

Series CB

Epoxy-Coated Solid Electrolytic Tantalum Capacitors Resin Dipped Type



FEATURES:

- Lead-Free. (ROHS. REACH)
- Specially designed of general purpose.
- Highly reliable resin dipped type.
- Excellent frequency and temperature characteristics.
- Non-flammable epoxy resin.(UL-94-V-O)

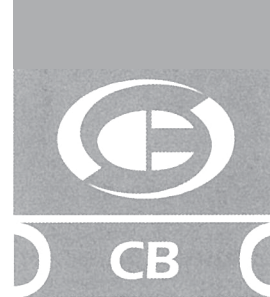


SPECIFICATIONS:

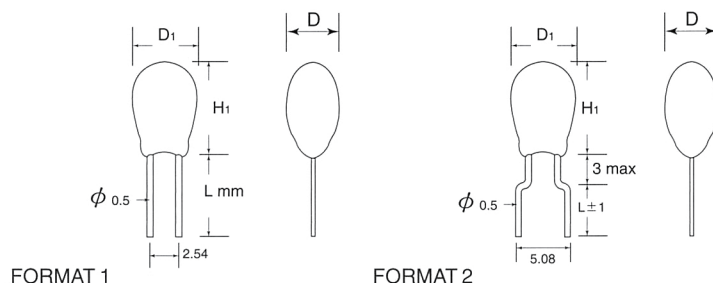
Item	Performance Characteristics																																		
Operating Temperature Range	-55 to + 125°C (>85°C with rated voltage derating)																																		
Rated Working Voltage Range	6.3 to 50 V DC																																		
Nominal Capacitance Range	0.1 to 330 μF																																		
Capacitance Tolerance	±20% (±10% is available) (120Hz, +20°C)																																		
Leakage Current	Not more than 0.01CV [μA] or 0.5μA whichever is greater																																		
tan δ (120Hz, +20°C)	Working voltage	6.3 to 50 V																																	
	Capacitance	≤ 1.0μF	1.5 to 6.8 μF	10 to 68μF	≥100μF																														
	tan δ max.	0.04	0.06	0.08	0.1																														
Characteristics at High and Low Temperature	-55°C	Capacitance change	±12% of initial measured value at +20°C																																
	+105°C	Leakage current	≤10% of initial measured value																																
		Capactiance change	±12% of initial measured value at +20°C																																
Moisture Resistance	Test conditions																																		
	Relative humidity : 90 to 95% without load																																		
	Ambient temperature : +40°C																																		
	Duration : 500 hours																																		
	Post test requirements at + 20°C																																		
	Leakage current : ≤ 0.012CV or 0.75 [μF], whichever is greater																																		
	Capacitance change : ± 10% of initial measured value																																		
	tan δ : ≤ 150% of Inital specified value																																		
Endurance	Test conditions																																		
	<table><tr><td>Conditions</td><td colspan="2">Derating (for 10 to 50V only)</td><td colspan="2">Rating</td></tr><tr><td>Item</td><td colspan="2"></td><td colspan="2"></td></tr><tr><td>Duration</td><td colspan="2">1000 hours</td><td colspan="2">1000 hours</td></tr><tr><td>Ambient temperature</td><td colspan="2">+ 105°C</td><td colspan="2">+ 85°C</td></tr><tr><td>Applied voltage</td><td colspan="2">Derated working voltage</td><td colspan="2">Rated working voltage</td></tr><tr><td>Source impedance</td><td colspan="2">1Ω/V</td><td colspan="2">1Ω/V</td></tr></table>					Conditions	Derating (for 10 to 50V only)		Rating		Item					Duration	1000 hours		1000 hours		Ambient temperature	+ 105°C		+ 85°C		Applied voltage	Derated working voltage		Rated working voltage		Source impedance	1Ω/V		1Ω/V	
	Conditions	Derating (for 10 to 50V only)		Rating																															
	Item																																		
	Duration	1000 hours		1000 hours																															
	Ambient temperature	+ 105°C		+ 85°C																															
	Applied voltage	Derated working voltage		Rated working voltage																															
	Source impedance	1Ω/V		1Ω/V																															
	Derating voltage + 105°C for 10~50V working																																		
	<table><tr><td>Working voltage [V] DC</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>Derating voltage [V] DC</td><td>6.3</td><td>10</td><td>16</td><td>23</td><td>33</td></tr></table>					Working voltage [V] DC	10	16	25	35	50	Derating voltage [V] DC	6.3	10	16	23	33																		
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Derating voltage [V] DC	6.3	10	16	23	33																														
Post test requirements at +20°C																																			
Leakage current : ≤ 0.01% CV or 00625[μA], whichever is greater																																			
Capacitance change : ± 10% of initial measured value																																			
tan δ : ≤ Initial specified value																																			
Shelf Life	Test conditions																																		
	Post test requirements at +20°C																																		
	Duration : 1000 hours																																		
	Ambient temperature : +85°C																																		
	Applied voltage : (none)																																		
Same limits for "Endurance".																																			

Series CB

Epoxy-Coated Solid Electrolytic Tantalum Capacitors Resin Dipped Type



Tantalum Capacitor Dipped Type Outline Drawings



Dimensions Millimeters

Case Size	A	B	C	D	E	F
Formats 1/2						
H1 max	7.0	8.0	9.5	11.0	13.0	16.5
D1 max	4.5	5.0	5.5	6.5	8.5	9.5
D max	4.2	4.7	5.5	6.5	8.5	9.5

Wire Length (L)	5,7±1	>12,14
Code	A	B

Rated Voltage, Capacitance of Capacitors.

VR (V)	6.3	10	16	25	35	50
Code	0J	1A	1C	1E	1V	1H
Capacitance (μF)	Case Size					
0.10 (104)					A	A
0.15 (154)					A	A
0.22 (224)					A	A
0.33 (334)					A	A
0.47 (474)					A	A
0.68 (684)					A	A
1.0 (105)				A	A	B
1.5 (155)			A	A	A	C
2.2 (225)		A	A	A	B	C
3.3 (335)	A	A	A	B	B	D
4.7 (475)	A	A	B	B	C	D
6.8 (685)	A	B	B	C	D	E
10 (106)	B	B	B	C	D	E
15 (156)	B	C	C	D	E	F
22 (226)	C	C	C	D	E	F
33 (336)	C	D	D	E	F	F
47 (476)	D	D	D	E	F	
68 (686)	D	D	E	F	F	
100 (107)	E	E	E	F		
150 (157)	E	E	F			
220 (227)	E	F	F			
330 (337)	F	F				
470 (477)	F	F				
680 (687)	F					

Leads & Solderability
Tinned radial leads, ϕ :0.5mm.

temperature: 260°C
-Time of immersion: 3s

Series CB

Epoxy-Coated Solid Tantalum Capacitors Resin Dipped Type

Ratings and Part Number Reference

Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
6.3 volt @ 85°C (4 volt, @ 125°C)					
CB 0J335##A##	A	3.3	0.5	6	13.0
CB 0J475##A##	A	4.7	0.5	6	10.0
CB 0J685##A##	A	6.8	0.5	6	8.0
CB 0J106##B##	B	10	0.6	8	6.0
CB 0J156##B##	B	15	0.9	8	5.0
CB 0J226##C##	C	22	1.4	8	3.7
CB 0J336##C##	C	33	2.1	8	3.0
CB 0J476##D##	D	47	3.0	8	2.0
CB 0J686##D##	D	68	4.3	8	1.8
CB 0J107##E##	E	100	6.3	10	1.6
CB 0J157##E##	E	150	9.5	10	0.9
CB 0J227##E##	E	220	13.9	10	0.9
CB 0J337##F##	F	330	20.8	10	0.7
CB 0J477##F##	F	470	29.6	10	0.6
CB 0J687##F##	F	680	42.8	12	0.5
10 volt @ 85°C (6.3 volt, @ 125°C)					
CB 1A225##A##	A	2.2	0.5	6	13.0
CB 1A335##A##	A	3.3	0.5	6	10.0
CB 1A475##A##	A	4.7	0.5	6	8.0
CB 1A685##B##	B	6.8	0.7	6	6.0
CB 1A106##B##	B	10	1.0	8	5.0
CB 1A156##C##	C	15	1.5	8	3.7
CB 1A226##C##	C	22	2.2	8	2.7
CB 1A336##D##	D	33	3.3	8	2.1
CB 1A476##D##	D	47	4.7	8	1.7
CB 1A686##D##	D	68	6.8	8	1.3
CB 1A107##E##	E	100	10.0	10	1.0
CB 1A157##E##	E	150	15.0	10	0.8
CB 1A227##F##	F	220	22	10	0.8
CB 1A337##F##	F	330	33	10	0.6
CB 1A477##F##	F	470	47	10	0.5
16 volt @ 85°C (10 volt, @ 125°C)					
CB 1C155##A##	A	1.5	0.5	6	10.0
CB 1C225##A##	A	2.2	0.5	6	8.0
CB 1C335##A##	A	3.3	0.5	6	6.0
CB 1C475##B##	B	4.7	0.8	6	5.0
CB 1C685##B##	B	6.8	1.1	6	4.0
CB 1C106##B##	B	10	1.6	8	3.2
CB 1C156##C##	C	15	2.4	8	2.5
CB 1C226##C##	C	22	3.5	8	2.0
CB 1C336##D##	D	33	5.3	8	1.6
CB 1C476##D##	D	47	7.5	8	1.3
CB 1C686##E##	E	68	10.9	8	1.0
CB 1C107##E##	E	100	16	10	0.8
CB 1C157##F##	F	150	24	10	0.6
CB 1C227##F##	F	220	35.2	10	0.5

Part No.	Case Size	Capacitance μF	DCL (μF) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
25 volt @ 85°C (16 volt, @ 125°C)					
CB 1E105##A##	A	1.0	0.5	4	10.0
CB 1E155##A##	A	1.5	0.5	6	8.0
CB 1E225##A##	A	2.2	0.6	6	6.0
CB 1E335##B##	B	3.3	0.8	6	5.0
CB 1E475##B##	B	4.7	1.2	6	4.0
CB 1E685##C##	C	6.8	1.7	6	3.1
CB 1E106##C##	C	10	2.5	8	2.5
CB 1E156##D##	D	15	3.8	8	2.0
CB 1E226##D##	D	22	5.5	8	1.5
CB 1E336##E##	E	33	8.3	8	1.2
CB 1E476##E##	E	47	11.8	8	1.0
CB 1E686##F##	F	68	17.0	8	0.8
CB 1E107##F##	F	100	25	10	0.8
35 volt @ 85°C (23 volt, @ 125°C)					
CB 1V104##A##	A	0.1	0.5	4	26.0
CB 1V154##A##	A	0.15	0.5	4	21.0
CB 1V224##A##	A	0.22	0.5	4	17.0
CB 1V334##A##	A	0.33	0.5	4	15.0
CB 1V474##A##	A	0.47	0.5	4	13.0
CB 1V684##A##	A	0.68	0.5	4	10.0
CB 1V105##A##	A	1.0	0.5	4	8.0
CB 1V155##A##	A	1.5	0.5	6	6.0
CB 1V225##B##	B	2.2	0.8	6	5.0
CB 1V335##B##	B	3.3	1.2	6	4.0
CB 1V475##C##	C	4.7	1.6	6	3.0
CB 1V685##D##	D	6.8	2.4	6	2.5
CB 1V106##D##	D	10	3.5	8	2.0
CB 1V156##E##	E	15	5.3	8	1.6
CB 1V226##E##	E	22	7.7	8	1.3
CB 1V336##F##	F	33	11.6	8	1.0
CB 1V476##F##	F	47	16.5	8	0.8
CB 1V686##F##	F	68	23.8	8	0.7
50 volt @ 85°C (33 volt, @ 125°C)					
CB 1H104##A##	A	0.1	0.5	4	26.0
CB 1H154##A##	A	0.15	0.5	4	21.0
CB 1H224##A##	A	0.22	0.5	4	17.0
CB 1H334##A##	A	0.33	0.5	4	15.0
CB 1H474##A##	A	0.47	0.5	4	13.0
CB 1H684##A##	A	0.68	0.5	4	10.0
CB 1H105##B##	B	1.0	0.5	4	8.0
CB 1H155##C##	C	1.5	0.8	6	6.0
CB 1H225##C##	C	2.2	1.1	6	3.5
CB 1H335##D##	D	3.3	1.7	6	3.0
CB 1H475##D##	D	4.7	2.4	6	2.5
CB 1H685##E##	E	6.8	3.4	6	2.0
CB 1H106##E##	E	10	5.0	8	1.6
CB 1H156##F##	F	15	7.5	8	1.2
CB 1H226##F##	F	22	11	8	1.0
CB 1H336##F##	F	33	16.5	8	0.9

NOTE: All ## A ## to ambient temperature of + 20°C measured at 120Hz, 0.5V rms unless otherwise stated

- insert capacitance tolerance; K for $\pm 10\%$ and M for $\pm 20\%$
- insert format 1. for pitch 2.54mm; format 2. for pitch 5.08mm
- insert wire length see page 8
- insert Bulk: Code B or Ammo pack: Code T

Series CB

Epoxy-Coated Solid Tantalum Capacitors Resin Dipped Type

Packaging of bead tantalum capacitors Explanation Of Part Numbers

<u>C B</u>	<u>O J</u>	<u>4 7 5</u>	<u>M</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>B&T</u>
Series Code	Rated Voltage	Nominal Capacitance	Capacitance Tolerance	Format & lead space	Size Code	Wire Length	Bulk & Ammo pack

Quantity per bag: Code B

The capacity of the plastic bags depends on

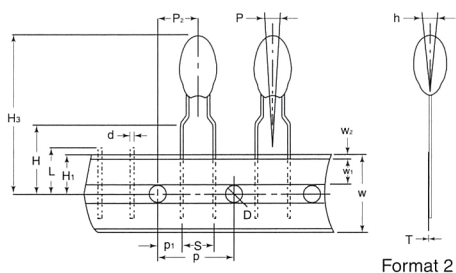
CASE SIZE FORMAT ①	Qty per bag (cut ≤ 7mm)
From A to B	1000
From C to D	1000
From E to F	500

CASE SIZE FORMAT ①	Qty per bag (cut ≥ 14mm)
From A to B	1000
From C to D	500
From E to F	250

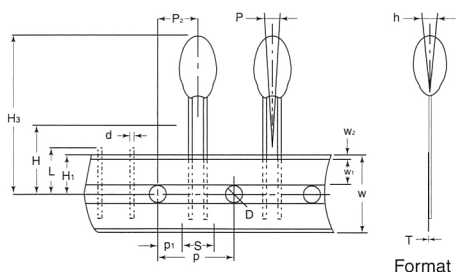
CASE SIZE FORMAT ②	Qty per bag (cut ≥ 7mm)
From A to B	1000
From C to D	500
From E to F	250

TAPE & AMMO PACKING (conform to: IEC286-2) Code T.

