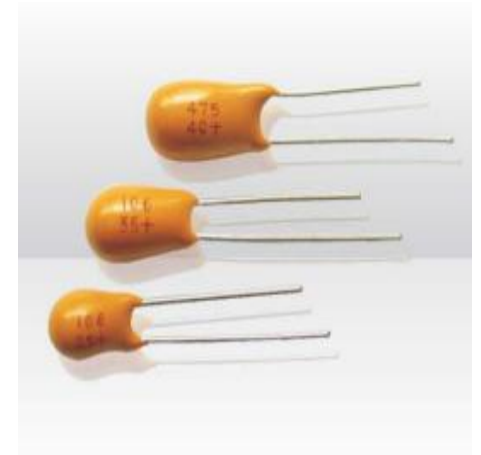


## CA42 Series

### Resin Dipped , Lead Tantalum Capacitors

#### Feature

- Epoxy-Coated, Radial-lead, Polarized;
- Stable in electrical & storage performances , Small in size, Long life-span, High reliability;
- Applying in TV sets, Telephones, Camcorders, Instruments and Meters, such Electrical Equipments with High- reliable SMT DC& Impulse high-density assembled printed Circuit for Military use;
- RoHS Compliant and lead-free terminations
- Operative Standard: QJ/PWV61-2002



#### How to order

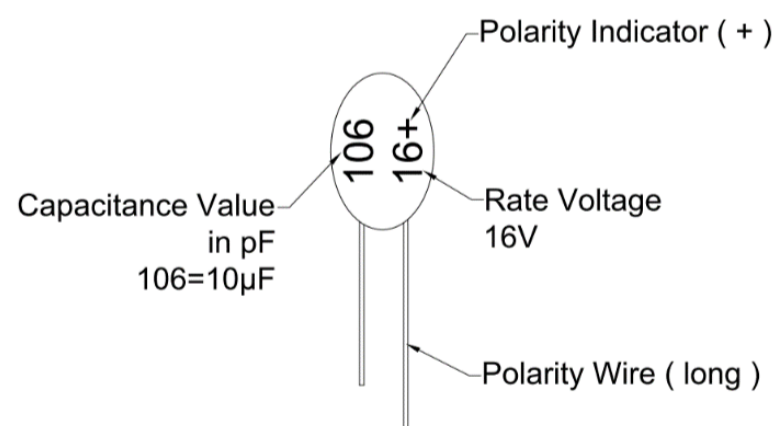
<b>CA42</b>	<b>-</b>	<b>D</b>	<b>010</b>	<b>M</b>	<b>107</b>	<b>B</b>
Type	Separator	Case Size	Rated DC voltage	Tolerance	Capacitance Code	Package
			2R5=2.5Vdc; 004=4Vdc; 6R3=6.3Vdc; 010=10Vdc 016=16Vdc; 020=20Vdc 025=25Vdc; 035=35Vdc 050=50Vdc; 063=63Vdc 075=75Vdc; 100=100Vdc	K=±10% M=±20%	pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)	T=Reel B=Bulk

#### Environmental Compliance

RoHS Compliant (6/6) according to Directive 2002/95/EC when ordered with 100%Sn solder, Gold plated or Non-magnetic 100% Sn solder.



#### Marking

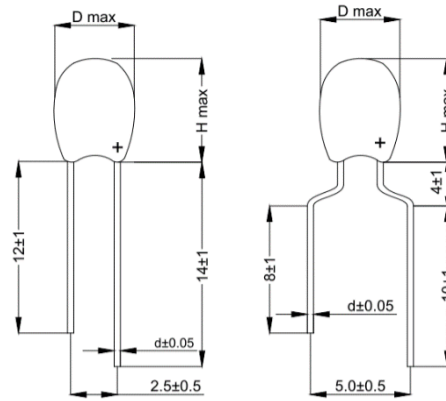


#### Technical Specifications

Technical Data: All technical data relate to an ambient temperature of +25C°

Capacitance Range:	0.47µF to 680µF								
Capacitance Tolerance:	±10% ; ±20% (±5% consult your Xiangyee representative for details)								
Rated Voltage DC (V <sub>R</sub> )	≤+85C°	4	6.3	10	16	25	35	40	50
Category Voltage (V <sub>C</sub> )	≤+125C°	2.5	4	6.3	10	16	20	25	32
Surge Voltage (V <sub>S</sub> )	≤+85C°	5	8	13	20	32	46	52	65
Surge Voltage (V <sub>S</sub> )	≤+125C°	3	5	8	12	19	28	31	39
Temperature Range	-55 to +125C°								

Dimensions(mm)



Capacitance and rated voltage range

Rated Voltage $U_R$ (V)				4	6.3	10	16	25	35	40	50
Category Voltage $U_C$ (V)				2.5	4	6.3	10	16	20	25	32
Dimensions (mm)				Normal Capacitance ( $\mu F$ )							
Case Code	D x H	d	S								
A	4.4 x 6.5	0.5	2	4.7	2.2	1.5	1	0.47	0.47	0.47	0.47
				6.8	3.3	2.2	1.5	0.68	0.68	0.68	
				10	4.7	3.3	2.2	1	1		
				15	6.8	6.8	3.3	1.5	1.5		
				22	10	10	4.7	2.2			
				33	15	15	6.8	3.3			
B	5.0 x 7.5	0.5	2	47	33	22	15	4.7	2.2	1	0.68
				68	47	33	22	6.8	3.3	1.5	1
								10	4.7	2.2	1.5
C	5.5 x 9.0	0.5	2.5	100	68	47	33	15	6.8	3.3	2.2
				150	100	68	47	22	10	4.7	3.3
						100					
D	6.3 x 10.5	0.5	2.5	220	150	150	68	33	15	6.8	4.7
				330	220		100	47	22	10	6.8
E	7.2 x 12	0.5	5	470	330	220	150	68	33	15	10
				680	470	330	220	100	47	22	15
F	8.5 x 13	0.5	5		680	470	330	150	68	33	22

