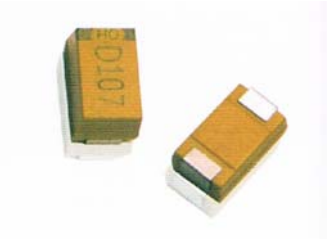
CA55 Series Conductive Polymer Electrolytic Chip Tantalum Capacitor

※(Can replace KEMET's T520,AVX's TCJ Series' Conductive Polymer Electrolytic Chip Tantalum Capacitor)

Brief Introduction



●Epoxy molded encapsulation,Chip,Small in size,Light in weight,Heteropolarity;
●Stable in electrical & storage performances,Long life-span,High reliability;
●Conductive Polymer Electrolytic,Super Low ESR,High Frequency Properties, Enduring Ripple Current;
●No Combustion Failure Mode;
●100% Passed Surge Current Texting;
●Applying in Satellites,Communication-Equipments,Cameras,PC such Equipments with DC & Impulse Circuit for Military and Civil use;
●Operative Standard:QJ/PWV501-2011;
●Ordering Information:CA55-476M010C:1000pcs.

Features

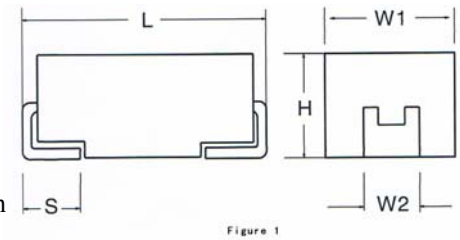


Figure 1

●Operating Temperature Range: -55°C~+125°C(When ＞85°C, with rated voltage derating);
●Rated Voltage,Category Voltage,Nominal Capacitance:See Table 2;
●Capacitance Tolerance: K: ±10%；M:±20%;
●DC Leakage & DF (tgδ) at 25°C：Not exceed the parameter in Table 3;
●AC Ripple Current (85℃、100KHz): Not exceed the parameter in Table 4;
●ESR (25℃、100KHz): Not exceed the parameter in Table 5;
●Temperature Characteristics: Not exceed the parameter in Table 3;
●Dimensions and Case Code: See Figure 1 & Table1.

Table1 Dimensions(mm)

Case Code	L	W_1	H	S	W_2
A	3.2±0.2	1.6±0.2	1.6±0.2	0.8±0.2	1.2±0.2
B	3.5±0.2	2.8±0.2	1.9±0.2	0.8±0.2	2.2±0.2
C	6.0±0.2	3.2±0.2	2.5±0.2	1.3±0.2	2.2±0.2
D	7.3±0.2	4.3±0.2	2.8±0.2	1.3±0.2	2.4±0.2
E	7.3±0.2	4.3±0.2	4.1±0.2	1.3±0.2	2.4±0.2

Table 2 Temperature Characteristics

Case Code	Range of Capacitance (%)			Max						
				tgδ(%)				DCL (μA)		
	-55℃	85℃	125℃	-55℃	25℃	85℃	125℃	25℃	85℃	125℃
A	±10	±20	±30	10	8	10	10	$I_0 \leqslant 0.1U_RC_R$	8Ⅰ。	10Ⅰ。
B										
C										
D				12	10	12	12			
E										

Table 3 Electrical Characteristics

Rated Voltage U_R(V)	2.5	4	6.3	10	16	25
Derating Voltage U_C(V)	1.7	2.7	4	7	10	17
Nominal Capacitance C_R(μF)	Case(Standard Size,Small Size)					
10				B/A	B	C
15		B/A	B/A	B/A	B	D
22		B	B	B	C	E
33		C	C	C	D	E
47		C/B	C/B	C/B	D	
68		C	C	C	D/E	
100		C	D	D	D	
150		D	D	D	E	
220		D	D	D	E	
330		D	E	E		
470	C	D	E			
680	D	E				
1000	E					

P.S. : 1 U_R is Rated Voltage,C_R is Nominal Capacitance.

2 Capacitance and DF measured at :(120±5)Hz，$U_{\_\_}$=2.2$^{\circ}_{-1.0}$V，$U_{\sim}$=1.0$^{\circ}_{-0.5}$V, Frequency=100Hz.

3 DCL Measuring Conditions:Applying Rated Voltage,the Charging Interval can not exceed 5 min(when testing under 125℃,please applying Category Voltage).

Table 4 AC Ripple Current at 85℃

Rated Voltage U_R(V)	2.5	4	6.3	10	16	25
Nominal Capacitance C_R(μF)	AC Ripple Current (85℃,100KHz) A					
10				1.0	1.1	1.0
15		0.7	0.7	1.0	1.2	1.2
22		0.7	0.7	1.0	1.2	1.2
33		0.9	0.9	1.0	1.3	1.5
47		0.9	0.9	1.0	1.3	
68		1.0	1.0	1.3	1.3	
100		1.0	1.0	1.3	1.3	
150		1.0	1.5	1.5	2.2	
220		1.4	1.6	1.7	2.2	
330		1.6	1.6	1.8		
470	1.6	1.7	1.8			
680	2.0	2.0				
1000	2.5					

Table 5 ESR at 25℃

Rated Voltage U_R(V)	2.5	4	6.3	10	16	25
Nominal Capacitance C_R(μF)	ESR (25℃,100KHz) Ω					
10				0.08	0.1	0.1
15		0.1	0.1	0.08	0.1	0.08
22		0.09	0.09	0.08	0.08	0.08
33		0.08	0.06	0.06	0.05	0.08
47		0.07	0.06	0.05	0.06	
68		0.07	0.06	0.05	0.05	
100		0.05	0.06	0.05	0.06	
150		0.06	0.055	0.05	0.05	
220		0.06	0.05	0.04	0.05	
330		0.04	0.04	0.04		
470	0.05	0.04	0.04			
680	0.04	0.035				
1000	0.03					

P.S. : Capacitance and DF measured at :(Frequency=(100±5)Hz，U__=2.2°$_{-1.0}$V，U~=1.0°$_{-0.5}$V).