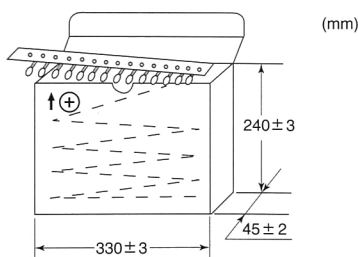
Tape & Ammo Packing (conform to: IEC286 - 2)



Format 2



Format 1



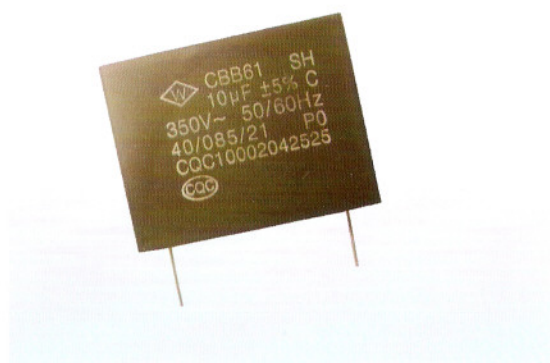
(mm)

Item	Code	Dimension (mm)
Carrier tape width	W	18.0 ^{+1.0} _{-0.5}
Hold down tape width	W ₁	6.0 ± 0.5
Hold down tape position	W ₂	1.0max
Feed hole diameter	D	4.0 ± 0.2
Feed hole pitch	P	12.7 ± 0.3
Hole center to lead	P ₁	Format 1: 5.05 ± 0.7
		Format 2: 3.85 ± 0.7
Hole center to component center	P	6.35 ± 1.0
Lead wire clench height	H	16 ± 0.5
Hole position	H ₁	9.0 ± 0.5
Base of component height	H ₂	0.8min
Component height	H ₃	32.2max
Component alignment	ΔP	0 ± 1.3
	Δh	0 ± 2.0
Lead spacing	S	'S' wires: 2.5 ^{+0.6} _{-0.1}
		'B' wires: 5.0 ^{+0.6} _{-0.5}
Lead diameter	d	0.5 ± 0.05
length of snipped lead	L	11.0max
Carrier tape thickness	T	0.5 ± 0.1

Case Code	A	B~C	D~F
QTY. (PCS/box)	2500	2000	1000

MOTO SERIES金屬化聚丙烯膜啟動電容器系列

METALLIZED POLYPROPYLENE FILM AC MOTOR CAPACITOR(BOX-TYPE) TYPE:CBB61



特點 Features

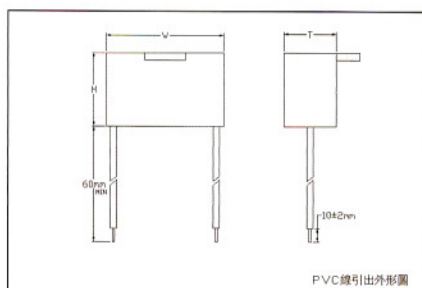
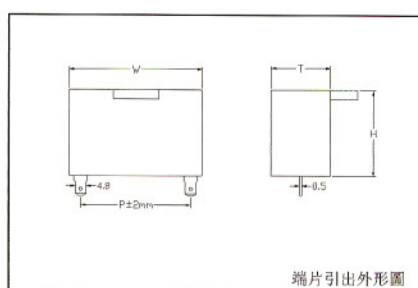
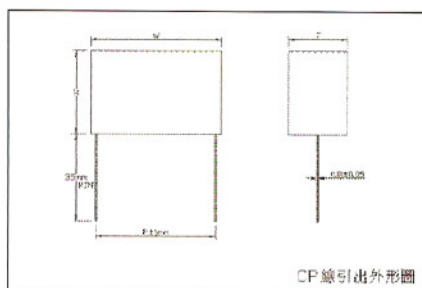
- 金屬化聚丙烯薄膜。
- 可靠性高及穩定性極佳。
- 有自愈性。
- 適用於頻率為50Hz/60Hz交流電源供電的單相電動機啟動和運轉。
- Polypropylene film
- High reliability and excellent long term stability.
- Self-healing prope
- Widely applied starting and running of Ac single-phase, synshronism motor at 50Hz/60Hz frequency power

技術參數 Specifications

引用標準 (Reference Standard)	GB/T3667.1(IEC60252-1)	
氣候類別/阻燃等級 (Climatic Category Passive Flammability Class)	40/85/21/C	
容量範圍 (Capacitance Range)	1.0UF~10UF	
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10%	
額定電壓 Rated Voltage	250VAC、300VAC、350VAC、400VAC、450VAC	
運行等測級 (Class of Operation)	Class C (3000H)	
安全防護等級 (Class of safety protection)	P0	
耐電壓 (Voltage proof)	引綫之間	UR×200% (10S)
	機殼之間	2000VAC(60S)
損耗角正切 (Dissipation Factor)	≤0.0020 (1KHz,25℃)	
絕緣電阻 (Insulation Resistance)	≥3000S (100VDC,1min,25℃)	

MOTO SERIES金屬化聚丙烯膜啓動電容器系列

外形圖 Outline Drawing



外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
105	450	38.0	26.0	16.0	32	0.8
125	450	38.0	26.0	16.0	32	0.8
155	450	38.0	26.0	16.0	32	0.8
185	450	38.0	26.0	16.0	32	0.8
205	450	38.0	28.0	18.0	32	0.8
225	450	38.0	28.0	18.0	32	0.8
255	450	38.0	28.0	18.0	32	0.8
275	450	38.0	28.0	18.0	32	0.8
305	450	38.0	30.0	20.0	32	0.8
355	450	38.0	30.0	20.0	32	0.8
405	450	48.0	30.0	20.0	42	0.8
455	450	48.0	30.0	20.0	42	0.8
505	450	48.0	32.0	22.0	42	0.8
555	450	48.0	32.0	22.0	42	0.8
605	450	48.0	32.0	22.0	42	0.8
705	450	48.0	37.0	26.0	42	0.8
805	450	48.0	37.0	26.0	42	0.8
905	450	58.0	38.0	26.0	52	0.8
106	450	58.0	38.0	26.0	52	0.8

Series CS

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Type

FEATURES:

- Lead-Free. (ROHS. REACH)
- General purpose surface mount type.
- Compact size & wide CV range.
- High solderability & stable characteristics for soldering.
- Compatible with all popular automatic pick and place equipment.

SPECIFICATION:



Item	Performance Characteristics									
Operating Temperature Range	-55 to +125°C (>85°C with rated voltage derating).									
Rated Working Voltage Range	4 to 50 V DC									
Nominal Capacitance Range	0.1 to1000 μF									
Capacitance Tolerance	±20% ± 10% (120Hz, +20°C)									
Leakage Current	Not more than 0.01CV [μA] or 0.5μA whichever is greater									
tan δ (120Hz, +20°C)	0.04 max. for ≤ 1.0μF									
	0.06 max. for 1.5 to 68μF									
	0.08 max. for 100 to 470 μF									
Characteristics at High and Low Temperature	-55°C	Capacitance change		±12% of initial measured value at +20°C						
		Leakage current		≤12.5% of initial measured value						
		Capactiance change		±15% of initial measured value at +20°C						
Moisture Resistance	Test conditions									
	Relative humidity : 90 to 95% without load									
	Ambient temperature : +40°C									
	Duration : 500 hours									
	Post test requirements at + 20°C									
	Leakage current : ≤ Initial specified value									
	Capacitance change : ± 10% of initial measured value									
	tan δ : ≤ Inital specified value									
Endurance	Test conditions									
	Conditions		Derating				Rating			
	Item									
	Duration		1000 hours				1000 hours			
	Ambient temperature		+ 105°C				+ 85°C			
	Applied voltage		Derated working voltage				Rated working voltage			
	Source impedance		1Ω/V				1Ω/V			
	Derating voltage + 105°C									
	Working voltage [V] DC		4	6.3	10	16	20	25	35	50
	Derating voltage [V] DC		2.5	4	6.3	10	13	16	22	32
	Post test requirements at +20°C									
	Leakage current : ≤ 125% of initial specified value									
	Capacitance change : ± 10% of initial measured value									
	tan δ : ≤ Initial specified value									
Shelf Life	Test conditions									
	Duration : 1000 hours					Post test requirements at +20°C				
	Ambient temperature : +125°C					Same limits for "Endurance".				
	Applied voltage : (none)									
Solder Heat Resistance	The capacitor shall withstand dipping into solder bath for 5±1 seconds at 260±5°C									

Series CS

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Type

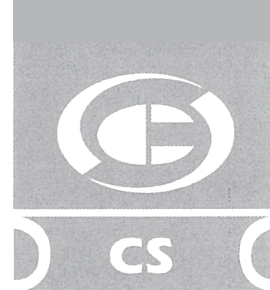
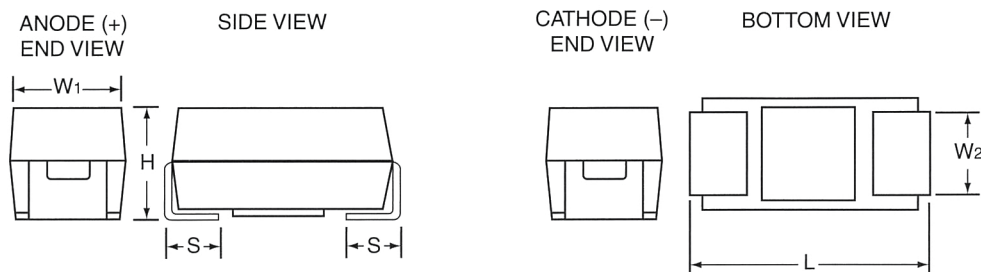


Figure 1. Tantalum Capacitor CHIP Type Outline Drawings.



2. Dimensions Millimeters (Inch)

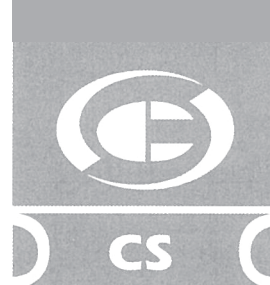
Case Size	$L \pm 0.2$ (0.008)	$W1 \pm 0.2$ (0.008)	$H \pm 0.2$ (0.008)	$S \pm 0.2$ (0.008)	$W2 \pm 0.2$ (0.008)
S	2.0 (0.079)	1.2 (0.047)	1.2 (0.047)	0.5 (0.020)	1.2 (0.047)
A	3.2 (0.126)	1.6 (0.063)	1.6 (0.063)	0.8 (0.031)	1.2 (0.047)
B	3.5 (0.137)	2.8 (0.110)	1.9 (0.075)	0.8 (0.031)	2.2 (0.087)
C	6.0 (0.236)	3.2 (0.126)	2.5 (0.098)	1.3 (0.051)	2.2 (0.087)
D	7.3 (0.287)	4.3 (0.169)	2.8 (0.110)	1.3 (0.051)	2.4 (0.094)
E	7.3 (0.287)	4.3 (0.169)	4.0 (0.157)	1.3 (0.051)	2.4 (0.094)

3. Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	4	6.3	10	16	20	25	35	50
Code	0G	0J	1A	1C	1D	1E	1V	1H
Capacitance (μF)	Case Size							
0.10 (104)					S		A	A
0.15 (154)					S		A	A/B
0.22 (224)					S		A	B
0.33 (334)					S		A	B
0.47 (474)				S	S	A	A/B	C
0.68 (684)			S	S	S/A	A	A/B	C
1.0 (105)		S/A	S/A	S/A	A	A/B	A/B	C
1.5 (155)	S	S/A	S/A	S/A	A/B	B	B/C	C/D
2.2 (225)	S	S/A	S/A	A/B	A/B	B	B/C	D
3.3 (335)	S/A	S/A	S/A	A/B	A/B/C	B/C	B/C/D	D
4.7 (475)	S/A	S/A	S/A/B	A/B	A/B/C	B/C	C/D	D/E
6.8 (685)	S/A	S/A/B	A/B	A/B/C	B/C/D	C/D	C/D	D
10 (106)	A/B	A/B	A/B	A/B/C	C/D	C/D	C/D	E
15 (156)	A/B	A/B	B/C	B/C	C/D	C/D	E	
22 (226)	A/B	A/B	B/C	B/C/D	C/D	D	E	
33 (336)	B/C	B/C	C/D	C/D	D	D/E		
47 (476)	B/C	B/C	C/D	C/D	D/E	E		
68 (686)	B/C/D	C/D	D	D	D/E			
100 (107)	B/C/D	C/D	C/D	D	E			
150 (157)	C/D	D	E	E				
220 (227)	D	D/E	D/E	E				
330 (337)	E	D/E	E					
470 (477)	E							
1000 (108)								
680 (687)								

Series CS

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Type



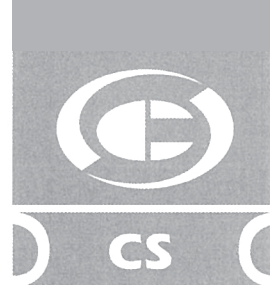
Ratings and Part Number Reference

Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
4 volt @ 85°C (2.5 volt, @ 25°C)					
CSS 0G155(#)TR	S	1.5	0.5	6	30
CSS 0G225(#)TR	S	2.2	0.5	6	25
CSS 0G335(#)TR	S	3.3	0.5	6	20
CSA 0G335(#)TR	A	3.3	0.5	6	9
CSS 0G475(#)TR	S	4.7	0.5	6	10
CSA 0G475(#)TR	A	4.7	0.5	6	7.5
CSS 0G685(#)TR	S	6.8	0.5	6	7.0
CSA 0G685(#)TR	A	6.8	0.5	6	6.5
CSA 0G106(#)TR	A	10	0.5	6	6.0
CSB 0G106(#)TR	B	10	0.5	6	4.0
CSA 0G156(#)TR	A	15	0.6	6	4.0
CSB 0G156(#)TR	B	15	0.6	6	3.5
CSA 0G226(#)TR	A	22	0.88	6	3.5
CSB 0G226(#)TR	B	22	0.88	6	3.2
CSB 0G336(#)TR	B	33	1.32	6	2.8
CSC 0G336(#)TR	C	33	1.32	6	2.2
CSB 0G476(#)TR	B	47	1.88	6	2.2
CSC 0G476(#)TR	C	47	1.88	6	1.8
CSB 0G686(#)TR	B	68	2.72	6	3.5
CSC 0G686(#)TR	C	68	2.72	6	1.6
CSD 0G686(#)TR	D	68	2.72	6	1.1
CSB 0G107(#)TR	B	100	4.0	8	2.5
CSC 0G107(#)TR	C	100	4.0	8	1.3
CSD 0G107(#)TR	D	100	4.0	8	0.9
CSC 0G157(#)TR	C	150	6.0	8	0.9
CSD 0G157(#)TR	D	150	6.0	8	0.9
CSD 0G227(#)TR	D	220	8.8	8	0.9
CSE 0G337(#)TR	E	330	13.2	8	0.9
CSE 0G477(#)TR	E	470	18.8	8	0.9
6.3 volt @ 85°C (4 volt, @ 125°C)					
CSS 0J105(#)TR	S	1.0	0.5	4	25
CSA 0J105(#)TR	A	1.0	0.5	4	14
CSS 0J155(#)TR	S	1.5	0.5	6	25
CSA 0J155(#)TR	A	1.5	0.5	6	12
CSS 0J225(#)TR	S	2.2	0.5	6	20
CSA 0J225(#)TR	A	2.2	0.5	6	9.0
CSS 0J335(#)TR	S	3.3	0.5	6	12
CSA 0J335(#)TR	A	3.3	0.5	6	7.0
CSS 0J475(#)TR	S	4.7	0.5	6	7.0
CSA 0J475(#)TR	A	4.7	0.5	6	6.0
CSS 0J685(#)TR	S	6.8	0.5	6	15
CSA 0J685(#)TR	A	6.8	0.5	6	5.0
CSB 0J685(#)TR	B	6.8	0.5	6	4.0
CSA 0J106(#)TR	A	10	0.63	6	4.0
CSB 0J106(#)TR	B	10	0.63	6	3.0
CSA 0J156(#)TR	A	15	0.94	6	4.0
CSB 0J156(#)TR	B	15	0.94	6	3.3
CSA 0J226(#)TR	A	22	1.38	6	3.5
CSC 0J226(#)TR	B	22	1.38	6	2.5
CSB 0J336(#)TR	B	33	2.07	6	2.0
CSC 0J336(#)TR	C	33	2.07	6	1.8
CSB 0J476(#)TR	B	47	2.96	6	2.0
CSC 0J476(#)TR	C	47	2.96	6	1.6
CSC 0J686(#)TR	C	68	4.28	6	1.6
CSD 0J686(#)TR	D	68	4.28	6	0.9
CSC 0J107(#)TR	C	100	6.3	8	1.4
CSD 0J107(#)TR	D	100	6.3	8	0.9
CSD 0J157(#)TR	D	150	9.45	8	0.9
CSD 0J227(#)TR	D	220	13.86	8	0.7
CSE 0J227(#)TR	E	220	13.86	8	0.9
CSD 0J337(#)TR	D	330	20.79	8	0.5
CSE 0J337(#)TR	E	330	20.79	8	0.9

Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
10 volt @ 85°C (6.3 volt, @ 25°C)					
CSS 1A684(#)TR	S	0.68	0.5	4	30
CSS 1A105(#)TR	S	1.0	0.5	4	25
CSA 1A105(#)TR	A	1.0	0.5	4	13
CSS 1A155(#)TR	S	1.5	0.5	6	25
CSA 1A155(#)TR	A	1.5	0.5	6	10
CSA 1A225(#)TR	S	2.2	0.5	6	15
CSS 1A225(#)TR	A	2.2	0.5	6	7.0
CSA 1A335(#)TR	S	3.3	0.5	6	10
CSS 1A335(#)TR	A	3.3	0.5	6	5.5
CSS 1A475(#)TR	S	4.7	0.5	6	15
CSA 1A475(#)TR	A	4.7	0.5	6	5.0
CSB 1A475(#)TR	B	4.7	0.5	6	4.0
CSA 1A685(#)TR	A	6.8	0.68	6	4.0
CSB 1A685(#)TR	B	6.8	0.68	6	3.0
CSA 1A106(#)TR	A	10	1.0	6	3.0
CSB 1A106(#)TR	B	10	1.0	6	2.5
CSB 1A156(#)TR	B	15	1.5	6	2.8
CSC 1A156(#)TR	C	15	1.5	6	2.2
CSB 1A226(#)TR	B	22	2.2	6	2.4
CSC 1A226(#)TR	C	22	2.2	6	1.8
CSC 1A336(#)TR	C	33	3.3	6	1.6
CSD 1A336(#)TR	D	33	3.3	6	1.1
CSC 1A476(#)TR	C	47	4.7	6	1.2
CSD 1A476(#)TR	D	47	4.7	6	0.9
CSD 1A686(#)TR	D	68	6.8	6	0.9
CSC 1A107(#)TR	C	100	10.0	6	1.3
CSD 1A107(#)TR	D	100	10.0	6	0.9
CSE 1A157(#)TR	E	150	15	8	0.9
CSD 1A227(#)TR	D	220	22	8	0.5
CSE 1A227(#)TR	E	220	22	8	0.9
CSE 1A337(#)TR	E	330	33	8	0.9
16 volt @ 85°C (10 volt, @ 125°C)					
CSS 1C474(#)TR	S	0.47	0.5	4	25.0
CSS 1C684(#)TR	S	0.68	0.5	4	25.0
CSS 1C105(#)TR	S	1.0	0.5	6	20.0
CSA 1C105(#)TR	A	1.0	0.5	6	11.0
CSS 1C155(#)TR	S	1.5	0.5	6	12.0
CSA 1C155(#)TR	A	1.5	0.5	6	8.0
CSA 1C225(#)TR	A	2.2	0.5	6	6.5
CSB 1C225(#)TR	B	2.2	0.5	6	5.5
CSA 1C335(#)TR	A	3.3	0.52	6	5.0
CSB 1C335(#)TR	B	3.3	0.52	6	4.5
CSA 1C475(#)TR	A	4.7	0.75	6	4.0
CSB 1C475(#)TR	B	4.7	0.75	6	3.5
CSA 1C685(#)TR	A	6.8	1.08	6	5.0
CSB 1C685(#)TR	B	6.8	1.08	6	3.5
CSC 1C685(#)TR	C	6.8	1.08	6	2.5
CSA 1C106(#)TR	A	10	1.6	6	5.0
CSB 1C106(#)TR	B	10	1.6	6	2.8
CSC 1C106(#)TR	C	10	1.6	6	2.0
CSB 1C156(#)TR	B	15	2.4	6	3.0
CSC 1C156(#)TR	C	15	2.4	6	1.8
CSB 1C226(#)TR	B	22	3.52	6	2.8
CSC 1C226(#)TR	C	22	3.52	6	1.6
CSD 1C226(#)TR	D	22	3.52	6	1.1
CSC 1C336(#)TR	C	33	5.28	6	1.5
CSD 1C336(#)TR	D	33	5.28	6	0.9
CSC 1C476(#)TR	C	47	7.52	6	1.4
CSD 1C476(#)TR	D	47	7.52	6	0.9
CSD 1C686(#)TR	D	68	10.88	6	0.9
CSD 1C107(#)TR	D	100	16	8	0.9
CSE 1C157(#)TR	E	150	24	8	0.9
CSE 1C227(#)TR	E	220	35.2	8	0.9

