I_0$
8	6	8			
10	8	10			
12	10	12			
14	12	14			
18	16	18			

Table3 Electrical Characteristics

Nominal Capacitance (μF)	Case Code	Max DCL(100Hz) at +25℃μA	Max DF(100kHz) at +25℃	Max ESR (100 kHz) +25℃ MΩ
Rated Voltage 4V, Category Voltage 2.7V				
68	C	2.7	6.0	0.2
100	C	4.0	8.0	0.2
150	C	6.0	8.0	0.2
220	D	8.8	10.0	0.1
330	D	13	10.0	0.1
470	D	19	12.0	0.1
680	E	27	16.0	0.1
1000	E	40	16.0	0.07
Rated Voltage 6V, Category Voltage4V				
15	C	0.9	6.0	0.4
22	C	1.4	6.0	0.35
33	C	2.0	6.0	0.3
47	C	2.9	6.0	0.2
68	C	4.1	6.0	0.2
68	D	4.1	8.0	0.175
100	C	6.0	8.0	0.2
100	D	6.0	8.0	0.15
150	C	9.0	8.0	0.2
150	D	9.0	8.0	0.15
220	D	13.2	10.0	0.1
330	D	19.8	10.0	0.8
330	E	19.8	10.0	0.8
470	D	28.2	12.0	0.8
470	E	28.2	12.0	0.8
680	E	40.8	12.0	0.8
1000	E	60.0	16.0	0.8

Nominal Capacitance (μF)	Case Code	Max DCL(100Hz) at +25℃μA	Max DF(100kHz) at +25℃	Max ESR (100 kHz) +25℃ MΩ
Rated Voltage 10V, Category Voltage6.3V				
10.0	C	1.5	6.0	0.5
15.0	C	1.5	6.0	0.4
22.0	C	2.2	6.0	0.345
33.0	C	3.3	6.0	0.3
47.0	D	4.7	6.0	0.2
68.0	D	6.0	6.0	0.15
100	D	10	8.0	0.1
150	D	8.0	8.0	0.1
220	D	22	10.0	0.125
330	E	33	12.0	0.8
470	E	47	12.0	0.8
Rated Voltage 16V, Category Voltage10V				
6.8	C	1.1	6.0	0.5
10.0	C	1.6	6.0	0.5
15.0	C	2.4	6.0	0.4
22.0	D	3.6	6.0	0.25
33.0	C	5.3	6.0	0.3
33.0	D	5.3	6.0	0.2
47.0	D	7.5	6.0	0.2
68.0	D	10.9	6.0	0.15
100	E	16.0	6.0	0.125
100	D	16.0	6.0	0.1
150	E	24.0	6.0	0.1
220	E	35.0	10.0	0.1
Rated Voltage 20V, Category Voltage13V				
4.7	C	2.3	6.0	0.6

Table3 Electrical Characteristics

Nominal Capacitance (μF)	Case Code	Max DCL(100Hz) at +25℃μA	Max DF(100kHz) at +25℃	Max ESR (100 kHz) +25℃ MΩ
Rated Voltage 20V, Category Voltage13V				
6.8	C	3.4	6.0	0.5
10	C	5.0	6.0	0.45
15	D	7.5	6.0	0.275
22	D	11.0	6.0	0.275
33.0	D	5.3	6.0	0.2
47.0	D	7.5	6.0	0.175
47.0	E	7.5	6.0	0.15
68.0	D	10.9	6.0	0.15
68.0	E	10.9	1.0	0.15
100	E	16.0	8.0	0.12
150	E	24	8.0	0.12
Rated Voltage 25V, Category Voltage16V				
4.7	C	2.3	6.0	0.6
6.8	C	3.4	6.0	0.5
10	C	5.0	6.0	0.45
15	D	7.5	6.0	0.3
22	D	11.0	6.0	0.3
33.0	D	5.3	6.0	0.3
47.0	D	7.5	6.0	0.25
68.0	E	10.9	6.0	0.2
100	E	16.0	8.0	0.1
Rated Voltage 35V, Category Voltage20V				
4.7	C	2.3	6.0	0.6
6.8	D	3.4	6.0	0.4
10	D	5.0	6.0	0.3
15	D	7.5	6.0	0.3
22	E	11.0	6.0	0.3
22	D	11.0	6.0	0.3
33.0	C	5.3	6.0	0.25
47.0	D	7.5	6.0	0.3
Rated Voltage 50V, Category Voltage32V				
2.2	C	1.1	6.0	0.5
2.2	D	1.6	6.0	0.8
3.3	D	1.6	6.0	0.6
4.7	D	2.3	6.0	0.3
6.8	D	3.4	6.0	0.3
10	E	5.0	6.0	0.3
15	E	7.5	6.0	0.3

Nominal Capacitance (μF)	Case Code	Max DCL(100Hz) at +25℃μA	Max DF(100kHz) at +25℃	Max ESR (100 kHz) +25℃ MΩ
Rated Voltage 63V, Category Voltage40V				
1.0	C	0.7	6.0	2.0
1,5	D	0.7	6.0	1.5
2.2	D	0.7	6.0	0.8
3.3	D	1.6	6.0	0.6
4.7	E	2.3	6.0	0.6
6.8	E	3.4	6.0	0.5
10	E	6.3	6.0	0.4
Rated Voltage 75V, Category Voltage50V				
1.0	D	0.7	6.0	2.0
1.5	D	0.7	6.0	1.5
3.3	E	1.6	6.0	0.8
4.7	E	2.3	6.0	0.6
6.8	E	3.4	6.0	0.6
Rated Voltage 100V, Category Voltage63V				
1.5	D	1.5	6.0	2.0
2.2	E	2.2	6.0	1.5
3.3	E	3.3	6.0	0.8

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.