

Tantalum capacitors

ET3 - CA45L LOW ESR Chip Tantalum Capacitors

ELECSOUND®

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

Operating temperature Range : -55 ~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 at 25°C : $I_0 \leq 0.01CRUR$ (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 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

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
100-300(B)	12	10				12
≥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 Voltage	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	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
0.22							A:8.0	B:6.0
0.33						A:10.0	A:7.0	B:5.0
0.47					A:9.0	A:9.0	B:4.0	C:2.5
0.68				A:8.0	A:8.0	B:5.5	B:3.5	C:2.0
1.0			A:6.0	A:6.0	B:5.0	B:4.0	B:3.0	C:1.8
1.5		A:6.0	A:6.0	B:0.5	B:4.5	B:3.0	C:2.5	D:1.0
2.2	A:6.0	A:6.0	B:5.0	B:3.0	B:2.5	C:2.0	C:2.0	D:0.7
3.3	A:6.0	B:5.0	B:3.5	B:2.5	C:2.5	C:1.2	D:1.0	D:0.7
4.7	B:3.0	B:3.5	B:2.0	C:1.8	C:1.0	D:0.8	D:0.7	D:0.6
6.8	A:3.0	A:4.0	A:3.5	B:2.0	B:1.5	C:1.0	C:0.8	
10	B:1.5	C:1.5	C:0.8	C:0.8	D:0.5	D:0.45	D:0.4	V/E:0.4
15	A:2.0	B:1.8	B:1.5	B:1.2	C:0.6	C:0.6	C:0.7	
22	C:1.2	C:0.6	C:0.6	D:0.6	D:0.4	D:0.4	E:0.3	
33	B:1.8	B:1.8	B:1.2	C:0.6	C:0.5	C:0.5	D:0.35	
47	C:0.6	D:0.5	D:0.5	D:0.4	D:0.35	E:0.3	V/E:0.3	
68	B:1.6	C:0.8	C:0.7	C:0.5	C:0.4	D:0.3		
100	B:1.2	B:1.0	B:1.0			C:0.8		
150	D:0.6	D:0.3	D:0.3	D:0.3	E:0.25	E:0.25	V/E:0.3	
220	C:0.9	C:0.8	C:0.5	C:0.4	D:0.3	D:0.3		
330	B:1.2	B:1.0	B:1.5		C:0.8			
470	D:0.3	D:0.3	D:0.3	E:0.2	E:0.25	V/E:0.25		
	C:0.9	C:0.5	C:0.4	D:0.3	D:0.25			
	B:1.0	B:0.6		C:0.6				
	D:0.25	D:0.2	E:0.2	E:0.2	V/E:0.25	V/E:0.25		
	C:0.6	C:0.5	D:0.3	D:0.2				
			C0.6					
	D:0.25	E:0.15	E:0.15	E:0.2	V/E:0.25			
	C:0.5	D:0.2	D:0.2	D:0.2				
		C:0.4	C:0.5					
	E:0.15	E:0.15	E:0.15	V/E:0.2	E:0.18			
	D:0.35	D:0.3	D:0.2	D:0.5				
	C:0.5	C:0.5						
	E:0.15	V/E:0.2	V/E:0.2	V/E:0.2	V:0.18			
	D:0.3							
	V/E:0.2	V/E:0.2	V/E:0.18	V/E:0.18				
	V/E:0.15	V/E:0.15	V/E:0.15					

EIECSOUND ELECTRONICS COMPANY LIMITED

TEL: 0086-755-83045964

FAX: 0086-755-82948027

Website: www.elecsound.com

sales@elecsound.com