Series CS

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Type



Ratings and Part Number Reference

Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
20 volt @ 85°C (13 volt, @ 125°C)					
CSS 1D104(##)TR	S	0.1	0.5	4	25.0
CSS 1D154(##)TR	S	0.15	0.5	4	25.0
CSS 1D224(##)TR	S	0.22	0.5	4	25.0
CSS 1D334(##)TR	S	0.33	0.5	4	25.0
CSS 1D474(##)TR	S	0.47	0.5	4	25.0
CSS 1D684(##)TR	S	0.68	0.5	4	25.0
CSA 1D684(##)TR	A	0.68	0.5	4	12.0
CSA 1D105(##)TR	A	1.0	0.5	4	9.0
CSA 1D155(##)TR	A	1.5	0.5	6	6.5
CSB 1D155(##)TR	B	1.5	0.5	6	5.0
CSA 1D225(##)TR	A	2.2	0.5	6	5.3
CSB 1D225(##)TR	B	2.2	0.5	6	3.5
CSA 1D335(##)TR	A	3.3	0.66	6	7.0
CSB 1D335(##)TR	B	3.3	0.66	6	3.0
CSC 1D335(##)TR	C	3.3	0.66	6	2.5
CSA 1D475(##)TR	A	4.7	0.94	6	6.0
CSB 1D475(##)TR	B	4.7	0.94	6	3.0
CSC 1D475(##)TR	C	4.7	0.94	6	2.8
CSB 1D685(##)TR	B	6.8	1.36	6	3.5
CSC 1D685(##)TR	C	6.8	1.36	6	2.0
CSD 1D685(##)TR	D	6.8	1.36	6	1.8
CSB 1D106(##)TR	B	10	2.0	6	3.0
CSC 1D106(##)TR	C	10	2.0	6	1.8
CSD 1D106(##)TR	D	10	2.0	6	1.3
CSC 1D156(##)TR	C	15	3.0	6	1.7
CSD 1D156(##)TR	D	15	3.0	6	1.1
CSD 1D226(##)TR	D	22	4.4	6	0.9
CSD 1D336(##)TR	D	33	6.6	6	0.9
CSD 1D476(##)TR	D	47	9.4	6	0.9
CSE 1D476(##)TR	E	47	9.4	6	0.9
CSD 1D686(##)TR	D	68	13.6	6	0.7
CSE 1D686(##)TR	E	68	13.6	6	0.9
CSE 1D107(##)TR	E	100	20.0	8	0.5
25 volt @ 85°C (16 volt, @ 125°C)					
CSA 1E474(##)TR	A	0.47	0.5	4	14.0
CSA 1E684(##)TR	A	0.68	0.5	4	10.0
CSA 1E105(##)TR	A	1.0	0.5	4	8.0
CSB 1E105(##)TR	B	1.0	0.5	4	7.0
CSB 1E155(##)TR	B	1.5	0.5	6	5.0
CSB 1E225(##)TR	B	2.2	0.55	6	4.5
CSB 1E335(##)TR	B	3.3	0.82	6	4.0
CSC 1E335(##)TR	C	3.3	0.82	6	2.8
CSB 1E475(##)TR	B	4.7	1.17	6	3.5
CSC 1E475(##)TR	C	4.7	1.7	6	2.4
CSC 1E685(##)TR	C	6.8	1.7	6	2.0
CSD 1E685(##)TR	D	6.8	1.7	6	1.4
CSC 1E106(##)TR	C	10	2.5	6	1.8
CSD 1E106(##)TR	D	10	2.5	6	1.2
CSC 1E156(##)TR	C	15	3.75	6	1.2
CSD 1E156(##)TR	D	15	3.75	6	1.0
CSD 1E226(##)TR	D	22	5.5	6	0.9
CSD 1E336(##)TR	D	33	8.25	6	0.7
CSE 1E336(##)TR	E	33	8.25	6	0.9
CSE 1E476(##)TR	E	47	11.8	6	0.6

Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
35 volt @ 85°C (22 volt, @ 125°C)					
CSA 1V104(##)TR	A	0.1	0.5	4	24.0
CSA 1V154(##)TR	A	0.15	0.5	4	21.0
CSA 1V224(##)TR	A	0.22	0.5	4	18.0
CSA 1V334(##)TR	A	0.33	0.5	4	15.0
CSA 1V474(##)TR	A	0.47	0.5	4	12.0
CSB 1V474(##)TR	B	0.47	0.5	4	10.0
CSA 1V684(##)TR	A	0.68	0.5	4	10.0
CSB 1V684(##)TR	B	0.68	0.5	4	8.0
CSA 1V105(##)TR	A	1.0	0.5	4	10.0
CSB 1V105(##)TR	B	1.0	0.5	4	6.5
CSB 1V155(##)TR	B	1.5	0.5	6	5.2
CSC 1V155(##)TR	C	1.5	0.52	6	4.5
CSB 1V225(##)TR	B	2.2	0.77	6	4.0
CSC 1V225(##)TR	C	2.2	0.77	6	3.5
CSB 1V335(##)TR	B	3.3	1.15	6	3.0
CSC 1V335(##)TR	C	3.3	1.15	6	2.5
CSD 1V335(##)TR	D	3.3	1.15	6	2.0
CSC 1V475(##)TR	C	4.7	1.64	6	2.2
CSD 1V475(##)TR	D	4.7	1.64	6	1.5
CSC 1V685(##)TR	C	6.8	2.38	6	2.0
CSD 1V685(##)TR	D	6.8	2.38	6	1.3
CSC 1V106(##)TR	C	10	3.50	6	1.2
CSD 1V106(##)TR	D	10	3.50	6	1.0
CSE 1V156(##)TR	E	15	5.25	6	0.9
CSE 1V226(##)TR	E	22	7.70	6	0.9
50 volt @ 85°C (32 volt, @ 125°C)					
CSA 1H104(##)TR	A	0.1	0.5	4	22.0
CSA 1H154(##)TR	A	0.15	0.5	4	17.0
CSB 1H154(##)TR	B	0.15	0.5	4	15.0
CSB 1H224(##)TR	B	0.22	0.5	4	14.0
CSB 1H334(##)TR	B	0.33	0.5	4	12.0
CSC 1H474(##)TR	C	0.47	0.5	4	8.0
CSC 1H684(##)TR	C	0.68	0.5	4	7.0
CSC 1H105(##)TR	C	1.0	0.5	4	5.5
CSC 1H155(##)TR	C	1.5	0.75	6	4.5
CSD 1H155(##)TR	D	1.5	0.75	6	4.0
CSD 1H225(##)TR	D	2.2	1.1	6	2.5
CSD 1H335(##)TR	D	3.3	1.65	6	2.0
CSD 1H475(##)TR	D	4.7	2.35	6	1.5
CSE 1H475(##)TR	E	4.7	2.35	6	1.4
CSE 1H685(##)TR	E	6.8	3.4	6	0.9
CSE 1H106(##)TR	E	10	5.0	6	0.8

All technical data relates to an ambient temperature of +20°C measured at 120 Hz, 0.5V RMS unless otherwise stated.

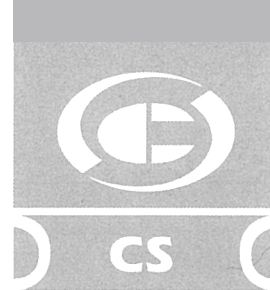
Insert tolerance, K for ±10% and M for ±20%.

For 10% tolerance, insert, "K" in (#) above.

For 20% tolerance, insert, "M" in (#) above.

Series CS

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Type

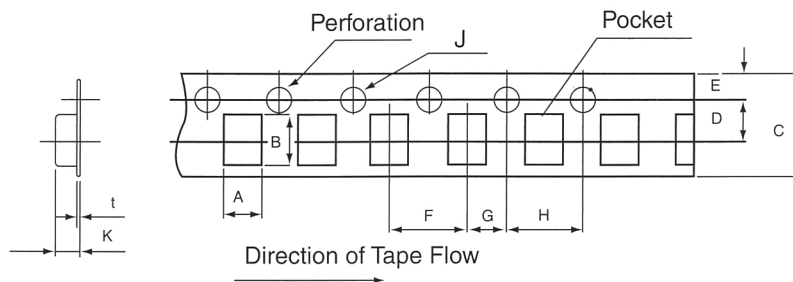


Carrier Tape Packaging Specification Explanation Of Part Numbers

<u>C S</u>	<u>A</u>	<u>O G</u>	<u>4 7 5</u>	<u>M</u>	<u>T</u>	<u>R</u>
Series Code	Case Size	Rated Voltage	Nominal Capacitance	Capacitance Tolerance	Carrier Tape Packaging	Polarity Orientation

Dimensions of the carrier tape and standard parts quantity per reel.

Dimensions

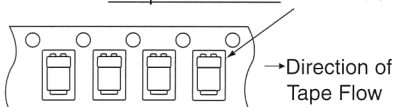


(Unit:mm)

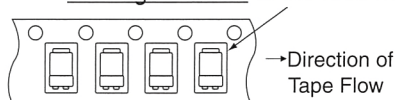
CASE SIZE	A ±0.1	B ±0.1	C ±0.3	D ±0.1	E ±0.1	F ±0.1	G ±0.1	H ±0.1	J +0.1 -0	K MAX	t	Quantity Per Reel
S	1.6	2.4	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2500
A	1.9	3.5	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
B	3.1	3.8	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
C	3.6	6.4	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.0	0.3	500
D	4.7	7.7	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.4	0.3	500
E	4.6	7.6	12.0	5.5	1.75	8.0	2.0	4.0	1.5	4.6	0.3	500

Inserting Direction (Polarity Orientation)

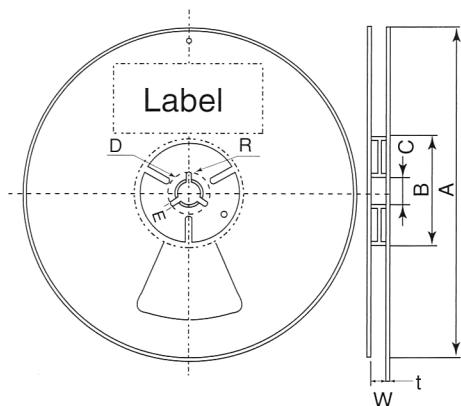
Polarity L: To be inserted with
the positive side to the feed hole.



Polarity R: To be inserted with
the negative side to the feed hole.



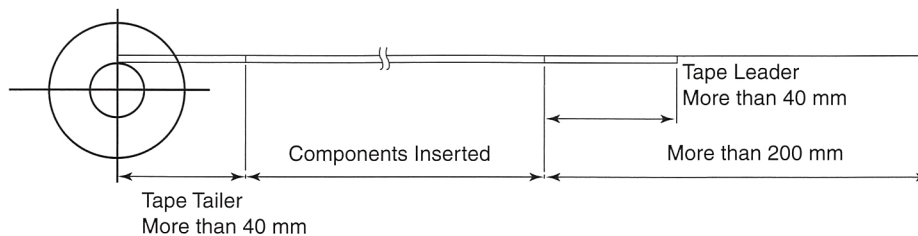
Reel Dimensions



(Unit:mm)

Tape width	8	12
A ₃ ⁰	ø 180	←
B ₀ ⁺¹	ø 60	←
C ± 0.2	ø 13	←
D ± 0.8	ø 21	←
E ± 0.5	2.0	←
W ± 0.3	9.0	13.0
t ± 0.4	1.3	←
R ± 0.4	10.5	←

Tape Leader and Tailer

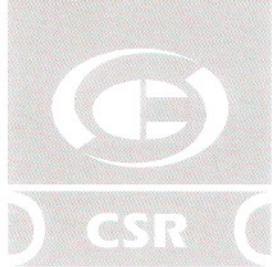


Series CSR

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Low ESR Type

Brief Introduction

The CSR Series is low ESR tantalum chip capacitor, suitable for SMD electric board used for telecommunication, computers, camcorder and mobile phone set and so on. Low ESR values conform with EIA535BAAC sizes. CSR Series is equivalent to KEMET T494 Series

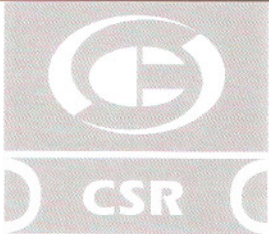


SPECIFICATION:

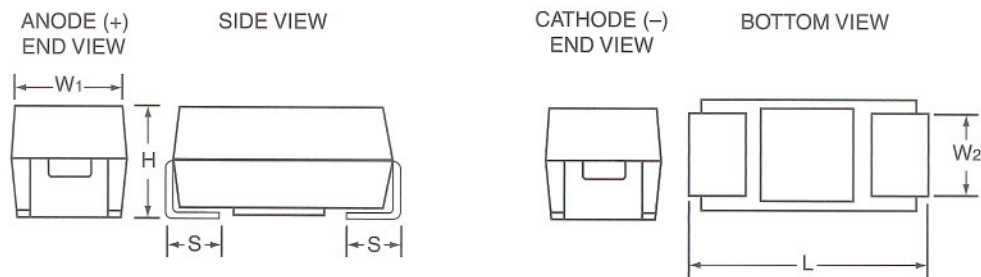
Item	Performance Characteristics									
Operating Temperature Range	-55 to + 125°C (>85°C with rated voltage derating)									
Rated Working Voltage Range	4 to 50 V DC									
Nominal Capacitance Range	0.1 to 470 μF									
Capacitance Tolerance	±20% ± 10% (120Hz, +20°C)									
Leakage Current	Not more than 0.01CV [μA] or 0.5μA whichever is greater									
tan δ (120Hz, +20°C)	0.04 max. for ≤ 1.0μF									
	0.06 max. for 1.5 to 68μF									
	0.08 max. for 100 to 470 μF									
Characteristics at High and Low Temperature	-55°C	Capacitance change		±12% of initial measured value at +20°C						
	+105°C	Leakage current		≤12.5% of initial measured value						
		Capactiance change		±15% of initial measured value at +20°C						
Moisture Resistance	Test conditions									
	Relative humidity : 90 to 95% without load									
	Ambient temperature : +40°C									
	Duration : 500 hours									
	Post test requirements at + 20°C									
	Leakage current : ≤ Initial specified value									
	Capacitance change : ± 10% of initial measured value									
	tan δ : ≤ Inital specified value									
Endurance	Test conditions									
	Conditions		Derating			Rating				
	Item									
	Duration		1000 hours			1000 hours				
	Ambient temperature		+ 105°C			+ 85°C				
	Applied voltage		Derated working voltage			Rated working voltage				
	Source impedance		1Ω/V			1Ω/V				
	Derating voltage + 105°C									
	Working voltage [V] DC		4	6.3	10	16	20	25	35	50
	Derating voltage [V] DC		2.5	4	6.3	10	13	16	22	32
	Post test requirements at +20°C									
	Leakage current : ≤ 125% of initial specified value									
	Capacitance change : ± 10% of initial measured value									
tan δ : ≤ Initial specified value										
Shelf Life	Test conditions									
	Duration : 1000 hours									
	Ambient temperature : +105°C									
	Applied voltage : (none)									
Solder Heat Resistance	Post test requirements at +20°C									
	Same limits for "Endurance".									
Solder Heat Resistance	The capacitor shall withstand dipping into solder bath for 5±1 seconds at 260±5°C									

Series CSR

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Low ESR Type



1. Tantalum Capacitor CHIP Type Outline Drawings.



2. Dimensions Millimeters (Inch)

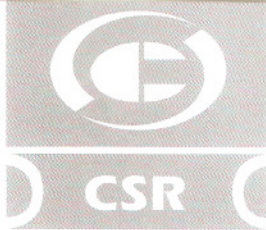
Case Size	L±0.2 (0.008)	W1±0.2 (0.008)	H±0.2 (0.008)	S±0.2 (0.008)	W2±0.2 (0.008)
S	2.0 (0.079)	1.2 (0.047)	1.2 (0.047)	0.5 (0.020)	1.2 (0.047)
A	3.2 (0.126)	1.6 (0.063)	1.6 (0.063)	0.8 (0.031)	1.2 (0.047)
B	3.5 (0.137)	2.8 (0.110)	1.9 (0.075)	0.8 (0.031)	2.2 (0.087)
C	6.0 (0.236)	3.2 (0.126)	2.5 (0.098)	1.3 (0.051)	2.2 (0.087)
D	7.3 (0.287)	4.3 (0.169)	2.8 (0.110)	1.3 (0.051)	2.4 (0.094)
E	7.3 (0.287)	4.3 (0.169)	4.0 (0.157)	1.3 (0.051)	2.4 (0.094)

3. Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	4	6.3	10	16	20	25	35	50
Code	0G	0J	1A	1C	1D	1E	1V	1H
Capacitance (μF)	Case Size							
0.10 (104)							A	A
0.15 (154)							A	A/B
0.22 (224)							A	B
0.33 (334)						A	A	B
0.47 (474)						A	A/B	B/C
0.68 (684)					A	A	A/B	B/C
1.0 (105)				A	A	A/B	A/B	C
1.5 (155)			A	A	A	A/B	B/C	C/D
2.2 (225)		A	A	S/A	A/B	B/C	B/C	C/D
3.3 (335)	A	A	A	A/B	A/B	B/C	B/C	D
4.7 (475)	A	A	S/A/B	A/B	A/B/C	B/C	C/D	D
6.8 (685)	A	S/A/B	A/B	A/B/C	B/C	C	C/D	E
10 (106)	S/A/B	S/A/B	A/B/C	B/C	B/C	C/D	C/D	
15 (156)	A/B	A/B/C	A/B/C	B/C	C/D	C/D	D/E	
22 (226)	A/B/C	A/B/C	B/C	C/D	C/D	D	D/E	
33 (336)	A/B/C	A/B/C	B/C/D	C/D	C/D	D/E		
47 (476)	A/B/C	B/C/D	C/D	C/D	D	E		
68 (686)	B/C/D	C/D	C/D	D	D/E			
100 (107)	B/C/D	C/D	C/D	D/E	E			
150 (157)	C/D	C/D	D/E	E				
220 (227)	D	D/E	D/E					
330 (337)	D	D/E	E					
470 (477)	D/E	E						

Series CSR

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Low ESR Type



Ratings and Part Number Reference

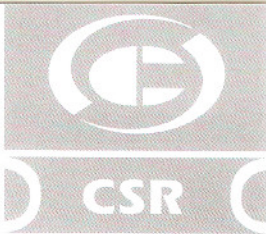
Part No.	Case Size	Capacitance μ F	DCL (μ A) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
4 volt @ 85°C (2.5 volt, @ 125°C)					
CSRA 0G335(#)TR	A	3.3	0.5	6	4.0
CSRA 0G475(#)TR	A	4.7	0.5	6	3.5
CSRA 0G685(#)TR	A	6.8	0.5	6	3.0
CSRS 0G106(#)TR	S	10	0.5	6	6.0
CSRA 0G106(#)TR	A	10	0.5	6	2.0
CSRB 0G106(#)TR	B	10	0.5	6	1.2
CSRA 0G156(#)TR	A	15	0.6	6	1.5
CSRB 0G156(#)TR	B	15	0.6	6	1.2
CSRA 0G226(#)TR	A	22	0.88	6	1.5
CSRB 0G226(#)TR	B	22	0.88	6	0.6
CSRC 0G226(#)TR	C	22	0.88	6	0.5
CSRA 0G336(#)TR	A	33	1.32	6	3.0
CSRB 0G336(#)TR	B	33	1.32	6	0.6
CSRC 0G336(#)TR	C	33	1.32	6	0.5
CSRA 0G476(#)TR	A	47	1.88	6	2.0
CSRB 0G476(#)TR	B	47	1.88	6	0.6
CSRC 0G476(#)TR	C	47	1.88	6	0.5
CSRB 0G686(#)TR	B	68	2.72	6	2.0
CSRC 0G686(#)TR	C	68	2.72	6	0.25
CSRD 0G686(#)TR	D	68	2.72	6	0.2
CSRB 0G107(#)TR	B	100	4.0	8	0.6
CSRC 0G107(#)TR	C	100	4.0	8	0.2
CSRD 0G107(#)TR	D	100	4.0	8	0.2
CSRC 0G157(#)TR	C	150	6.0	8	0.2
CSRD 0G157(#)TR	D	150	6.0	8	0.15
CSRD 0G227(#)TR	D	220	8.8	8	0.15
CSRD 0G337(#)TR	D	330	13.2	8	0.15
CSRD 0G477(#)TR	D	470	18.8	8	0.15
CSRE 0G477(#)TR	E	470	18.8	8	0.15
6.3 volt @ 85°C (4 volt, @ 125°C)					
CSRA 0J225(#)TR	A	2.2	0.5	6	6.0
CSRA 0J335(#)TR	A	3.3	0.5	6	6.0
CSRA 0J475(#)TR	A	4.7	0.5	6	3.5
CSRS 0J685(#)TR	S	6.8	0.5	6	8.0
CSRA 0J685(#)TR	A	6.8	0.5	6	2.0
CSRB 0J685(#)TR	B	6.8	0.5	6	1.2
CSRS 0J106(#)TR	S	10	0.63	6	6.0
CSRA 0J106(#)TR	A	10	0.63	6	2.0
CSRB 0J106(#)TR	B	10	0.63	6	1.0
CSRA 0J156(#)TR	A	15	0.94	6	2.0
CSRB 0J156(#)TR	B	15	0.94	6	0.7
CSRC 0J156(#)TR	C	15	0.94	6	0.6
CSRA 0J226(#)TR	A	22	1.38	6	2.0
CSRB 0J226(#)TR	B	22	1.38	6	0.6
CSRC 0J226(#)TR	C	22	1.38	6	0.5
CSRA 0J336(#)TR	A	33	2.07	6	2.0
CSRB 0J336(#)TR	B	33	2.07	6	0.6
CSRC 0J336(#)TR	C	33	2.07	6	0.3
CSRB 0J476(#)TR	B	47	2.96	6	2.0
CSRC 0J476(#)TR	C	47	2.96	6	0.25
CSRD 0J476(#)TR	D	47	2.96	6	0.2
CSRC 0J686(#)TR	C	68	4.28	6	0.2
CSRD 0J686(#)TR	D	68	4.28	6	0.2
CSRC 0J107(#)TR	C	100	6.3	8	0.3
CSRD 0J107(#)TR	D	100	6.3	8	0.15
CSRC 0J157(#)TR	C	150	9.45	8	0.15
CSRD 0J157(#)TR	D	150	9.45	8	0.15
CSRD 0J227(#)TR	D	220	13.86	8	0.15
CSRE 0J227(#)TR	E	220	13.86	8	0.15
CSRD 0J337(#)TR	D	330	20.79	8	0.15
CSRE 0J337(#)TR	E	470	29.60	10	0.1

Part No.	Case Size	Capacitance μ F	DCL (μ A) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
10 volt @ 85°C (6.3 volt, @ 125°C)					
CSRA 1A155(#)TR	A	1.5	0.5	6	6.0
CSRA 1A225(#)TR	A	2.2	0.5	6	6.0
CSRA 1A335(#)TR	A	3.3	0.5	6	4.0
CSRS 1A475(#)TR	S	4.7	0.5	6	8.0
CSRA 1A475(#)TR	A	4.7	0.5	6	3.0
CSRB 1A475(#)TR	B	4.7	0.5	6	1.5
CSRA 1A685(#)TR	A	6.8	0.68	6	3.0
CSRB 1A685(#)TR	B	6.8	0.68	6	1.2
CSRA 1A106(#)TR	A	10	1.0	6	2.0
CSRB 1A106(#)TR	B	10	1.0	6	0.8
CSRC 1A106(#)TR	C	10	1.0	6	0.6
CSRA 1A156(#)TR	A	15	1.5	6	4.0
CSRB 1A156(#)TR	B	15	1.5	6	0.7
CSRC 1A156(#)TR	C	15	1.5	6	0.5
CSRB 1A226(#)TR	B	22	2.2	6	0.7
CSRC 1A226(#)TR	C	22	2.2	6	0.4
CSRB 1A336(#)TR	B	33	3.3	6	2.0
CSRC 1A336(#)TR	C	33	3.3	6	0.3
CSRD 1A336(#)TR	D	33	3.3	6	0.25
CSRC 1A476(#)TR	C	47	4.7	6	0.3
CSRD 1A476(#)TR	D	47	4.7	6	0.22
CSRC 1A686(#)TR	C	68	6.8	6	0.3
CSRD 1A686(#)TR	D	68	6.8	6	0.2
CSRC 1A107(#)TR	C	100	10.0	6	0.3
CSRD 1A107(#)TR	D	100	10.0	6	0.15
CSRD 1A157(#)TR	D	150	15	8	0.15
CSRE 1A157(#)TR	E	150	15	8	0.15
CSRD 1A227(#)TR	D	220	22	8	0.15
CSRE 1A227(#)TR	E	220	22	8	0.15
CSRE 1A337(#)TR	E	330	33	8	0.15
16 volt @ 85°C (10 volt, @ 125°C)					
CSRA 1C105(#)TR	A	1.0	0.5	6	6.0
CSRA 1C155(#)TR	A	1.5	0.5	6	6.0
CSRS 1C225(#)TR	S	2.2	0.5	6	20.0
CSRA 1C225(#)TR	A	2.2	0.5	6	4.0
CSRA 1C335(#)TR	A	3.3	0.52	6	4.0
CSRB 1C335(#)TR	B	3.3	0.52	6	2.0
CSRA 1C475(#)TR	A	4.7	0.75	6	3.0
CSRB 1C475(#)TR	B	4.7	0.75	6	1.5
CSRA 1C685(#)TR	A	6.8	1.08	6	3.0
CSRB 1C685(#)TR	B	6.8	1.08	6	1.2
CSRC 1C685(#)TR	C	6.8	1.08	6	0.8
CSRB 1C106(#)TR	B	10	1.6	6	0.8
CSRC 1C106(#)TR	C	10	1.6	6	0.6
CSRB 1C156(#)TR	B	15	2.4	6	0.8
CSRC 1C156(#)TR	C	15	2.4	6	0.4
CSRC 1C226(#)TR	C	22	3.52	6	0.35
CSRD 1C226(#)TR	D	22	3.52	6	0.25
CSRC 1C336(#)TR	C	33	5.28	6	0.30
CSRD 1C336(#)TR	D	33	5.28	6	0.25
CSRC 1C476(#)TR	C	47	7.52	6	0.35
CSRD 1C476(#)TR	D	47	7.52	6	0.2
CSRD 1C686(#)TR	D	68	10.88	6	0.15
CSRD 1C107(#)TR	D	100	16	8	0.15
CSRE 1C107(#)TR	E	100	16	8	0.15
CSRE 1C157(#)TR	E	150	24	8	0.15

For 10% tolerance, insert, "K" in (#) above.
For 20% tolerance, insert, "M" in (#) above.

Series CSR

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Low ESR Type



Ratings and Part Number Reference

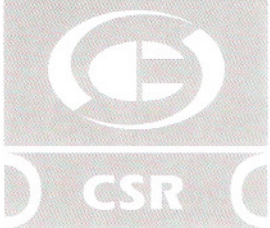
Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
20 volt @ 85°C (13 volt, @ 125°C)					
CSRA 1D684(##)TR	A	0.68	0.5	4	8.0
CSRA 1D105(##)TR	A	1.0	0.5	4	5.5
CSRA 1D155(##)TR	A	1.5	0.5	6	4.5
CSRA 1D225(##)TR	A	2.2	0.5	6	4.0
CSRB 1D225(##)TR	B	2.2	0.5	6	1.5
CSRA 1D335(##)TR	A	3.3	0.66	6	4.0
CSRB 1D335(##)TR	B	3.3	0.66	6	1.3
CSRA 1D475(##)TR	A	4.7	0.94	6	3.5
CSRB 1D475(##)TR	B	4.7	0.94	6	1.0
CSRC 1D475(##)TR	C	4.7	0.94	6	0.6
CSRB 1D685(##)TR	B	6.8	1.36	6	1.0
CSRC 1D685(##)TR	C	6.8	1.36	6	0.5
CSRB 1D106(##)TR	B	10	2.0	6	1.0
CSRC 1D106(##)TR	C	10	2.0	6	0.5
CSRC 1D156(##)TR	C	15	3.0	6	0.4
CSRD 1D156(##)TR	D	15	3.0	6	0.35
CSRC 1D226(##)TR	C	22	4.4	6	0.4
CSRD 1D226(##)TR	D	22	4.4	6	0.30
CSRC 1D336(##)TR	C	33	6.6	6	0.4
CSRD 1D336(##)TR	D	33	6.6	6	0.25
CSRD 1D476(##)TR	D	47	9.4	6	0.20
CSRD 1D686(##)TR	D	68	13.6	6	0.2
CSRE 1D686(##)TR	E	68	13.6	6	0.2
CSRE 1D107(##)TR	E	100	20	8	0.15
25 volt @ 85°C (16 volt, @ 125°C)					
CSRA 1E334(##)TR	A	0.33	0.5	4	10.0
CSRA 1E474(##)TR	A	0.47	0.5	4	9.0
CSRA 1E684(##)TR	A	0.68	0.5	4	6.0
CSRA 1E105(##)TR	A	1.0	0.5	4	4.0
CSRB 1E105(##)TR	B	1.0	0.5	4	2.0
CSRA 1E155(##)TR	A	1.5	0.55	6	5.0
CSRB 1E155(##)TR	B	1.5	0.82	6	1.5
CSRB 1E225(##)TR	B	2.2	0.82	6	2.2
CSRC 1E225(##)TR	C	2.2	0.82	6	1.2
CSRB 1E335(##)TR	B	3.3	1.17	6	2.0
CSRC 1E335(##)TR	C	3.3	1.7	6	1.2
CSRB 1E475(##)TR	B	4.7	1.7	6	1.0
CSRC 1E475(##)TR	C	4.7	1.7	6	0.6
CSRC 1E685(##)TR	C	6.8	2.5	6	0.6
CSRC 1E106(##)TR	C	10	2.5	6	0.6
CSRD 1E106(##)TR	D	10	3.75	6	0.4
CSRC 1E156(##)TR	C	15	3.75	6	0.4
CSRD 1E156(##)TR	D	15	5.5	6	0.9
CSRD 1E226(##)TR	D	22	8.25	6	0.4
CSRD 1E336(##)TR	D	33	8.25	6	0.4
CSRE 1E336(##)TR	E	33	8.25	6	0.3
CSRE 1E476(##)TR	E	47	11.8	6	0.3

Part No.	Case Size	Capacitance μF	DCL (μA) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
35 volt @ 85°C (22 volt, @ 125°C)					
CSRA 1V104(##)TR	A	0.1	0.5	4	10.0
CSRA 1V154(##)TR	A	0.15	0.5	4	6.0
CSRA 1V224(##)TR	A	0.22	0.5	4	6.0
CSRA 1V334(##)TR	A	0.33	0.5	4	6.0
CSRA 1V474(##)TR	A	0.47	0.5	4	4.0
CSRB 1V474(##)TR	B	0.47	0.5	4	2.5
CSRA 1V684(##)TR	A	0.68	0.5	4	6.0
CSRB 1V684(##)TR	B	0.68	0.5	4	2.5
CSRA 1V105(##)TR	A	1.0	0.5	4	6.0
CSRB 1V105(##)TR	B	1.0	0.5	4	2.0
CSRB 1V155(##)TR	B	1.5	0.5	6	3.0
CSRC 1V155(##)TR	C	1.5	0.52	6	2.5
CSRB 1V225(##)TR	B	2.2	0.77	6	2.5
CSRC 1V225(##)TR	C	2.2	0.77	6	1.5
CSRB 1V335(##)TR	B	3.3	1.15	6	2.0
CSRC 1V335(##)TR	C	3.3	1.15	6	0.8
CSRC 1V475(##)TR	C	4.7	1.64	6	0.7
CSRD 1V475(##)TR	D	4.7	1.64	6	0.7
CSRC 1V685(##)TR	C	6.8	2.38	6	0.9
CSRD 1V685(##)TR	D	6.8	2.38	6	0.5
CSRC 1V106(##)TR	C	10	3.50	6	1.2
CSRD 1V106(##)TR	D	10	3.50	6	0.4
CSRD 1V156(##)TR	D	15	5.25	6	0.35
CSRE 1V156(##)TR	E	15	5.25	6	0.3
CSRD 1V226(##)TR	D	22	7.70	6	0.4
CSRE 1V226(##)TR	E	22	7.70	6	0.3
50 volt @ 85°C (32 volt, @ 125°C)					
CSRA 1H104(##)TR	A	0.1	0.5	4	10.0
CSRA 1H154(##)TR	A	0.15	0.5	4	10.0
CSRB 1H154(##)TR	B	0.15	0.5	4	10.0
CSRB 1H224(##)TR	B	0.22	0.5	4	10.0
CSRB 1H334(##)TR	B	0.33	0.5	4	2.5
CSRB 1H474(##)TR	B	0.47	0.5	4	2.0
CSRC 1H474(##)TR	C	0.47	0.5	4	1.8
CSRB 1H684(##)TR	B	0.68	0.5	4	3.0
CSRC 1H684(##)TR	C	0.68	0.5	4	1.6
CSRC 1H105(##)TR	C	1.0	0.5	4	1.6
CSRC 1H155(##)TR	C	1.5	0.75	6	1.5
CSRD 1H155(##)TR	D	1.5	0.75	6	1.0
CSRC 1H225(##)TR	C	2.2	1.1	6	1.5
CSRD 1H225(##)TR	D	2.2	1.1	6	0.8
CSRD 1H335(##)TR	D	3.3	1.65	6	0.8
CSRD 1H475(##)TR	D	4.7	2.35	6	0.6
CSRE 1H685(##)TR	E	6.8	3.4	6	0.5

All technical data relates to an ambient temperature of +20°C measured at 120 Hz, 0.5V RMS unless otherwise stated.
Insert tolerance, K for $\pm 10\%$ and M for $\pm 20\%$.