Characteristics at low and high Temperature

Capacitance Range ( $\mu F$ )	Capacitance change $\Delta C/C$ (%)			Dissipation factor (%)				DC leakage	
	-55C°	+85C°	+125C°	-55C°	+25C°	+85C°	+125C°	+85C°	+125C°
0.47 ~ 1.0	±10	±10	±15	6	4	6		8I <sub>0</sub> <sup>(1)</sup>	10I <sub>0</sub>
1.5 ~ 6.8				8	6	8			
10 ~ 68				10	8	10			
100 ~ 330				12	10	12			
470 ~ 680				14	12	14			
> 680				16	14	16			

(1) I<sub>0</sub> refer to initial value of DC leakage current

## Dimension of Tape and Reel

Symbol	Dimensions ( mm )	Symbol	Dimensions ( mm )
P	12.7±1.0	D	4.0±0.2
P <sub>0</sub>	12.7±0.3	T	0.5±0.2
W	18	+1.0	Δh
		-0.5	
H <sub>1</sub>	16±0.5	S	2.50±0.5 , 5.00±0.7
W <sub>0</sub>	5 Minimum	P <sub>1</sub>	5.10±0.5 , 3.85±0.7
H <sub>2</sub>	9	+0.75	P <sub>2</sub>
		-0.50	
W <sub>2</sub>	0	+1	ΔP
		-0	
H	32.5 Maximum		±1.3 Maximum

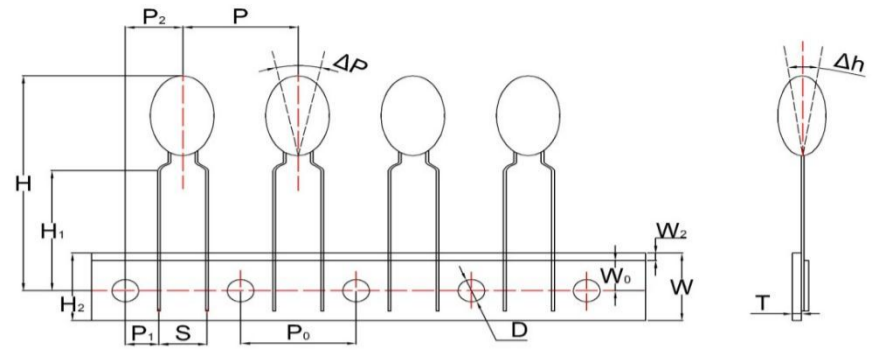


Figure Dimension of tape and reel

## Soldering Process

Profile Feature	Pb-free Assembly	SnPb Assembly
Pre-heating	50~165C° 90~120sec.	50~165C° 90~120sec.
Max. Peak Temperature	250~260C°	240~250C°
Time of wave	3~5sec. (max. 10sec.)	3~5sec. (max. 10sec.)

The upper side temperature of the board should not exceed +150C°.

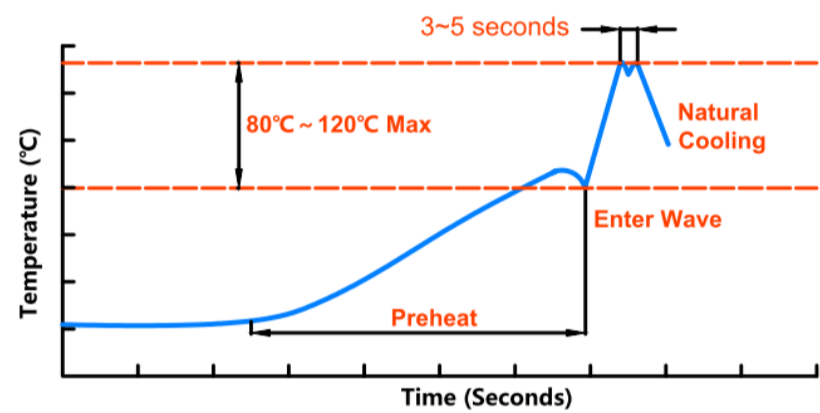


Figure Recommended wave profile

## Storage

Tantalum dielectric chip capacitors are unaffected by the following storage condition for 2 years:

Temperature: -10°C – +50°C Humidity: 75% RH maximum

Atmospheric pressure: 860 mbar ~ 1060mbar

Tantalum capacitors exhibit a very low random failure rate after long periods of storage and apart from this there are no known modes of failure under normal storage conditions. All capacitors will withstand any environmental conditions within their ratings for the periods given in the detail specifications. Storage for longer periods under high humidity conditions may affect the leakage current of resin protected capacitors. Solderability of solder coated surfaces may be affected by storage of excess of 2 years.