

1. Scope:

This specification applies to CA45 series SMD Tantalum Capacitors produced by Shenzhen Be-Top Electronic Components Co., Ltd.



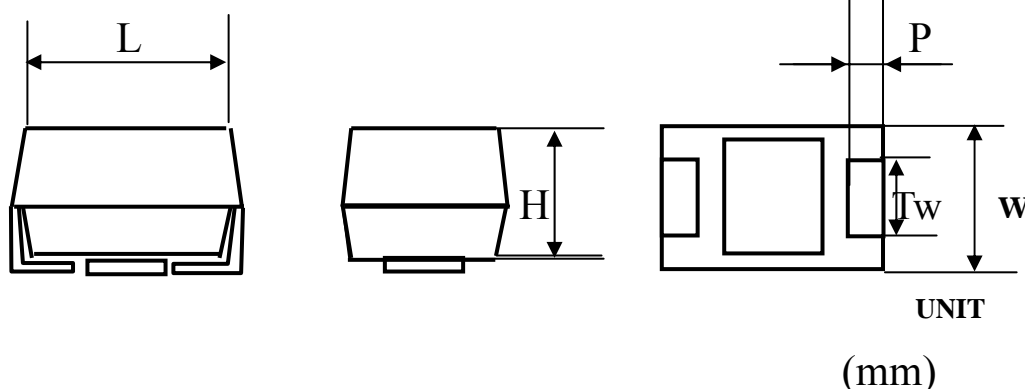
2. General Specification

- 1) Name of product: SMD Tantalum Capacitor form used in electronic equipment.
- 2) Name of series: CA45
- 3) Standard testing conditions:

Tests should be done at temperatures 5-35°C, humidity of 45-85%RH, and pressure of 860-1060mbar. But in the case of a discrepancy, the final decision should be made by the testing at temp of $20 \pm 2^\circ\text{C}$, humidity of 50-70%RH, and pressure of 860-1060mbar.

3. Drawing, Dimension and Product Size

- 1) drawing and dimension



CASE	EIA	L	W	H	P	T_w
S	2012	2.0 ± 0.2	1.2 ± 0.2	1.2 ± 0.2	0.58 ± 0.3	1.2 ± 0.1
A	3216	3.2 ± 0.2	1.6 ± 0.2	1.6 ± 0.2	0.8 ± 0.3	1.2 ± 0.1
B	2528	3.5 ± 0.2	2.8 ± 0.2	1.9 ± 0.2	0.8 ± 0.3	2.2 ± 0.1
C	6032	6.0 ± 0.3	3.2 ± 0.3	2.5 ± 0.3	1.3 ± 0.3	2.2 ± 0.1
D	7343	7.3 ± 0.3	4.3 ± 0.3	2.8 ± 0.3	1.3 ± 0.3	2.4 ± 0.1
E	7343	7.3 ± 0.3	4.3 ± 0.3	4.0 ± 0.3	1.3 ± 0.3	2.4 ± 0.1

4. Performance Characteristics:

ITEM	CHARACTERISTICS
Operating Temp Range	$-55^\circ\text{C} \sim +125^\circ\text{C}$
Capacitance Tolerance	$\pm 20\%$ (M) $\pm 10\%$ (K)
ESR	Ω

Leakage Current	Less then 0.01CV or 0.5 μ A whichever is greater
Dissipation Factor (tg δ)	CAP \leq 1 μ f: tg δ \leq 4%; 1.5-68 μ f: tg δ \leq 6%. CAP \geq 100 μ f: tg δ \leq 8%.
Solderability	Solder temperature:245 \pm 3 $^{\circ}$ C , Immersion times:3 \pm 0.5s ; The dipped portion of the termination is at least 95%

Rated Voltage, Voltage Derating, and Surge Voltage

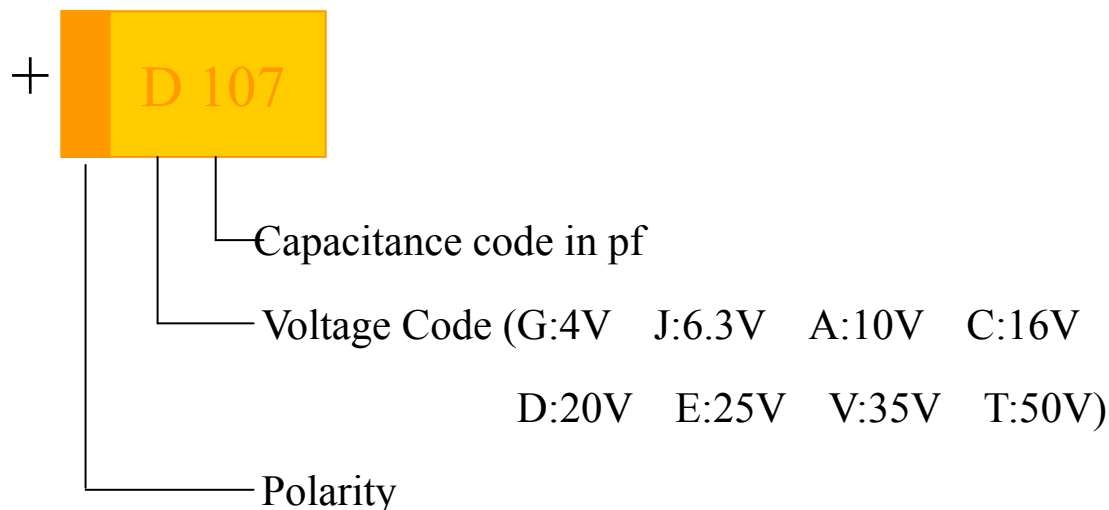
Rated Voltage	4	6.3	10	16	20	25	35	50
Voltage	2.5	4.0	6.3	10	13	16	23	33
Surge	5.0	8.0	13.0	20	26	32	46	65
Surge	3.4	5.0	9.0	12	16	20	26	38