Series CSR

Solid Electrolytic Tantalum Chip Capacitors Surface Mount Low ESR Type

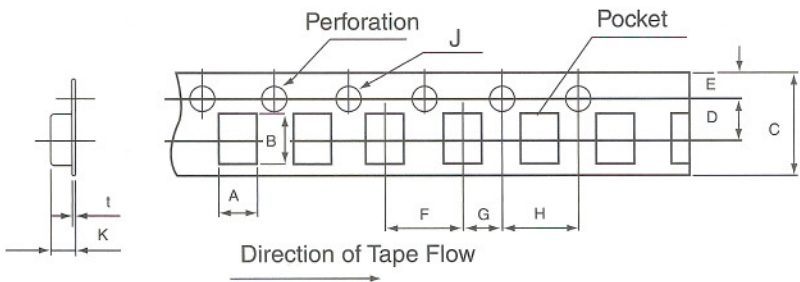


Carrier Tape Packaging Specification Explanation Of Part Numbers

C S R	A	O G	4 7 5	M	T	R
Series Code	Case Size	Rated Voltage	Nominal Capacitance	Capacitance Tolerance	Carrier Tape Packaging	Polarity Orientation

Dimensions of the carrier tape and standard parts quantity per reel.

Dimensions

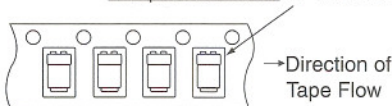


(Unit:mm)

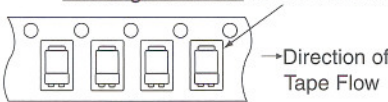
CASE SIZE	A ±0.1	B ±0.1	C ±0.3	D ±0.1	E ±0.1	F ±0.1	G ±0.1	H ±0.1	J +0.1 -0	K MAX	t	Quantity Per Reel
S	1.6	2.4	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2500
A	1.9	3.5	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
B	3.1	3.8	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
C	3.6	6.4	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.0	0.3	500
D	4.7	7.7	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.4	0.3	500
E	4.6	7.6	12.0	5.5	1.75	8.0	2.0	4.0	1.5	4.6	0.3	500

Inserting Direction (Polarity Orientation)

Polarity L: To be inserted with
the positive side to the feed hole.

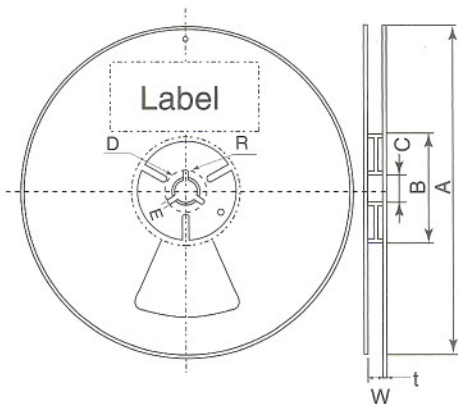


Polarity R: To be inserted with
the negative side to the feed hole.



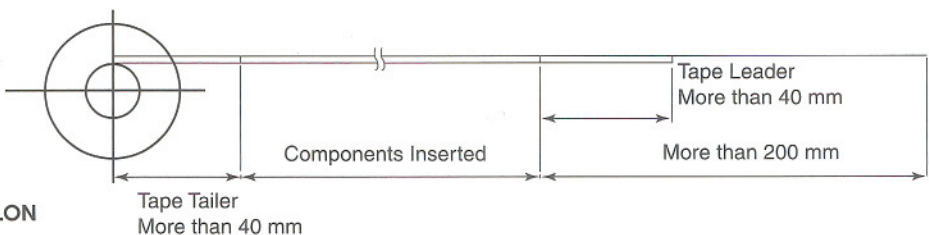
Reel Dimensions

(Unit:mm)



Tape width	8	12
A ₃ ⁰	180	←
B ₀ ⁺¹	60	←
C ± 0.2	13	←
D ± 0.8	21	←
E ± 0.5	2.0	←
W ± 0.3	9.0	13.0
t ± 0.4	1.3	←
R ± 0.4	10.5	←

Tape Leader and Tailer



Series CSP (CA55)



Conductive Polymer Solid Electrolytic Tantalum SMD Capacitors

Brief Introduction

CSP Series is molded solid tantalum capacitor with sintered and polymer as the cathode, featuring Low ESR and good frequency response, resistance to high ripple current, small size, small weight, high reliability and long life.

CSP Series is suitable for SMD electric circuits in telecommunications, computer, mobile phone set, portable digital devices.

CSP Series is equivalent to KEMET T520 & AVX TCJ



SPECIFICATION:

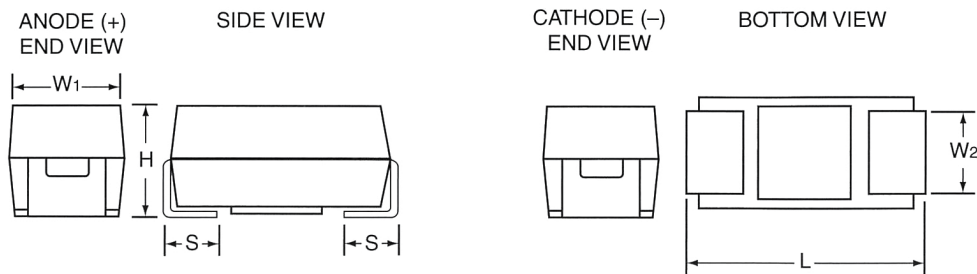
Item	Performance Characteristics																																																																												
Operating Temperature Range	-55 to + 125°C (>85°C with rated voltage derating)																																																																												
Rated Working Voltage Range	2.5 to -100V DC																																																																												
Nominal Capacitance Range	0.1μF to 2200MF μF																																																																												
Capacitance Tolerance	±20% (120Hz, +20°C)																																																																												
Leakage Current	Not more than 0.1cv (μA)																																																																												
tan δ (120Hz, +20°C)	See next page																																																																												
Characteristics at High and Low Temperature	-55°C	Capacitance change				±12% of initial measured value at +20°C																																																																							
	+105°C	Leakage current				≤12.5% of initial measured value																																																																							
		Capactiance change				±15% of initial measured value at +20°C																																																																							
Moisture Resistance	Test conditions																																																																												
	Relative humidity : 90 to 95% without load																																																																												
	Ambient temperature : +40°C																																																																												
	Duration : 500 hours																																																																												
	Post test requirements at + 20°C																																																																												
	Leakage current : ≤ Initial specified value																																																																												
	Capacitance change : ± 10% of initial measured value																																																																												
Endurance	tan δ : ≤ Inital specified value																																																																												
	Test conditions																																																																												
	<table><tr><td>Conditions</td><td colspan="5">Derating</td><td colspan="5">Rating</td></tr><tr><td>Item</td><td colspan="5"></td><td colspan="5"></td></tr><tr><td>Duration</td><td colspan="5">1000 hours</td><td colspan="5">1000 hours</td></tr><tr><td>Ambient temperature</td><td colspan="5">+ 105°C</td><td colspan="5">+ 85°C</td></tr><tr><td>Applied voltage</td><td colspan="5">Derated working voltage</td><td colspan="5">Rated working voltage</td></tr><tr><td>Source impedance</td><td colspan="5">1Ω/V</td><td colspan="5">1Ω/V</td></tr></table>											Conditions	Derating					Rating					Item											Duration	1000 hours					1000 hours					Ambient temperature	+ 105°C					+ 85°C					Applied voltage	Derated working voltage					Rated working voltage					Source impedance	1Ω/V					1Ω/V				
	Conditions	Derating					Rating																																																																						
	Item																																																																												
	Duration	1000 hours					1000 hours																																																																						
	Ambient temperature	+ 105°C					+ 85°C																																																																						
	Applied voltage	Derated working voltage					Rated working voltage																																																																						
	Source impedance	1Ω/V					1Ω/V																																																																						
	Derating voltage + 105°C																																																																												
	<table><tr><td>Working voltage [V] DC</td><td>2.5</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>32</td><td>40</td><td>63</td><td>75</td><td>100</td></tr><tr><td>Derating voltage [V] DC</td><td>1.6</td><td>2.5</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>20</td><td>25</td><td>40</td><td>50</td><td>63</td></tr></table>											Working voltage [V] DC	2.5	4	6.3	10	16	25	32	40	63	75	100	Derating voltage [V] DC	1.6	2.5	4	6.3	10	16	20	25	40	50	63																																										
	Working voltage [V] DC	2.5	4	6.3	10	16	25	32	40	63	75	100																																																																	
	Derating voltage [V] DC	1.6	2.5	4	6.3	10	16	20	25	40	50	63																																																																	
	Post test requirements at +20°C																																																																												
	Leakage current : ≤ 125% of initial specified value																																																																												
Capacitance change : ± 10% of initial measured value																																																																													
tan δ : ≤ Initial specified value																																																																													
Shelf Life	Test conditions																																																																												
	Duration : 2000 hours																																																																												
	Ambient temperature : +105°C																																																																												
	Applied voltage : (none)																																																																												
Solder Heat Resistance	Post test requirements at +20°C																																																																												
	Same limits for "Endurance".																																																																												
Solder Heat Resistance	The capacitor shall withstand dipping into solder bath for 5±1 seconds at 260±5°C																																																																												
	3 X Reflow 260°C compatible																																																																												

Series CSP (CA55)



Polymer Solid Electrolytic Tantalum SMD Capacitors

1. Tantalum Capacitor CHIP TYPE OUTLINE DRAWINGS.



2. Dimensions Millimeters

CASE CODE	EIA	L	W	H	P	T _w
A	3216	3.2±0.2	1.6±0.2	1.6±0.2	0.8±0.2	1.2±0.2
B	3528	3.5±0.2	2.8±0.2	1.9±0.2	0.8±0.2	2.2±0.2
C	6032	6.0±0.2	3.2±0.2	2.5±0.2	1.3±0.2	2.2±0.2
D	7343	7.3±0.2	4.3±0.2	2.8±0.2	1.3±0.2	2.4±0.2
E	7343	7.3±0.4	4.3±0.4	4.1±0.4	1.3±0.2	2.4±0.2
V	7361	7.3±0.4	6.1±0.4	3.6±0.4	1.35±0.2	3.0±0.2
W	7361	7.3±0.4	6.1±0.4	4.1±0.4	1.35±0.2	3.0±0.2
G	8575	8.5±0.4	7.5±0.4	4.5±0.4	1.8±0.2	4.5±0.2
T	110125	11.0±0.4	12.5±0.4	5.5±0.4	1.5±0.2	10.5±0.2

3. Rated Voltage, Capacitance of Capacitors.

Rated Voltage(V)	2.5	4	6.3	10	16	20	25	35	50	63	75	100
Capacitance(uF)	Case Size											
0.1 (104)												A
0.15 (154)												A/B
0.22 (224)												A/B
0.33 (334)											A/B	B/C
0.47 (474)											B/C	B/C
0.68 (684)										B/C	B/C	C/D
1.0 (105)								B/C	B/C	C/D	C/D	C/D
1.5 (155)								B/C/D	C/D	C/D	D/E	D/E
2.2 (225)								B/C/D	C/D	C/D	E/V	E/V
3.3 (335)								C/D	C/D	D/E	V/W	V/W
4.7 (475)					A/B		B/C	B/C/D	C/D	C/D/E	D/E/V	E/V/W
6.8 (685)					A/B/C		B/C/D	B/C/D	C/D/E/V	D/E/V	D/E/V	V/W
10 (106)			A	A/B	A/B/C	B/C	B/C/D	C/D	D/E/V	D/E/V	E/V/W	W
15 (156)		A/B	A/B/C	A/B	B/C	B/C/D	B/C/D	C/D/E/V	E/V/W	E/V/W	V/W	G
22 (226)		A/B/C	A/B/C	A/B	B/C/D	B/C/D	C/D/E/V	D/E/V	D/E/V/W	V/W/G	W/G	T
33 (336)		A/B/C	A/B/C/D	B/C	C/D	C/D/E/V	D/E/V	D/E/V	E/V/W/G	W/G	T	T
47 (476)	A	A/B/C/D	A/B/C/D	B/C	C/D/E/V	C/D/E/V	D/E/V	E/V/W	V/W/G	W/G	T	
68 (686)	A	A/B/C/D	B/C/D	C/D/E/V	C/D/E/V	D/E/V	D/E/V	V/W/G	V/W/G	G/T	T	
100 (107)	A/B	B/C/D	B/C/D/E	C/D/E/V	D/E/V	D/E/V	E/V/W	W/G	T	T	T	
150 (157)		B/C/D/E/V	B/C/D/E/V	C/D/E/V	D/E/V	E/V	V/W/G	G	T			
220 (227)	B/C/D	B/C/D/E/V	C/D/E/V	D/E/V	D/E/V	E/V/W	W/G	T				
330 (337)	B/C/D	C/D/E/V	D/E/V	D/E/V	E/V/W	G	G/T	T				
470 (477)	C/D	D/E/V	D/E/V	E/V/W	W/G	G	T					
680 (687)	DE	D/E/V	E/V/W	V/W/G	G	T						
1000 (108)	D/E	E/V/W	V/W/G	W/G	T	T						
1500 (158)	E	W/G	W/G		T							
2200 (228)		G	G	T								

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR mΩ MAX 100KHZ at 25°C	Ripple current 100KHz A	
						+25°C	+85°C
2.5 Volt. Rating							
47	A	CA55-A2R5476TE090	11.7	8	90	1.06	0.74
68	A	CA55-A2R5686TE080	17	8	80	1.11	0.78
100	B	CA55-B2R5107TE070	25	10	70	1.33	0.93
100	A	CA55-A2R5107TE200	25	10	200	0.7	0.49
220	D	CA55-D2R5227TE040	55	10	40	2.37	1.66
220	C	CA55-C2R5227TE045	55	10	45	1.97	1.38
220	B	CA55-B2R5227TE070	55	10	70	1.33	0.93
330	D	CA55-D2R5337TE040	82	10	40	2.37	1.66
330	C	CA55-C2R5337TE045	82	10	45	1.97	1.38
330	B	CA55-B2R5337TE070	82	10	70	1.33	0.93
470	D	CA55-D2R5337TE040	117	10	40	2.37	1.66
470	C	CA55-C2R5337TE045	117	10	45	1.97	1.38
680	E	CA55-E2R5687TE035	170	10	35	2.67	1.87
680	D	CA55-D2R5687TE040	170	10	40	2.37	1.66
1000	E	CA55-E2R5108TE025	250	10	25	3.16	2.21
1000	D	CA55-D2R5108TE035	250	10	35	2.53	1.77
1500	E	CA55-E2R5158TE025	375	12	25	3.16	2.21

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE	DF % MAX at 120HZ 25℃	ESR mΩ MAX 100KHZ at 25℃	Ripple current 100KHz A	
			uA At 25℃ MAX			+25℃	+85℃
4.0 Volt. Rating							
15	B	CA55-B004156TE090	6	6	90	1.17	0.82
15	A	CA55-A004156TE120	6	8	120	0.91	0.64
22	C	CA55-C004226TE070	8.8	10	70	1.58	1.10
22	B	CA55-B004226TE080	8.8	6	80	1.24	0.87
22	A	CA55-A004226TE100	8.8	8	100	1.0	0.7
33	C	CA55-C004336TE070	13.2	6	70	1.58	1.11
33	B	CA55-B004336TE080	13.2	6	80	1.24	0.87
33	A	CA55-A004336TE080	13.2	8	80	1.11	0.78
47	D	CA55-D004476TE050	18.8	10	50	2.12	1.48
47	C	CA55-C004476TE055	18.8	6	55	1.78	1.25
47	B	CA55-B004476TE080	18.8	6	80	1.24	0.87
47	A	CA55-A004476TE080	18.8	8	80	1.11	0.78
68	D	CA55-D004686TE050	27.2	10	50	2.12	1.48
68	C	CA55-C004686TE055	27.2	6	55	1.78	1.25
68	B	CA55-B004686TE080	27.2	6	80	1.24	0.87
68	A	CA55-A004686TE250	27.2	8	250	0.63	0.44
100	D	CA55-D004107TE045	40	10	45	2.23	1.56
100	C	CA55-C004107TE045	40	8	45	1.97	1.38
100	B	CA55-B004107TE080	40	10	80	1.24	0.87
150	V	CA55-V004157TE060	60	10	35	3.20	2.24
150	E	CA55-E004157TE040	60	10	40	2.50	1.75
150	D	CA55-D004157TE040	60	8	40	2.37	1.66
150	C	CA55-C004157TE045	60	8	45	1.97	1.38
150	B	CA55-B004157TE070	60	10	70	1.33	0.93
220	V	CA55-V004227TE035	88	10	35	3.20	2.24
220	E	CA55-E004227TE040	88	10	40	2.50	1.75
220	D	CA55-D04227TE040	88	8	40	2.37	1.66
220	C	CA55-C004227TE045	88	8	45	1.97	1.38
220	B	CA55-B004227TE070	88	10	70	1.33	0.93
330	V	CA55-V004337TE035	132	10	35	3.20	2.24
330	E	CA55-E004337TE040	132	10	40	2.50	1.75

