

Tantalum capacitors

ET3-CA45L Low ESR Chip Tantalum Capacitors **ELECSOUND®**

Elecsound is the leading manufacturer of tantalum capacitors, we offer very high quality for dipped type and SMD type tantalum capacitors.

Epoxy molded encapsulation, Chip, Heteropolarity;

Small in size, Light in Weight, Stable in electrical & storage performances

Long life-span, High reliability;

Low ESR, High Frequency performance

Applying in Satellite, Telecommunications, DV, Computer

such Electrical Equipments with High reliable SMT DC & Impulse Circuit

which has high demanding in high-frequency electronic character;

Operative Standard: QJ/PWV305-2008;

Ordering Information: CA45L-E-16V100uF-M:1000pcs



Table 1 Dimensions

case Code	L ± 0.2	W1 ± 0.2	H ± 0.2	S ± 0.2	W2 ± 0.2
A	3.2	1.6	1.6	0.8	1.2
B	3.5	2.8	1.9	0.8	2.2
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	1.3	2.4
V	7.3	6.1	3.6	1.35	3.0

Operating temperature Range: -55 ~125°C

Rated Voltage, Category Voltage, Nominal Capacitance: See Table 2;

Capacitance Tolerance: K: ±10% ; M: ±20%;

DC Leakage at 25°C: $10 \leq 0.01CRUR$ (uA) or 0.5uA (which is greater)

Dissipation Factors (tg &) at 25°C: Not exceed the parameter in Table 3

ESR: Not exceed the parameter in Table 4

Temperature Characteristics: Not exceed the parameter in Table 2

Dimensions: See Table 1 & Figure

Table 2 Temperature Characteristics

CR (μF) Nomina Capacitancel	Max tg & (%) DF (%)					
	-55°C	25°C	85°C	125°C	85°C	125°C
≤1.0	6	4	6			
1.5~6.8	8	6	8			
100-300(CD)	10	8	10			8 10
100-300(B)	12	10	12			10 10
≥470	14	12	14			

Table 3 Rated Voltage, Category Voltage, Surge Voltage, Nominal Capacitance

Rated Voltage	4	6.3	10	16	20	25	35	50
Derating	2.7	4	7	10	15	17	23	33
Surge Voltage	5	8	13	20	26	32	46	65
Nominal	Case (Standard Size, Small Size, Mini Size)							
0.1							A	A
0.15							A	B/A
0.22							A	B/A
0.33							A	B/A
0.47					A	A	B/A	C/B
0.68				A	A	B/A	B/A	C/B
1.0			A	A	B/A	B/A	B/A	C/B
1.5		A	A	B/A	B/A	B/A	C/B	D/C
2.2	A	A	B/A	B/A	B/A	C/B	C/B	D/C
3.3	A	B/A	B/A	B/A	C/B/A	C/B	D/C	D/C
4.7	B/A	B/A	B/A	C/B/A	C/B	D/C/B	D/C	D
6.8	B/A	B/A	C/B/A	C/B/A	D/C/B	D/C/B	D/C	E/D
10	B/A	C/B/A	C/B/A	C/B	D/C/B	D/C/B	D/C	V/E
15	C/B	C/B	C/B	D/C/B	D/C	D/C	E/D	
22	C/B	D/C/B	D/C/B	D/C	D/C	E/D/C	V/E	
33	D/C/B	D/C/B	D/C/B	D/C	E/D/C	E/D	V/E	
47	D/C/B	D/C/B	D/C	E/D/C	E/D	V/E		
68	D/C	D/C	E/D/C	E/D	V/E	V/E		
100	D/C	E/D/C	E/D/C	E/D	V/E			
150	E/D/C	E/D/C	E/D	V/E/D	E			
220	E/D	V/E	V/E	V/E	V			
330	V/E	V/E	V/E	V/E				
470	V/E	V/E	V/E					

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Table4 ESR (Ω)

