

CA45 Series Solid Electrolyte Tantalum Chip Capacitor

Brief Introduction :

CA45 Series sinter-anode,molded solid tantalum chip capacitor, small size,

high capacitance , high reliability and excellent operation performances , is used

for telecommunications , computers , camcorder , SMT electric circuits and so on . CA45 Series meets the requirements of EIA Standard 535BAAC .



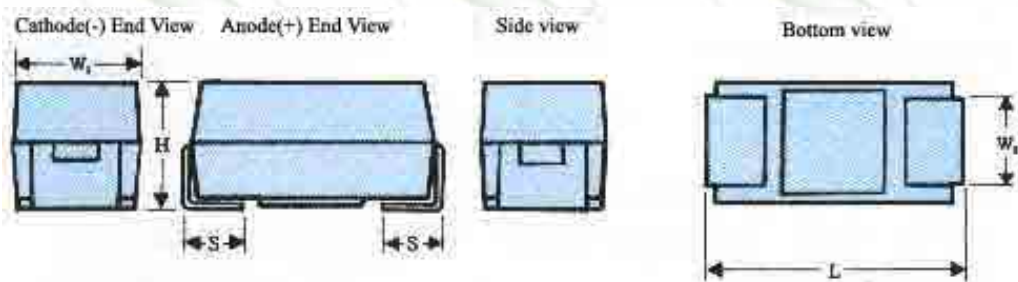
Features :

- Operating temperature Range : $-55 \sim +125$; > 85 With rated voltage derating .
- Capacitance tolerance : $\pm 20\%$; $\pm 10\%$ (for special order) ;
- DC leakage at 20 : $I_0 \leq 0.01CRVR$ or $0.5 \mu A$ (Whichever Is greater) .
- Dissipation factor at 20 : Please See Table 3
- Dimensions , rated voltage and nominal capacitors:

Please see Table & 2 and Figure 1.

- Temperature characteristics : See table 3
- ESR : See Table 4

Outline Drawings :



Dimensions-Millimeters

Table

Case Size	$L \pm 0.2$	$W1 \pm 0.2$	$H \pm 0.2$	$S \pm 0.2$	$W2 \pm 0.1$
S	2.0 ± 0.2	1.20 ± 0.2	1.20 ± 0.2	0.5 ± 0.3	1.2 ± 0.1
A	3.2 ± 0.2	1.6 ± 0.2	1.6 ± 0.2	0.8 ± 0.3	1.2 ± 0.1
B	3.5 ± 0.2	2.8 ± 0.2	1.9 ± 0.2	0.8 ± 0.3	2.2 ± 0.1

C	6.0 ± 0.3	3.2 ± 0.3	2.5 ± 0.3	1.3 ± 0.3	2.2(± 0.1
D	7.3 ± 0.3	4.3 ± 0.3	2.8 ± 0.3	1.3 ± 0.3	2.4 ± 0.1
E	7.3 ± 0.3	4.3 ± 0.3	4.0 ± 0.3	1.3 ± 0.3	2.4 ± 0.1

Rated Voltage, Voltage Derating, Surge Voltage and Normal Capacitance table 2-1

Rated voltage (V)	4	6.3	10	16	20	25	35	50
Voltage Derating (V)	2.5	4	6.3	10	13	16	23	33
Surge Voltage (V +85)	5	8	13	20	26	32	46	65
Surge Voltage (V +125)	3.4	5	9	12	16	20	26	38
Capacitance	Case size (Standard/Extended)							
0.1					S		A	A
0.15					S		A	B/A
0.22					S		A	B
0.33					S		A	B
0.47				S	S	A	B/A	C
0.68			S	S	A/S	A	B	C
1.0		A/S	A/S	A/S	A	B/A	B	C
1.5	S	A/S	A/S	A/S	B/A	B	C/B	D/C
2.2	S	A/S	A/S	B/A	B/A	B	C	D
3.3	A/S	A/S	B/A	B/A	C/B	C	D/C	D
4.7	A/S	B/A	B/A	B/A	D/C	C	D/C	E
6.8	B/A	B/A	B/A	C/B	D/C	D/C	D	
10	B/A	B/A	B/A	C/B	D	D/C	D	
15	B/A	C/B	C/B	C	D	D	E	
22	C/B	C/B	C/B	D/C	D	D	E	