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR mΩ MAX 100KHZ at 25°C	Ripple current 100KHz A	
						+25°C	+85°C
4.0 Volt. Rating							
330	D	CA55-D004337TE040	132	8	40	2.37	1.66
330	C	CA55-C004337TE045	132	8	45	1.97	1.38
470	V	CA55-V004477TE035	188	10	35	3.20	2.24
470	E	CA55-E004477TE040	188	10	40	2.50	1.75
470	D	CA55-D004477TE040	188	10	40	2.37	1.66
680	V	CA55-V004687TE035	272	10	35	3.20	2.24
680	E	CA55-E004687TE035	272	10	35	2.67	1.87
680	D	CA55-D004687TE035	272	10	35	2.53	1.77
1000	W	CA55-W004108TE025	400	10	25	3.90	2.73
1000	V	CA55-V004108TE030	400	10	30	3.46	2.42
1000	E	CA55-E004108TE030	400	10	30	2.88	2.02
1500	G	CA55-G004158TE025	600	12	25	4.47	3.13
1500	W	CA55-W004158TE025	600	12	25	3.90	2.73
2200	G	CA55-G004228TE025	880	12	25	4.47	3.13
6.3 Volt. Rating							
10	A	CA55-A6R3106TE120	6.3	8	120	0.91	0.64
15	C	CA55-C6R3156TE070	9.4	8	70	1.58	1.10
15	B	CA55-B6R3156TE090	9.4	6	90	1.17	0.82
15	A	CA55-A6R3156TE090	9.4	8	120	0.91	0.64
22	C	CA55-C6R3226TE070	13.8	8	70	1.58	1.1
22	B	CA55-B6R3226TE080	13.8	6	80	1.24	0.87
22	A	CA55-A6R3226TE100	13.8	8	100	1.0	0.7
33	D	CA55-D6R3336TE060	20.8	10	60	1.93	1.35
33	C	CA55-C6R3336TE070	20.8	6	70	1.58	1.11
33	B	CA55-B6R3336TE080	20.8	6	80	1.24	0.87
33	A	CA55-A6R3336TE120	20.8	8	120	0.91	0.64
47	D	CA55-D6R3476TE050	29.6	10	50	2.12	1.48
47	C	CA55-C6R3476TE055	29.6	6	55	1.78	1.25
47	B	CA55-B6R3476TE080	29.6	6	80	1.24	0.87
47	A	CA55-A6R3476TE150	29.6	8	150	0.81	0.57
68	D	CA55-D6R3686TE050	42.8	10	50	2.12	1.48
68	C	CA55-C6R3686TE055	42.8	6	55	1.78	1.25
68	B	CA55-B6R3686TE080	42.8	8	80	1.24	0.87
100	E	CA55-E6R3107TE040	63	10	40	2.50	1.75
100	D	CA55-D6R3107TE045	63	10	45	2.23	1.56
100	C	CA55-C6R3107TE055	63	8	55	1.97	1.38

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
6.3 Volt. Rating							
100	B	CA55-B6R3107TE070	63	10	70	1.33	0.93
150	V	CA55-V6R3157TE035	94.5	10	35	3.20	2.24
150	E	CA55-E6R3157TE040	94.5	10	40	2.50	1.75
150	D	CA55-D6R3157TE040	94.5	8	40	2.37	1.66
150	C	CA55-C6R3157TE055	94.5	8	55	1.78	1.25
150	B	CA55-B6R3157TE070	94.5	10	70	1.33	0.93
220	V	CA55-V6R3227TE035	138	10	35	3.20	2.24
220	E	CA55-E6R3227TE040	138	10	40	2.50	1.75
220	D	CA55-D6R3227TE040	138	8	40	2.37	1.66
220	C	CA55-C6R3227TE045	138	8	45	1.97	1.38
330	V	CA55-V6R3337TE035	207	10	35	3.20	2.24
330	E	CA55-E6R3337TE040	207	8	40	2.50	1.75
330	D	CA55-D6R3337TE040	207	8	40	2.37	1.66
470	V	CA55-V6R3477TE035	296	10	35	3.20	2.24
470	E	CA55-E6R3477TE035	296	8	35	2.67	1.87
470	D	CA55-D6R3477TE040	296	10	40	2.37	1.66
680	W	CA55-W6R3687TE030	428	10	30	3.56	2.49
680	V	CA55-V6R3687TE030	428	10	30	3.46	2.42
680	E	CA55-E6R3687TE030	428	10	30	2.88	2.02
1000	G	CA55-G6R3108TE030	630	10	30	4.08	2.86
1000	W	CA55-W6R3108TE030	630	10	30	3.56	2.49
1000	V	CA55-V6R3108TE035	630	10	35	3.20	2.24
1500	G	CA55-G6R3158TE030	945	12	30	4.08	2.86
1500	W	CA55-W6R3158TE030	945	12	30	3.56	2.49
2200	G	CA55-G6R3228TE030	1386	12	30	4.08	2.86
10 Volt. Rating							
10	B	CA55-B010106TE090	10	6	90	1.17	0.82
10	A	CA55-A010106TE120	10	8	120	0.91	0.64
15	B	CA55-B010156TE090	15	6	90	1.17	0.82
15	A	CA55-A010156TE120	15	8	120	0.91	0.64
22	B	CA55-B010226TE080	22	6	80	1.24	0.87
22	A	CA55-A010226TE120	22	8	120	0.91	0.64
33	C	CA55-C010336TE070	33	6	70	1.58	1.11
33	B	CA55-B010336TE070	33	8	70	1.24	0.87
47	C	CA55-C010476TE055	47	6	55	1.78	1.25

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STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
10 Volt. Rating							
47	B	CA55-B010476TE055	47	8	70	1.33	0.93
68	V	CA55-V010686TE040	68	10	40	3.00	2.10
68	E	CA55-E010686TE040	68	10	40	2.50	1.75
68	D	CA55-D010686TE045	68	6	45	2.23	1.56
68	C	CA55-C010686TE045	68	6	45	1.97	1.38
100	V	CA55-V010107TE035	100	10	35	3.20	2.24
100	E	CA55-E010107TE040	100	10	40	2.50	1.75
100	D	CA55-D010107TE040	100	8	40	2.37	1.66
100	C	CA55-C010107TE045	100	8	45	1.97	1.38
150	V	CA55-V010157TE035	150	10	35	3.20	2.24
150	E	CA55-E010157TE040	150	8	40	2.50	1.75
150	D	CA55-D010157TE040	150	8	40	2.44	1.71
150	C	CA55-C010157TE055	150	10	55	1.78	1.25
220	V	CA55-V010227TE035	220	10	35	3.20	2.24
220	E	CA55-E010227TE040	220	8	40	2.50	1.75
220	D	CA55-D010227TE040	220	8	40	2.37	1.66
330	V	CA55-V010337TE040	330	8	40	3.00	2.10
330	E	CA55-E010337TE040	330	8	40	2.50	1.75
330	D	CA55-D010337TE050	330	10	50	2.11	1.48
470	W	CA55-W010477TE035	470	10	35	3.30	2.31
470	V	CA55-V010477TE040	470	10	40	3.00	2.10
470	E	CA55-E010477TE050	470	10	50	2.23	1.56
680	G	CA55-G010687TE030	680	10	30	4.08	2.86
680	W	CA55-W010687TE030	680	10	30	3.56	2.49
680	V	CA55-V010687TE030	680	10	30	3.46	2.42
1000	G	CA55-G010108TE030	1000	10	30	4.08	2.86
1000	W	CA55-W010108TE030	1000	10	30	3.56	2.49
2200	T	CA55-T010228TE030	2200	12	30	5.54	3.88
16 Volt. Rating							
4.7	B	CA55-B016475TE150	7.5	6	150	0.91	0.64
4.7	A	CA55-A016475TE250	7.5	8	250	0.63	0.44
6.8	C	CA55-C016685TE100	10.8	10	100	1.32	0.92
6.8	B	CA55-B016685TE150	10.8	6	150	0.91	0.64
6.8	A	CA55-A016685TE200	10.8	8	200	0.70	0.49
10	C	CA55-C016106TE080	16	6	80	1.47	1.03

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STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
16 Volt. Rating							
10	B	CA55-B016106TE100	16	6	100	1.11	0.78
10	A	CA55-A016106TE200	16	8	200	0.70	0.49
15	C	CA55-C016156TE080	24	8	80	1.47	1.03
15	B	CA55-B016156TE090	24	6	90	1.17	0.82
22	D	CA55-D016226TE070	35.2	10	70	1.79	1.25
22	C	CA55-C016226TE080	35.2	6	80	1.47	1.03
22	B	CA55-B016226TE150	35.2	8	150	0.91	0.64
33	D	CA55-D016336TE060	52.8	6	60	1.93	1.35
33	C	CA55-C016336TE080	52.8	8	80	1.47	1.03
47	V	CA55-V016476TE045	75.2	10	45	2.82	1.97
47	E	CA55-E016476TE050	75.2	10	50	2.23	1.56
47	D	CA55-D016476TE050	75.2	6	50	2.11	1.48
47	C	CA55-C016476TE070	75.2	6	70	1.58	1.11
68	V	CA55-V016686TE045	108	10	45	2.82	1.97
68	E	CA55-E016686TE050	108	10	50	2.23	1.56
68	D	CA55-D016686TE050	108	6	50	2.11	1.48
68	C	CA55-C016686TE070	108	8	70	1.58	1.11
100	V	CA55-V016107TE040	160	10	40	3.00	2.10
100	E	CA55-E016107TE040	160	8	40	2.50	1.75
100	D	CA55-D016107TE050	160	8	50	2.11	1.48
150	V	CA55-V016157TE040	240	10	40	3.00	2.10
150	E	CA55-E016157TE040	240	8	40	2.50	1.75
150	D	CA55-D016157TE050	240	10	50	2.11	1.48
220	V	CA55-V016227TE035	352	8	35	3.20	2.24
220	E	CA55-E016227TE035	352	8	35	2.67	1.87
220	D	CA55-D016227TE055	352	12	55	2.02	1.41
330	W	CA55-W016337TE035	528	8	35	3.30	2.31
330	V	CA55-V016337TE045	528	8	45	2.83	1.98
330	E	CA55-E016337TE050	528	10	50	2.23	1.56
470	G	CA55-G016477TE035	752	10	35	3.77	2.64
470	W	CA55-W016477TE035	752	10	35	3.30	2.31
680	G	CA55-G016687TE035	1088	10	35	3.77	2.64
1000	T	CA55-T016108TE035	1600	10	35	5.13	3.59
1500	T	CA55-T016158TE035	2400	12	35	5.13	3.59
20 Volt. Rating							

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STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE	DF % MAX	ESR 100KHZ	Ripple current	
			uA	at 120HZ	m Ω	100KHz A	
			At 25°C MAX	25°C	at 25°C MAX	+25°C	+85°C
20 Volt. Rating							
10	C	CA55-C020106TE080	20	6	80	1.47	1.03
10	B	CA55-B020106TE100	20	8	100	1.11	0.78
15	D	CA55-D020156TE070	30	6	70	1.78	1.25
15	C	CA55-C020156TE080	30	6	80	1.47	1.03
15	B	CA55-B020156TE090	30	8	90	1.17	0.82
22	D	CA55-D020226TE060	44	6	60	1.94	1.36
22	C	CA55-C020226TE090	44	6	90	1.40	0.98
22	B	CA55-B020226TE150	44	8	150	0.91	0.64
33	V	CA55-V020336TE050	66	10	50	2.68	1.87
33	E	CA55-E020336TE060	66	10	60	2.04	1.42
33	D	CA55-D020336TE060	66	6	60	1.94	1.36
33	C	CA55-C020336TE090	66	8	90	1.40	0.98
47	V	CA55-V020476TE050	94	10	50	2.68	1.87
47	E	CA55-E020476TE050	94	6	50	2.23	1.56
47	D	CA55-D020476TE055	94	6	55	2.03	1.42
47	C	CA55-C020476TE090	94	8	90	1.40	0.98
68	V	CA55-V020686TE045	136	10	45	2.82	1.97
68	E	CA55-E020686TE045	136	6	45	2.36	1.65
68	D	CA55-D020686TE055	136	6	55	2.03	1.42
100	V	CA55-V020107TE040	200	10	40	3.00	2.10
100	E	CA55-E020107TE045	200	8	45	2.36	1.65
100	D	CA55-D020107TE055	200	8	55	2.03	1.42
150	V	CA55-V020157TE050	300	8	50	2.68	1.88
150	E	CA55-E020157TE050	300	8	50	2.23	1.56
220	W	CA55-W020227TE040	440	10	40	3.08	2.16
220	V	CA55-V020227TE050	440	10	50	2.68	1.88
220	E	CA55-E020227TE050	440	10	50	2.23	1.56
330	G	CA55-G020337TE040	660	10	40	3.53	2.47
470	G	CA55-G020477TE040	660	10	40	3.53	2.47
680	T	CA55-T020687TE040	1360	10	40	4.80	3.36
1000	T	CA55-T020108TE040	2000	10	40	4.80	3.36
25 Volt. Rating							
4.7	C	CA55-T025475TE150	11.7	6	150	1.08	0.76
4.7	B	CA55-B025475TE150	11.7	6	150	0.91	0.64

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE	DF % MAX	ESR 100KHZ	Ripple current	
			uA At 25°C MAX	at 120HZ 25°C	m Ω at 25°C MAX	100KHz A +25°C +85°C	
25 Volt. Rating							
6.8	D	CA55-D025685TE100	17	10	100	1.50	1.05
6.8	C	CA55-C025685TE150	17	6	150	1.08	0.76
6.8	B	CA55-B025685TE150	17	6	150	0.91	0.64
10	D	CA55-D025106TE090	25	10	90	1.58	1.10
10	C	CA55-C025106TE100	25	6	100	1.33	0.93
10	B	CA55-B025106TE150	25	6	150	0.91	0.64
15	D	CA55-D025156TE080	37.5	6	80	1.67	1.17
15	C	CA55-C025156TE100	37.5	6	100	1.33	0.93
15	B	CA55-B025156TE150	37.5	8	150	0.91	0.64
22	V	CA55-V025226TE070	55	10	70	2.26	1.58
22	E	CA55-E025226TE075	55	10	75	1.82	1.27
22	D	CA55-D025226TE075	55	6	75	1.73	1.21
22	C	CA55-C025226TE100	55	8	100	1.33	0.93
33	V	CA55-V025336TE055	82.5	10	55	2.55	1.78
33	E	CA55-V025336TE060	82.5	6	60	2.04	1.43
33	D	CA55-D025336TE060	82.5	8	60	1.94	1.36
47	V	CA55-D025476TE050	117	10	50	2.68	1.88
47	E	CA55-E025476TE050	117	6	50	2.23	1.56
47	D	CA55-D025476TE060	117	8	60	1.94	1.36
68	V	CA55-V025686TE050	170	6	50	2.68	1.88
68	E	CA55-E025686TE050	170	6	50	2.23	1.56
68	D	CA55-D025686TE070	170	8	70	1.78	1.25
100	W	CA55-W025107TE050	250	8	50	2.76	1.93
100	V	CA55-V025107TE060	250	8	60	2.44	1.71
100	E	CA55-E025107TE060	250	8	60	2.04	1.43
150	G	CA55-G025157TE050	375	10	50	3.16	2.21
150	W	CA55-W025157TE050	375	10	50	2.76	1.93
150	V	CA55-V025157TE050	375	10	50	2.68	1.88
220	G	CA55-G025227TE050	550	10	50	3.16	2.21
220	W	CA55-W025227TE050	550	10	50	2.76	1.93
330	T	CA55-T025337TE050	825	10	50	4.28	3.00
330	G	CA55-G025337TE050	825	10	50	3.16	2.21
470	T	CA55-T025477TE050	1175	10	50	4.28	3.00
35 Volt. Rating							
4.7	D	CA55-D035475TE120	16.4	10	120	1.36	0.95