2) Product size

VDC μ F	0.1-0.33	0.47	0.68	1.0	1.5	2.2	3.3	4.7	6.8	10	15	22	33	47	68	100	150
4				S	SA	SA	SA	SBA	SBA	B	CB	C	DC	DC	DC	DC	DC
6.3				S	SA	SA	SA	SBA	SBA	SBA	CB	CB	DC	DC	DC	DC	D
10			S	SA	SA	SA	SBA	BA	BA	CB	C	C	DC	DC	D	D	E
16		S	SA	SA	SA	BA	BA	B	CB	C	C	DC	D	D	D	D	E
20	S	SA	SA	A	B	B	B	CB	C	DC	D	D	D	D	E	E	E
25	A	A	A	BA	B	B	CB	C	DC	DC	D	D	DE	DE	E	E	
35	A	BA	B	B	C	C	C	DC	D	D	DE	DE	E	E	E	E	
50	BA	C	C	C	DC	D	D	DE	DE	DE	E	E					

BLACK IS STANDARD RANGE, RED IS EXTENDED RANGE.

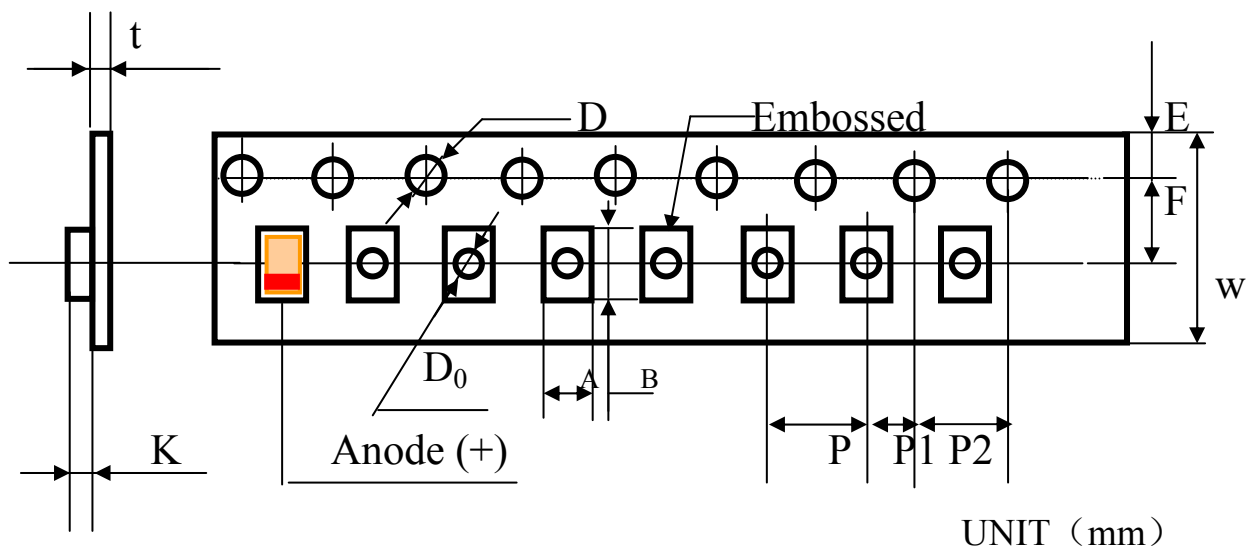
5. Marking



6. Taping and Packing

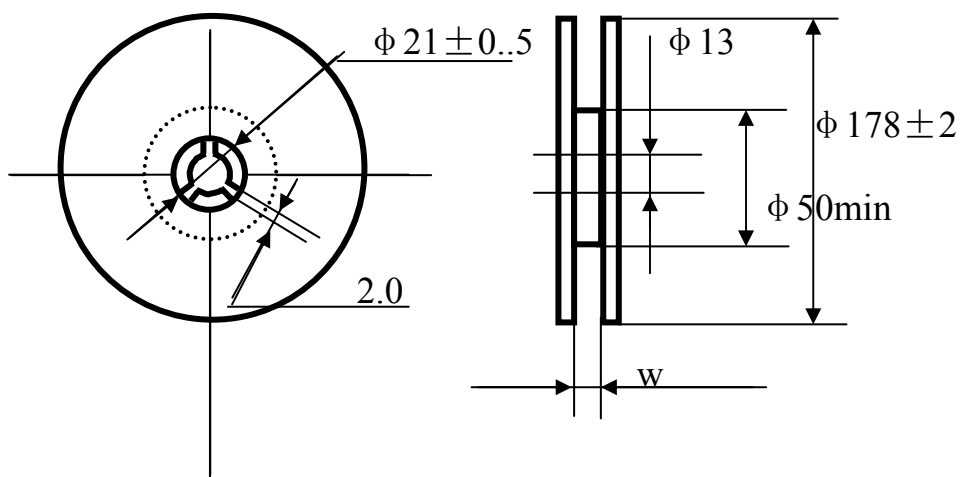
1) Carrier tape

Carrier tape dimension (next page)



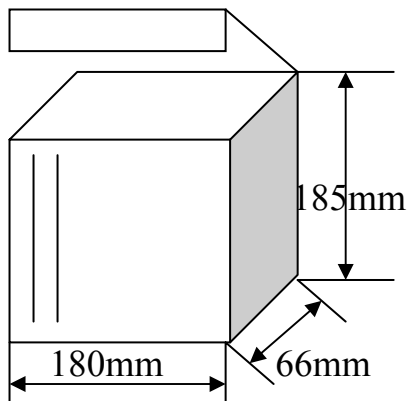
Case code	$W \pm 0.3$	$F \pm 0.1$	$E \pm 0.1$	$P \pm 0.1$	$P1 \pm 0.1$	$P2 \pm 0.1$	$D \pm 0.1$	D_{\min}	$t \pm 0.3$	$A \pm 0.2$	$B \pm 0.2$	$K \pm 0.2$
S	8	3.5	1.75	4	2	4	$\phi 1.5$	$\phi 1.0$	0.2	1.6	2.4	1.6
A	8	3.5	1.75	4	2	4	$\phi 1.5$	$\phi 1.0$	0.2	1.9	3.5	1.9