33	C/B	D/C	D/C	D/C	D	E		
47	D/C	D/C	D/C	D/C	E/D			
68	D/C	D/C	D	D	E			
100	D/C	D/C	D	D				
150	D/C	D	E	E				
220	D	E	E	E				
330	E	E	E					
470	E							

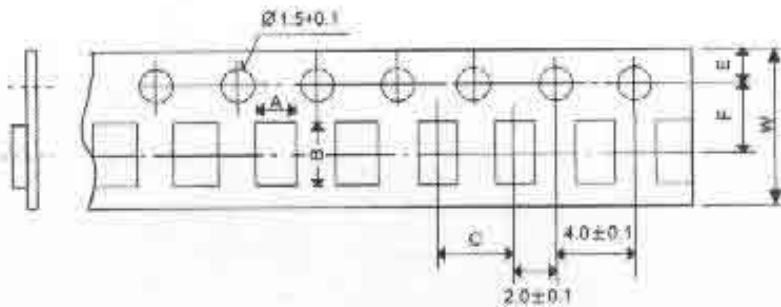
Temperature Charcteristics

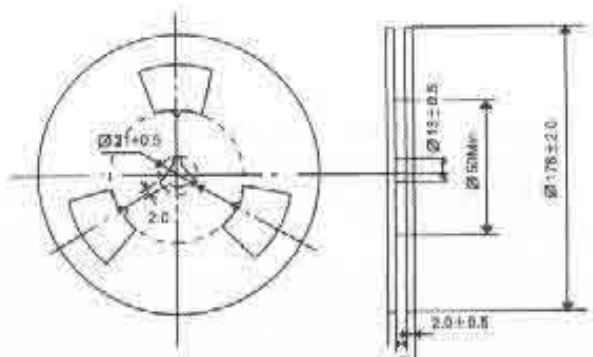
Capacitance (uF)	Cap. Change			DF Max.				DCL Max.	
	-55	+85	+125	-55	+20	+85	+125	+85	+125
≤ 1.0	-10	+10	+12	6	4	6	6	10I ₀	12I ₀
1.5-68				10	6	10	10		
100-470				12	8	12	12		

ESR Of Capacitor

Rated Voltage	4	6.3	10	16	20	25	35	50
Capacitance	Case size (Standard/Extended)							
0.1					25		24	22
0.15					25		21	17/15
0.22					25		18	14
0.33					25		15	12
0.47				25	25	14	10/12	8
0.68			30	25	12/25	10	8	7

Tape and Reel Dimensions :





Case size	A ± 0.2	B ± 0.2	C ± 0.2	E ± 0.2	F ± 0.2	W ± 0.2
S	1.6	2.4	4.0	1.75	3.5	8.0
A	1.9	3.5	4.0	1.75	3.5	8.0
B	3.1	3.8	4.0	1.75	3.5	8.0
C	3.6	6.4	8.0	1.75	5.5	12.0
D	4.7	7.7	8.0	1.75	5.5	12.0
D	4.6	7.6	8.0	1.75	5.5	12.0

Case size	W	Qty. per reel
A B	+1.5 8.4 -0.00	2000
C D	+2.00 12.4 -0.00	500
E	+2.00 12.4 -0.00	400
S	+2.00 12.4 -0.00	2500

Capacitor markings :

Direct designation is used for case sizes B、C、D、E while code designation is used for case size A and S.