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
35 Volt. Rating							
4.7	C	CA55-C035475TE200	16.4	6	200	0.93	0.65
4.7	B	CA55-B035475TE200	16.4	6	200	0.78	0.55
6.8	D	CA55-D035685TE090	23.8	6	90	1.58	1.11
6.8	C	CA55-C035685TE200	23.8	6	200	0.93	0.65
6.8	B	CA55-B035685TE200	23.8	8	200	0.78	0.55
10	D	CA55-D035106TE090	35.0	6	90	1.58	1.11
10	C	CA55-C035106TE200	35.0	6	200	0.93	0.65
15	V	CA55-V035156TE070	52.5	10	70	2.26	1.58
15	E	CA55-E035156TE075	52.5	10	75	1.82	1.27
15	D	CA55-D035156TE075	52.5	6	75	1.78	1.25
15	C	CA55-C035156TE200	52.5	8	200	0.93	0.65
22	V	CA55-V035226TE090	77.0	6	90	2.00	1.40
22	E	CA55-E035226TE090	77.0	6	90	1.67	1.17
22	D	CA55-D035226TE090	77.0	6	90	1.58	1.11
33	V	CA55-V035336TE065	115.5	6	65	2.36	1.65
33	E	CA55-E035336TE065	115.5	6	65	1.96	1.37
33	D	CA55-D035336TE070	115.5	8	70	1.78	1.25
47	W	CA55-W035476TE065	164.5	6	65	2.41	1.69
47	V	CA55-V035476TE070	164.5	6	70	2.36	1.65
47	E	CA55-E035476TE070	164.5	8	70	1.96	1.37
68	G	CA55-G035686TE065	238.0	8	65	2.77	1.94
68	W	CA55-W035686TE065	238.0	10	65	2.41	1.69
68	V	CA55-V035686TE065	238.0	10	65	2.36	1.65
100	G	CA55-G035107TE065	350.0	10	65	2.77	1.94
100	W	CA55-W035107TE065	350.0	10	65	2.41	1.69
150	G	CA55-G035157TE065	525.0	10	65	2.77	1.94
220	T	CA55-T035227TE065	770.0	10	65	3.76	2.63
330	T	CA55-T035337TE065	1155.0	10	65	3.76	2.63
50 Volt. Rating							
1.0	C	CA55-C050105TE200	5.0	6	200	0.93	0.65
1.0	B	CA55-B050105TE300	5.0	6	300	0.64	0.45
1.5	D	CA55-D050155TE200	7.5	10	200	1.06	0.74
1.5	C	CA55-C050155TE200	7.5	6	200	0.93	0.65
1.5	B	CA55-B050155TE300	7.5	6	300	0.64	0.45
2.2	D	CA55-D050225TE200	11.0	6	200	1.06	0.74

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
50 Volt. Rating							
2.2	C	CA55-C050225TE200	11.0	6	200	0.93	0.65
2.2	B	CA55-B050225TE350	11.0	8	350	0.60	0.42
3.3	D	CA55-D050335TE100	16.5	6	100	1.50	1.05
3.3	C	CA55-C050335TE200	16.5	6	200	0.93	0.65
4.7	D	CA55-D050475TE100	23.5	6	100	1.50	1.05
4.7	C	CA55-C050475TE200	23.5	6	200	0.93	0.65
6.8	V	CA55-V050685TE090	34.0	10	90	2.00	1.40
6.8	E	CA55-E050685TE090	34.0	6	90	2.38	1.67
6.8	D	CA55-D050685TE090	34.0	6	90	1.58	1.11
6.8	C	CA55-C050685TE200	34.0	8	200	0.93	0.65
10	V	CA55-V050106TE100	50.0	6	100	1.90	1.33
10	E	CA55-E050106TE100	50.0	6	100	1.58	1.11
10	D	CA55-D050106TE120	50.0	8	120	1.37	0.96
15	W	CA55-W050156TE075	75.0	6	75	2.24	1.57
15	V	CA55-V050156TE100	75.0	6	100	1.90	1.33
15	E	CA55-E050156TE100	75.0	6	100	1.58	1.11
22	W	CA55-W050226TE075	110.0	6	75	2.24	1.57
22	V	CA55-V050226TE100	110.0	6	100	1.90	1.33
22	E	CA55-E050226TE100	110.0	8	100	1.58	1.11
22	D	CA55-D050226TE100	110.0	8	100	1.50	1.05
33	G	CA55-G050336TE075	165.0	8	75	2.58	1.81
33	W	CA55-W050336TE075	165.0	8	75	2.24	1.73
33	V	CA55-V050336TE100	165.0	8	100	1.90	1.33
33	E	CA55-E050336TE100	165.0	8	100	1.58	1.11
47	G	CA55-G050476TE050	235.0	8	50	2.58	1.81
47	W	CA55-W050476TE075	235.0	8	75	2.24	1.57
47	V	CA55-V050476TE090	235.0	10	90	2.00	1.40
68	G	CA55-G050686TE075	340.0	8	75	2.58	1.81
68	W	CA55-W050686TE090	340.0	8	90	2.05	1.44
68	V	CA55-V050686TE090	340.0	10	90	2.00	1.40
100	T	CA55-T050107TE075	500.0	10	75	3.50	2.45
150	T	CA55-T050157TE075	750.0	10	75	3.50	2.45
63 Volt. Rating							
0.68	C	CA55-C063684TE200	5.0	6	200	0.93	0.65
0.68	B	CA55-B063684TE300	5.0	6	300	0.64	0.45

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STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
63 Volt. Rating							
1.0	C	CA55-C063105TE200	6.3	6	200	0.93	0.65
1.0	B	CA55-B063105TE300	6.3	8	300	0.64	0.45
1.5	D	CA55-D063155TE120	9.5	6	120	1.37	0.96
1.5	C	CA55-C063155TE200	9.5	6	200	0.93	0.65
2.2	D	CA55-D063225TE120	13.9	6	120	1.37	0.96
2.2	C	CA55-C063225TE200	13.9	6	200	0.93	0.65
3.3	D	CA55-D063335TE120	20.8	6	120	1.37	0.96
3.3	C	CA55-C063335TE200	20.8	6	200	0.93	0.65
4.7	E	CA55-E063475TE120	29.6	6	120	1.44	1.01
4.7	D	CA55-D063475TE120	29.6	6	120	1.37	0.96
4.7	C	CA55-C063475TE200	29.6	8	200	0.93	0.65
6.8	V	CA55-V063685TE120	42.8	10	120	1.73	1.21
6.8	E	CA55-E063685TE120	42.8	6	120	1.44	1.01
6.8	D	CA55-D063685TE120	42.8	8	120	1.37	0.96
10	V	CA55-V063106TE100	63.0	6	100	1.90	1.33
10	E	CA55-E063106TE100	63.0	6	100	1.58	1.11
10	D	CA55-D063106TE120	63.0	8	120	1.37	0.96
15	W	CA55-W063156TE075	94.5	6	75	2.24	1.57
15	V	CA55-V063156TE100	94.5	6	100	1.90	1.33
15	E	CA55-E063156TE100	94.5	8	100	1.58	1.11
22	G	CA55-G063226TE075	138.6	8	75	2.58	1.81
22	W	CA55-W063226TE075	138.6	8	75	2.24	1.57
22	V	CA55-V063226TE100	138.6	8	100	1.90	1.33
33	G	CA55-G063336TE075	207.9	8	75	2.58	1.81
33	W	CA55-W063336TE075	207.9	8	75	2.24	1.57
47	G	CA55-G063476TE075	296.1	8	75	2.58	1.81
47	W	CA55-W063476TE075	296.1	12	75	2.24	1.57
68	T	CA55-T063686TE075	428.4	8	75	3.50	2.45
68	G	CA55-G063686TE075	428.4	10	75	2.50	1.75
100	T	CA55-T063107TE075	630.0	10	75	3.5	2.45
75 Volt. Rating							
0.33	B	CA55-B075334TE400	5.0	10	400	0.55	0.39
0.33	A	CA55-A075334TE800	5.0	10	800	0.35	0.24
0.47	C	CA55-C075474TE250	5.0	6	250	0.84	0.59
0.47	B	CA55-B075474TE350	5.0	6	350	0.60	0.42

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
75 Volt. Rating							
0.68	C	CA55-C075684TE250	5.1	6	250	0.84	0.59
0.68	B	CA55-B075684TE350	5.1	8	350	0.60	0.42
1.0	D	CA55-D075105TE120	7.5	6	120	1.37	0.96
1.0	C	CA55-C075105TE250	7.5	6	250	0.84	0.59
1.5	D	CA55-D075155TE120	11.3	6	120	1.37	0.96
1.5	C	CA55-C075155TE250	11.3	6	250	0.84	0.59
2.2	D	CA55-D075225TE120	16.5	6	120	1.37	0.96
2.2	C	CA55-C075225TE250	16.5	8	250	0.84	0.59
3.3	E	CA55-E075335TE120	24.8	6	120	1.44	1.01
3.3	D	CA55-D075335TE120	24.8	6	120	1.37	0.96
4.7	V	CA55-V075475TE120	35.3	6	120	1.73	1.21
4.7	E	CA55-E075475TE120	35.3	6	120	1.44	1.01
4.7	D	CA55-D075475TE150	35.3	6	150	1.23	0.86
6.8	V	CA55-V075685TE120	51.0	6	120	1.73	1.20
6.8	E	CA55-E075685TE120	51.0	8	120	1.44	1.00
6.8	D	CA55-D075685TE120	51.0	8	120	1.37	0.96
10	W	CA55-W075106TE100	75.0	6	100	1.94	1.36
10	V	CA55-V075106TE120	75.0	8	120	1.73	1.21
10	E	CA55-E075106TE120	75.0	10	120	1.44	1.00
15	W	CA55-W075156TE100	112.5	10	100	1.95	1.36
15	V	CA55-V075156TE120	112.5	10	120	1.73	1.21
22	G	CA55-G075226TE100	165.0	10	100	2.24	1.56
22	W	CA55-W075226TE100	165.0	10	100	1.95	1.36
33	T	CA55-T075336TE120	247.5	12	120	3.39	2.37
47	T	CA55-T075476TE120	352.5	12	120	2.77	1.94
68	T	CA55-T075686TE120	510.0	12	120	2.77	1.94
100	T	CA55-T075107TE120	750.0	12	120	2.77	1.94
100 Volt. Rating							
0.1	A	CA55-A100104TE800	5.0	10	800	0.35	0.24
0.15	B	CA55-B100154TE600	5.0	10	600	0.45	0.31
0.15	A	CA55-A100154TE800	5.0	10	800	0.35	0.24
0.22	B	CA55-B100224TE600	5.0	10	600	0.45	0.31
0.22	A	CA55-A100224TE800	5.0	10	800	0.35	0.24
0.33	C	CA55-C100334TE300	5.0	10	300	0.76	0.53
0.33	B	CA55-B100334TE500	5.0	10	500	0.50	0.35

CA55 Conductive Polymer Chip Tantalum Capacitors

STANDARD RATING							
CAPACITANCE uF	CASE SIZE	PART NUMBER	DC LEAKAGE uA At 25°C MAX	DF % MAX at 120HZ 25°C	ESR 100KHZ m Ω at 25°C MAX	Ripple current 100KHz A	
						+25°C	+85°C
100 Volt. Rating							
0.47	C	CA55-C100474TE300	5.0	6	300	0.76	0.53
0.47	B	CA55-B100474TE400	5.0	8	400	0.56	0.39
0.68	D	CA55-D100684TE120	6.8	6	120	1.37	0.96
0.68	C	CA55-C100684TE300	6.8	6	300	0.76	0.53
1.0	D	CA55-D100105TE150	10.0	6	150	1.23	0.86
1.0	C	CA55-C100105TE300	10.0	8	300	0.76	0.53
1.5	E	CA55-E100155TE150	15.0	6	150	1.28	0.90
1.5	D	CA55-D100155TE300	15.0	8	300	1.23	0.86
2.2	V	CA55-V100225TE150	22.0	6	150	1.54	1.08
2.2	E	CA55-E100225TE150	22.0	8	150	1.28	0.90
3.3	W	CA55-W100335TE125	33.0	6	125	1.74	1.22
3.3	V	CA55-V100335TE150	33.0	6	150	1.54	1.08
4.7	W	CA55-W100475TE125	47.0	6	125	1.74	1.22
4.7	V	CA55-V100475TE150	47.0	8	150	1.54	1.08
4.7	E	CA55-E100475TE250	47.0	8	250	0.94	0.66
6.8	W	CA55-W100685TE125	68.0	6	125	1.74	1.22
6.8	V	CA55-V100685TE150	68.0	8	150	1.54	1.08
10	W	CA55-W100106TE150	100.0	10	150	1.59	1.11
15	G	CA55-G100156TE100	150.0	12	100	2.23	1.56
22	T	CA55-T100226TE100	220.0	12	100	3.03	2.12
33	T	CA55-T100336TE100	330.0	12	100	3.03	2.12

Series CSP (CA55)

Polymer Solid Electrolytic Tantalum SMD Capacitors

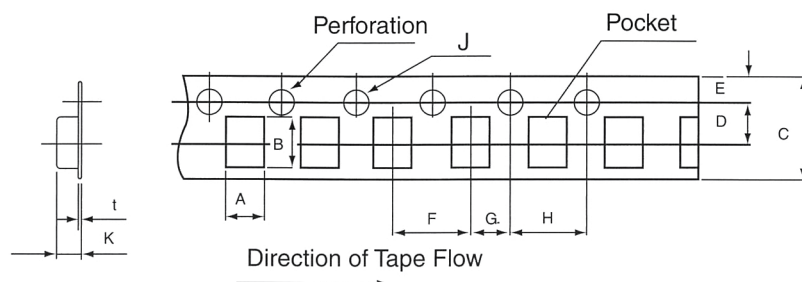


Carrier Tape Packaging Specification Explanation Of Part Numbers

CA55	C	6R3	2 2 7	T&B	R	065
Series Code	Case Size	Rated Voltage	Nominal Capacitance	Carrier Tape & Boxed	Polarity Orientation	ESR

Dimensions of the carrier tape and standard parts quantity per reel.

Dimensions

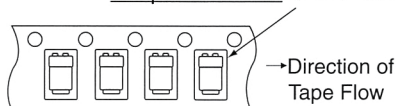


(Unit:mm)

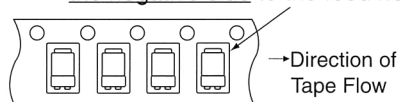
CASE SIZE	A ±0.1	B ±0.1	C ±0.3	D ±0.1	E ±0.1	F ±0.1	G ±0.1	H ±0.1	J +0.1 -0	K MAX	t	Quantity Per Reel
A	1.9	3.5	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
B	3.1	3.8	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
C	3.6	6.4	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.0	0.3	500
D	4.7	7.7	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.4	0.3	500
E	4.6	7.6	12.0	5.5	1.75	8.0	2.0	4.0	1.5	4.6	0.3	500

Inserting Direction (Polarity Orientation)

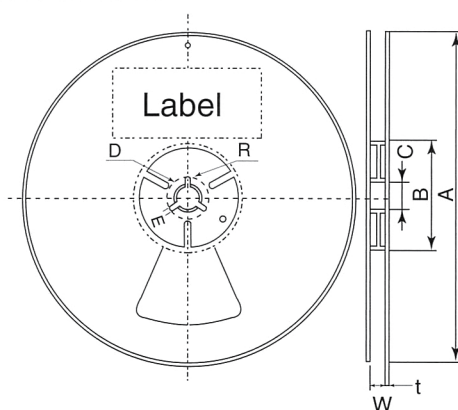
Polarity L: To be inserted with the positive side to the feed hole.



Polarity R: To be inserted with the negative side to the feed hole.



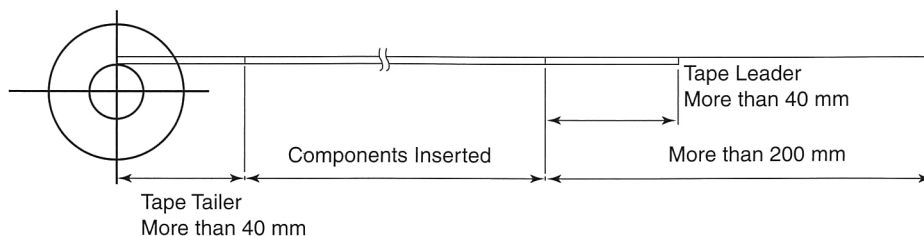
Reel Dimensions



(Unit:mm)

Tape width	8	12
A ₃ ⁰	ø 180	←
B ₀ ⁺¹	ø 60	←
C ± 0.2	ø 13	←
D ± 0.8	ø 21	←
E ± 0.5	2.0	←
W ± 0.3	9.0	13.0
t ± 0.4	1.3	←
R ± 0.4	10.5	←

Tape Leader and Tailer



Series CTN (CA70)

Metal Case Tantalum Capacitors Axial Type Nonpolar Solid Electrolytic



Features:

- Solid electrolytic.
- Nonpolar Type.
- Hermetically sealed metal cases.
- Axial leads.
- General purpose-extended range.