Rated Voltage	4	6.3	10	16	20	25	35	50
Nominal Capacitance	ESR (100KHz, Corresponding to Case Code) Ω							
0.1							A:12.0	A:12.0
0.15							A:10.0	B:8.0 A:10.0
0.22							A:8.0	B:6.0 A:10.0
0.33						A:10.0	A:7.0	B:5.0 A:8.0
0.47					A:9.0	A:9.0	B:4.0 A:8.0	C:2.5 B:3.0
0.68				A:8.0	A:8.0	B:5.5 A:7.0	B:3.5 A:7.0	C:2.0 B:3.0
1.0			A:6.0	A:6.0	B:5.0 A:6.0	B:4.0 A:6.0	B:3.0 A:6.0	C:1.8 B:2.0
1.5		A:6.0	A:6.0	B:0.5 A:6.0	B:4.5 A:5.0	B:3.0 A:4.5	C:2.5 B:3.0	D:1.0 C:1.8
2.2	A:6.0	A:6.0	B:5.0 A:6.0	B:3.0 A:5.0	B:2.5 A:4.5	C:2.0 B:2.5	C:2.0 B:2.5	D:0.7 C:1.5
3.3	A:6.0	B:5.0 A:6.0	B:3.5 A:5.0	B:2.5 A:4.5	C:2.5 B:3.0	C:1.2 B:2.0	D:1.0 C:1.2	D:0.7 C:1.2
4.7	B:3.0 A:3.5	B:3.5 A:4.0	B:2.0 A:3.5	C:1.8 B:2.0 A:3.0	C:1.0 B:1.5	D:0.8 C:1.0 B:1.5	D:0.7 C:0.8	D:0.6
6.8	B:2.0 A:3.0	B:2.0 A:2.5	C:1.5 B:2.1 A:3.0	C:1.0 B:1.5 A:3.0	D:0.7 C:0.8 B:1.0	D:0.7 C:0.8 B:2.5	D:0.6 C:0.7	E:0.5 D:0.6
10	B:1.5 A:2.0	C:1.5 B:1.8 A:2.0	C:0.8 B:1.5 A:2.5	C:0.8 B:1.2	D:0.5 C:0.6 B:1.2	D:0.45 C:0.6 B:2.5	D:0.4 C:0.7	V/E:0.4
15	C:1.2 B:1.8	C:0.6 B:1.8	C:0.6 B:1.2	D:0.6 C:0.6 B:1.2	D:0.4 C:0.5	D:0.4 C:0.5	E:0.3 D:0.35	
22	C:0.6 B:1.6	D:0.5 C:0.8 B:1.2	D:0.5 C:0.7 B:1.0	D:0.4 C:0.5	D:0.35 C:0.4	E:0.3 D:0.3 C:0.8	V/E:0.3	
33	D:0.6 C:0.9 B:1.2	D:0.3 C:0.8 B:1.0	D:0.3 C:0.5 B:1.5	D:0.3 C:0.4	E:0.25 D:0.3 C:0.8	E:0.25 D:0.3	V/E:0.3	
47	D:0.3 C:0.9 B:1.0	D:0.3 C:0.5 B:0.6	D:0.3 C:0.4	E:0.2 D:0.3 C:0.6	E:0.25 D:0.25	V/E:0.25		
68	D:0.25 C:0.6	D:0.2 C:0.5	E:0.2 D:0.3 C:0.6	E:0.2 D:0.2	V/E:0.25	V/E:0.25		
100	D:0.25 C:0.5	E:0.15 D:0.2 C:0.4	E:0.15 D:0.2 C:0.5	E:0.2 D:0.2	V/E:0.25			
150	E:0.15 D:0.35 C:0.5	E:0.15 D:0.3 C:0.5	E:0.15 D:0.2	V/E:0.2 D:0.5	E:0.18			
220	E:0.15 D:0.3	V/E:0.2 C:0.5	V/E:0.2	V/E:0.2	V:0.18			
330	V/E:0.2	V/E:0.2	V/E:0.18	V/E:0.18				
470	V/E:0.15	V/E:0.15	V/E:0.15					