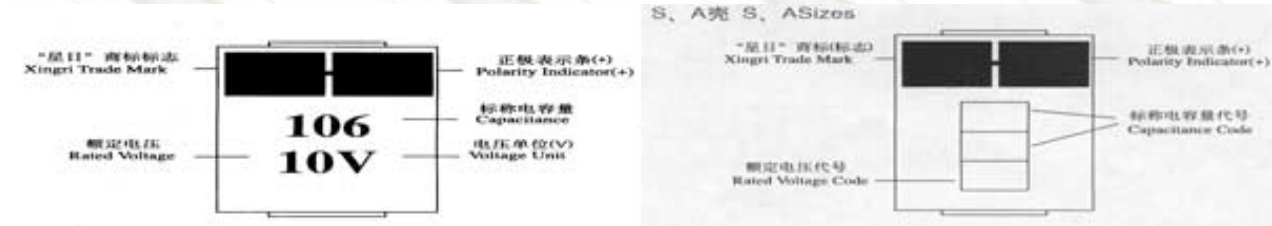
Rated Voltage Code

Rated Voltage (V)	4	6 . 3	10	16	20	25	35	50
Volatge Code	G	J	A	C	D	E	V	H

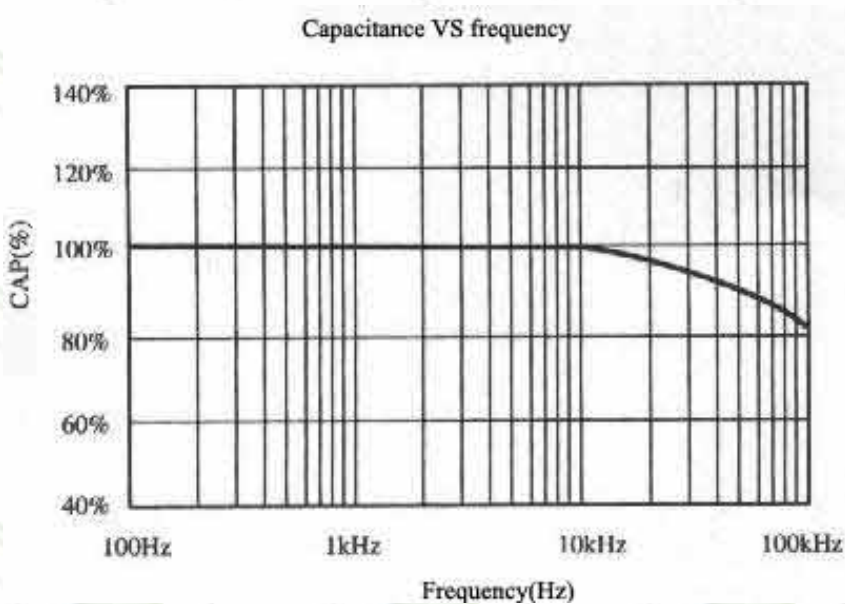
Capacitance (uF)	1	1.5	2.2	3.3	4.7	6.8
Capacitance Code	A	E	J	N	S	W

Multiplier	10 ⁴	10 ⁵	10 ⁶	10 ⁷
Second digit	4	5	6	7

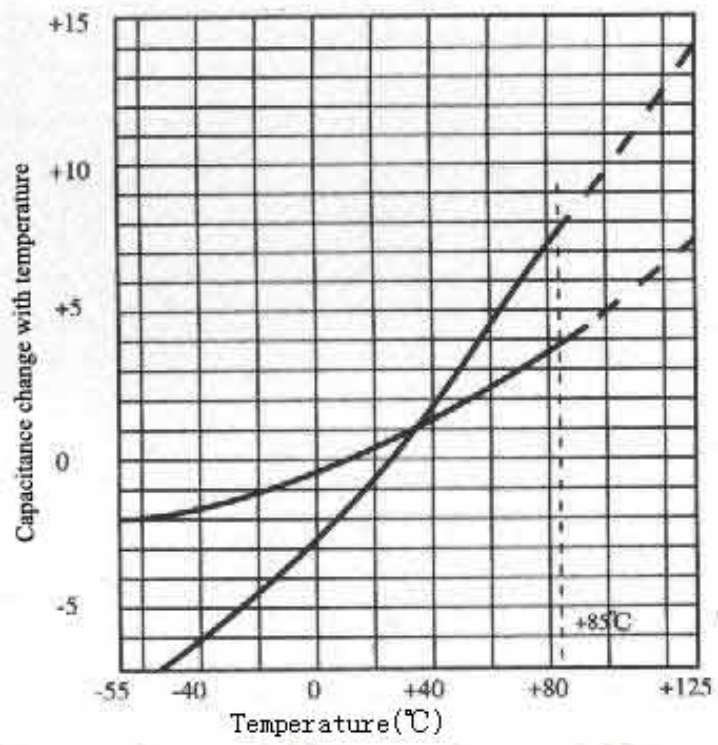
Exp : A6C: A represents nominal capacitance code, the second digit represents multiplier and the third digit represents rated voltage, that is : voltage 16V;Capacitance 1 × 106pF;16V1uF