B	8	3.5	1.75	4	2	4	$\phi 1.5$	$\phi 1.0$	0.3	3.1	3.8	2.1
C	12	5.5	1.75	8	2	4	$\phi 1.5$	$\phi 1.5$	0.3	3.6	6.4	3.0
D	12	5.5	1.75	8	2	4	$\phi 1.5$	$\phi 1.5$	0.3	4.7	7.7	3.3
E	12	5.5	1.75	8	2	4	$\phi 1.5$	$\phi 1.5$	0.3	4.5	7.6	3.3

2) Reel Specification



Case size	W	Qty/reel (178mm)
A、B	8.4+1.5	2000
C、D、E	12.4+2	500
S	8.4+1.5	2500

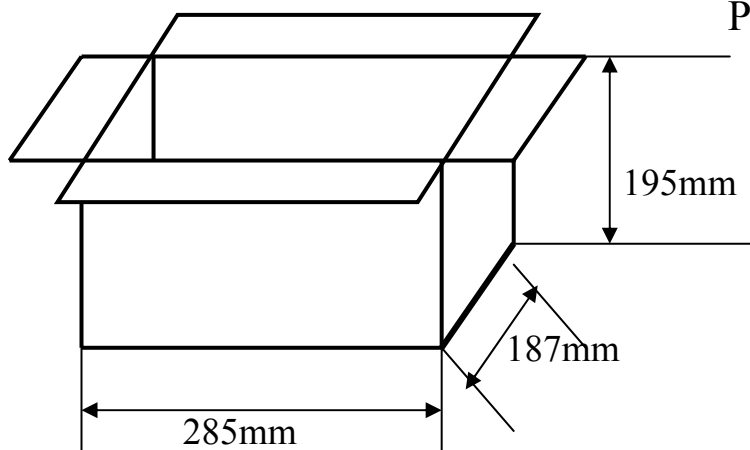
3) Inner box



Packing specification of inner box

- 1) A、 B、 S size: 5 reels
- 2) C、 D 、 E size: 4 reels

4) Outer box



Packing specification of outer box

- 1) A、 B 、 S size:4 inside box
- 2) C、 D 、 E size:4 inside box

7. How to Order

<u>CA45</u>	<u>106</u>	<u>M</u>	<u>035</u>	<u>D</u>	<u>T</u>
TYPE	CAPACITANCE	CAPACITANCE TOLERANCE	RATED VOLTAGE	CASE CODE	PACKAGING
This is expressed in Pico farads. The first two digits are the significant figures. The third is the number of zeros to follow.		M=±20% K=±10%	4V=004 6.3V=006 10V=010 16V=016 25V=025 35V=035 50V=050	See product size table	T=Tape and Reel