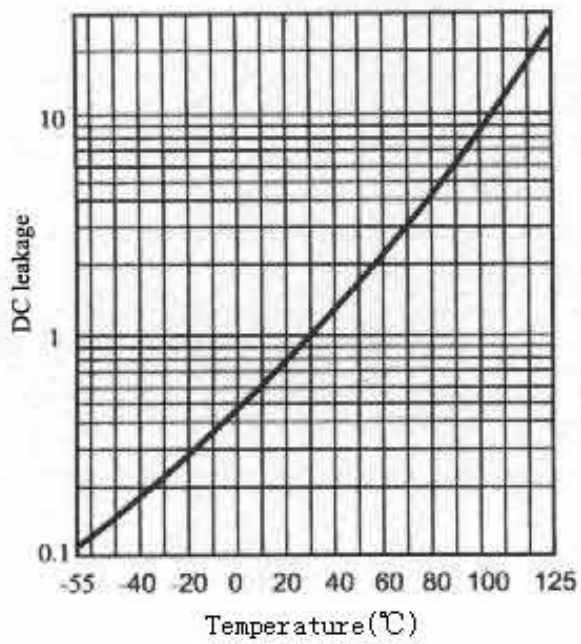
CHARACTERISTIC CURVE:



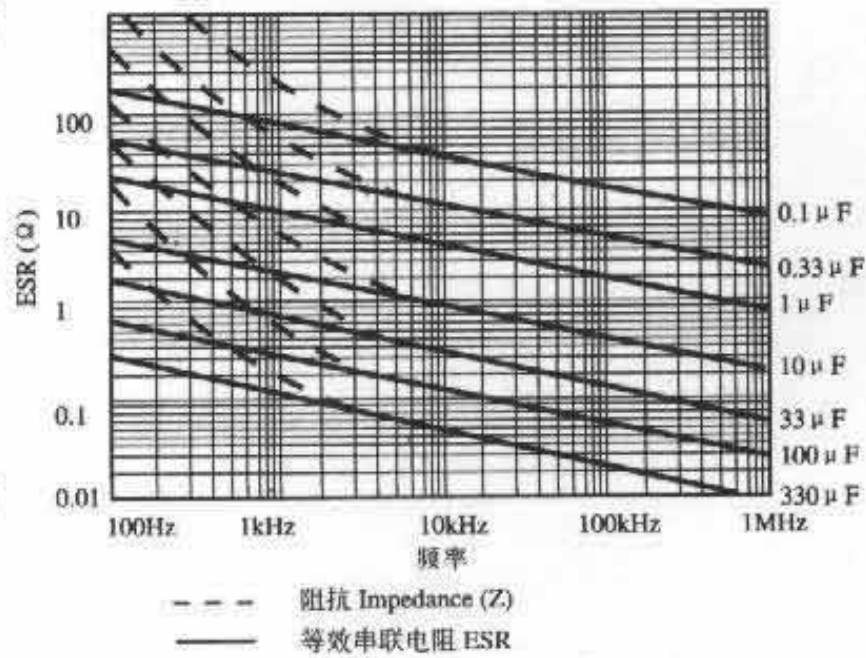
Capacitance change with temperature



DC leakage VS temperature



impedance VS frequency



[BACK](#)