SPECIFICATION:

Item	Performance Characteristics																																									
Operating Temperature Range	-55 to + 125°C																																									
Rated Working Voltage Range	6.3 to 35 V DC																																									
Nominal Capacitance Range	0.22 to 100 μF																																									
Capacitance Tolerance	±20% (120Hz, +20°C) ± 10%																																									
Leakage Current	Not more than 0.01CV [μA] or 0.5μA whichever is greater																																									
tan δ (120Hz, +20°C)	0.04 max. for ≤ 0.47μF																																									
	0.06 max. for 0.68~33μF																																									
	0.08 max. for ≥ 47 μF																																									
Characteristics at High and Low Temperature	-55°C	Capacitance change	±10% of initial measured value at +20°C																																							
	+125°C	Leakage current	≤ 0.1 CV or 5 [μF] whichever is greater																																							
		Capactiance change	±15% of initial measured value at +20°C																																							
Moisture Resistance	Test conditions																																									
	Relative humidity : 90 to 95% without load																																									
	Ambient temperature : +60°C																																									
	Duration : 1000 hours																																									
	Post test requirements at + 20°C																																									
	Leakage current : ≤ 0.1 CV or 5[μA], whichever is greater																																									
	Capacitance change : ± 10% of initial measured value																																									
	tan δ : ≤ 200% of inital specified value																																									
Endurance	Test conditions																																									
	<table><tr><td>Conditions</td><td colspan="2">Derating</td><td colspan="3">Rating</td></tr><tr><td>Item</td><td colspan="2"></td><td colspan="3"></td></tr><tr><td>Duration</td><td colspan="2">2000 hours</td><td colspan="3">2000 hours</td></tr><tr><td>Ambient temperature</td><td colspan="2">+ 125°C</td><td colspan="3">+ 85°C</td></tr><tr><td>Applied voltage</td><td colspan="2">Derated working voltage</td><td colspan="3">Rated working voltage</td></tr><tr><td>Source impedance</td><td colspan="2">1Ω/V</td><td colspan="3">1Ω/V</td></tr></table>						Conditions	Derating		Rating			Item						Duration	2000 hours		2000 hours			Ambient temperature	+ 125°C		+ 85°C			Applied voltage	Derated working voltage		Rated working voltage			Source impedance	1Ω/V		1Ω/V		
	Conditions	Derating		Rating																																						
	Item																																									
	Duration	2000 hours		2000 hours																																						
	Ambient temperature	+ 125°C		+ 85°C																																						
	Applied voltage	Derated working voltage		Rated working voltage																																						
	Source impedance	1Ω/V		1Ω/V																																						
	Derating voltage + 125°C																																									
	<table><tr><td>Working voltage [V] DC</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td></tr><tr><td>Derating voltage [V] DC</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>22</td></tr></table>						Working voltage [V] DC	6.3	10	16	25	35	Derating voltage [V] DC	4	6.3	10	16	22																								
	Working voltage [V] DC	6.3	10	16	25	35																																				
	Derating voltage [V] DC	4	6.3	10	16	22																																				
	Post test requirements at +20°C																																									
	Leakage current : ≤ 125% of initial specified value																																									
Capacitance change : ± 10% of initial measured value																																										
tan δ : ≤ Initial specified value																																										
Impedance : ≤ 200% of initial specified value																																										
Shelf Life	Test conditions																																									
	Duration : 2000 hours			Post test requirements at +20°C																																						
	Ambient temperature : +125°C			Same litits of "Endurance".																																						
	Applied voltage : (none)																																									

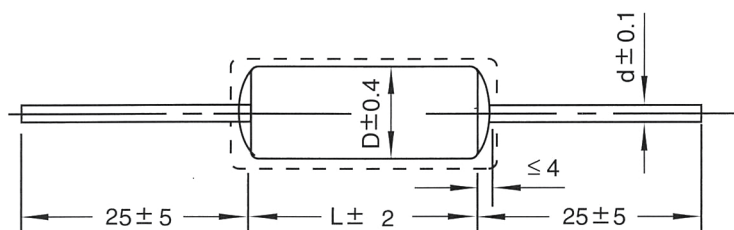
Series CTN (CA70)

Metal Case Tantalum Capacitors Explnation of Part Numbers



CTN	1 V	335	M	B	B
Series Code	Rated Voltage	Nominal Capacitance	Capacitance Tolerance	Case Size	Packing

TANTALUM CAPACITOR METAL CASE OUTLINE DRAWING



Dimensions Millimeters mm

Case Size	A	B	C	D
D x L	4 x 16	6 x 25	7 x 30	9 x 30
d ± 0.1	0.4	0.6	0.6	0.8

Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	6.3	10	16	25	35
Code	0J	1A	1C	1E	1V
Capacitance (μF)	Case Size				
0.22 (224)					A
0.33 (334)					A
0.47 (474)					A
0.68 (684)					A
1.0 (105)			A	A	A
1.5 (155)			A	A	A
2.2 (225)		A	A	B	A
3.3 (335)		A	A	B	B
4.7 (475)	A	A	B	B	B
6.8 (685)	A	B	B	B	C
10 (106)	B	B	B	B	C
15 (156)	B	B	B	C	
22 (226)	B	B	B	C	
33 (336)	B	B	C	D	
47 (476)	B	C	C		
68 (686)	C	C	D		
100 (107)	C				

Series CTS (SCA)

Metal Case Tantalum Capacitors Axial Type Solid Electrolytic



FEatures:

- Solid electrolytic.
- Polar type.
- Hermetically sealed metal cases.
- Axial leads.
- General purpose-extended range.



SPECIFICATION:

Item	Performance Characteristics																																		
Operating Temperature Range	-55 to + 125°C																																		
Rated Working Voltage Range	6.3 to 35 V DC																																		
Nominal Capacitance Range	1.0 to 330 μF																																		
Capacitance Tolerance	±20% (120Hz, +20°C) ± 10%																																		
Leakage Current	Not more than 0.01CV [μA] or 0.5μA whichever is greater																																		
tan δ (120Hz, +20°C)	0.04 max. for ≤ 4.7μF																																		
	0.06 max. for 6.8~68μF																																		
	0.08 max. for 100~330 μF																																		
Characteristics at High and Low Temperature	-55°C	Capacitance change	±10% of initial measured value at +20°C																																
	+125°C	Leakage current	≤ 0.1 CV or 5 [μF] whichever is greater																																
		Capactiance change	±15% of initial measured value at +20°C																																
Moisture Resistance	Test conditions																																		
	Relative humidity : 90 to 95% without load																																		
	Ambient temperature : +60°C																																		
	Duration : 1000 hours																																		
	Post test requirements at + 20°C																																		
	Leakage current : ≤ 0.1 CV or 5[μA], whichever is greater																																		
	Capacitance change : ± 10% of initial measured value																																		
	tan δ : ≤ 200% of inital specified value																																		
Endurance	Test conditions																																		
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	Conditions	Derating		Rating																															
	Item																																		
	Duration	2000 hours		2000 hours																															
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	Derating voltage + 125°C																																		
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	Applied voltage : (none)																																		

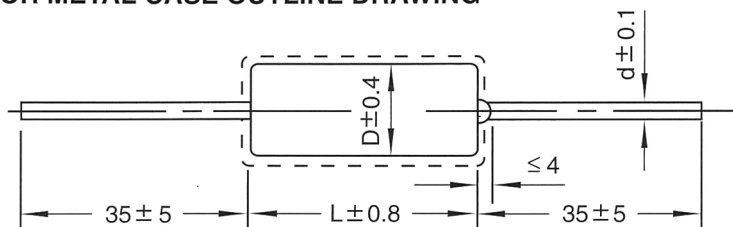
Series CTS (SCA)

Metal Case Tantalum Capacitors Explanation of Part Numbers



CTS	1 V	335	M	B	B
Series Code	Rated Voltage	Nominal Capacitance	Capacitance Tolerance	Case Size	Packing

TANTALUM CAPACITOR METAL CASE OUTLINE DRAWING



Dimensions Millimeters mm

Case Size	A	B	C	D
D x L	3.2 x 8	5 x 12	6 x 14	8 x 14
d ± 0.1	0.4	0.6	0.6	0.8

Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	6.3	10	16	25	35
Code	0J	1A	1C	1E	1V
Capacitance (μF)	Case Size				
1.0 (105)					A
1.5 (155)					A
2.2 (225)				A	A
3.3 (335)				A	B
4.7 (475)			A	B	B
6.8 (685)			A	B	B
10 (106)		A	B	B	B
15 (156)		B	B	B	C
22 (226)		B	B	B	C
33 (336)		B	B	C	
47 (476)	B	B	B	C	
68 (686)	B	B	C	D	
100 (107)	B	C	C	D	
150 (157)	C	C	D		
220 (227)	C	D			
330 (337)	D				

Series CTW (CA30S)

Metal Case Tantalum Capacitors Axial Type Wet Electrolytic



FEATURES:

- Wet electrolytic.
- Polar type.
- Hermetically sealed metal cases.
- Axial leads.
- General purpose-extended range.



SPECIFICATION:

Item	Performance Characteristics																																																																																		
Operating Temperature Range	-55 to + 125°C																																																																																		
Rated Working Voltage Range	6.3 to 125 V DC																																																																																		
Nominal Capacitance Range	1.0 to 1000 μF																																																																																		
Capacitance Tolerance	±20% (120Hz, +20°C) ± 10%																																																																																		
Leakage Current	Not more than 0.001CV [μA] or 1.0μA whichever is greater																																																																																		
tan δ (120Hz, +20°C)	See Next Page																																																																																		
Characteristics at High and Low Temperature	-55°C	Capacitance change					±10% of initial measured value at +20°C																																																																												
	+125°C	Leakage current					≤ 0.01 CV or 10 [μA] whichever is greater																																																																												
		Capactiance change					±15% of initial measured value at +20°C																																																																												
Moisture Resistance	Test conditions																																																																																		
	Relative humidity : 90 to 95% without load																																																																																		
	Ambient temperature : +60°C																																																																																		
	Duration : 1000 hours																																																																																		
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Endurance	Test conditions																																																																																		
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	Conditions						Derating			Rating																																																																									
	Item																																																																																		
	Duration						2000 hours			2000 hours																																																																									
	Ambient temperature						+ 125°C			+ 85°C																																																																									
	Applied voltage						Derated working voltage			Rated working voltage																																																																									
	Source impedance						1Ω/V			1Ω/V																																																																									
	Derating voltage + 125°C																																																																																		
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	Working voltage [V] DC	6.3	10	16	25	32	40	63	75	100	125																																																																								
	Derating voltage [V] DC	4	6.3	10	16	20	25	40	50	63	80																																																																								
	Post test requirements at +20°C																																																																																		
	Leakage current : ≤ 125% of initial specified value																																																																																		
	Capacitance change : ± 10% of initial measured value																																																																																		
tan δ : ≤ Initial specified value																																																																																			
Impedance : ≤ 200% of initial specified value																																																																																			
Shelf Life	Test conditions																																																																																		
	Post test requirements at +20°C																																																																																		
	Duration : 2000 hours Same litits for "Endurance".																																																																																		
	Ambient temperature : +125°C																																																																																		
	Applied voltage : (none)																																																																																		

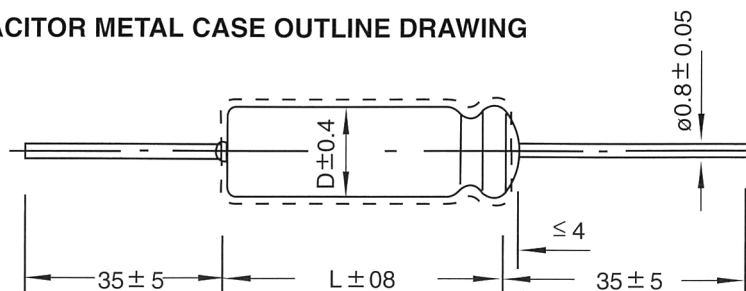
Series CTW (CA30S)

Metal Case Tantalum Capacitors Explanation of Part Numbers



CTW	1 J	3 3 5	M	A	B
Series Code	Rated Voltage	Nominal Capacitance	Capacitance Tolerance	Case Size	Packing

TANTALUM CAPACITOR METAL CASE OUTLINE DRAWING



Dimensions Millimeters mm

Case Size	A	B	C	D	E
D x L	4 x 12	5 x 14	6 x 16	8 x 16	8 x 22
d ± 0.05	0.8	0.8	0.8	0.8	0.8

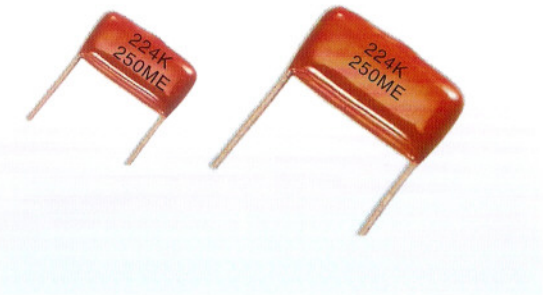
Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	10	16	25	40	63	100	125
Code	1A	1C	1E	1G	1J	2A	2E
Capacitance (μF)	Case Size						
1.0 (105)						A	A
1.5 (155)						A	A
2.2 (225)						A	A
3.3 (335)						A	B
4.7 (475)						B	B
6.8 (685)						B	C
10 (106)					A	B	C
15 (156)					B	C	C
22 (226)					B	C	D
33 (336)				B	C	D	
47 (476)				B	D	D	
68 (686)			B	C	D		
100 (107)			B	C	E		
150 (157)		B	C	D	E		
220 (227)	B	C	C	D	E		
330 (337)	C	D	D				
470 (477)	D	D					
680 (687)							
1000 (108)							

Rated voltage UR (V)	10	16	25	40	63	100	125
Rated capacitor (μF)	tan δ (120 Hz) %						
1.0~4.7						6	6
6.8						8	8
10					8	10	15
15					10	18	15
22					18	15	20
33				12	12	25	
47				25	25	28	
68			30	20	25		
100			25	35	20		
150		35	50	35	28		
220	45	60	50	30			
330	70	70	40				
470	75	50					
680							
1000							

ME SERIES金屬化聚乙脂膜電容器系列

METALLIZED POLYESTER FILM CAPACITOR TYPE:MPE(MEF)[CL21]



特點 Features

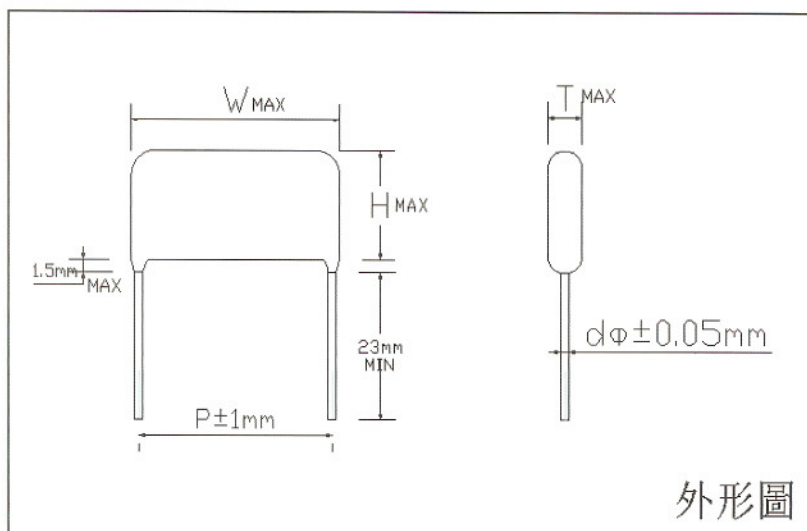
- 容量範圍寬、體積小、重量輕。
- 阻止濕度滲入特強。
- 無感型結構。
- 有自愈性。
- 高頻應用中具高可靠性及優良特點。
- 使用壽命長。
- 廣泛用於濾波,低脈沖電路。
- Wide capacitance range,small size and light weight
- High moisture resistance.
- Non-inductive construction.
- Self-healing property
- High reliable and superior performance in high frequency application
- Long life for using
- Widely used in filter and low pulse circuits

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 7332 (IEC 60384-2)
氣候類別 (Climatic Category)	50/100/56
容量範圍 (Capacitance Range)	0.001uf~15uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10% M :±20%
額定溫度 Rated Temperature	+85℃
使用工作溫度範圍 (Use the operating temperature range)	-40℃ ~+105℃ +85℃ ~+105℃:Decreasing factor 1.25% per℃ for V _R (DC)
工作電壓 (Operating Voltage)	100VDC,250VDC,400VDC,630VDC,1000VDC
損耗角正切 (Loss tangent)	≤1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥15000MΩ CR>0.33uF, IR≥5000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

ME SERIES金屬化聚乙脂膜電容器系列

外形圖 Outline Drawing



外形尺寸表 (* 可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (φ)
102	100	9.9	8.8	5.5	7.5	0.6
102	250	9.2	7.2	4.4	7.5	0.6
102	630	8.8	5.7	3.1	7.5	0.6
102	630	11.5	7.7	4.3	10	0.6
152	630	9.1	7.1	4.0	7.5	0.6
152	630	9.1	7.1	4.0	10	0.6
182	100	9.1	7.6	4.5	7.5	0.6
182	630	12.0	7.0	3.8	10	0.6
222	450	9.5	7.7	4.5	7.5	0.6
222	630	8.7	7.1	4.2	7.5	0.6
222	1000	11.1	6.9	3.8	10	0.6
272	400	8.8	6.4	3.7	7.5	0.6
332	400	11.3	6.2	3.5	10	0.6
332	630	11.4	6.8	3.7	10	0.6
392	250	11.1	6.4	3.7	10	0.6
472	400	8.2	6.4	3.4	7.5	0.6
472	400	11.5	6.6	3.8	10	0.6
472	630	8.8	7.3	4.4	7.5	0.6
472	630	11.4	7.8	5.0	10	0.6
562	250	11.2	7.5	4.4	10	0.6
562	400	8.7	7.0	4.0	7.5	0.6
562	400	11.1	6.5	3.5	10	0.6
562	630	11.5	7.1	4.2	10	0.6
682	630	11.5	7.2	3.8	10	0.6
103	100	8.5	6.0	3.0	7.5	0.6
103	250	11.1	7.8	4.2	10	0.6

ME SERIES金屬化聚乙脂膜電容器系列

外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
103	400	8.6	7.0	3.4	7.5	0.6
103	400	11.1	8.0	4.2	10	0.6
103	630	12.0	8.4	4.5	10	0.6
103	1000	11.4	9.2	5.5	10	0.6
123	400	11.0	6.0	3.1	10	0.6
123	630	12.1	8.4	5.0	10	0.6
153	250	11.0	6.4	3.2	10	0.6
153	400	8.6	7.2	3.8	7.5	0.6
153	400	11.0	6.3	3.6	10	0.6
153	630	11.0	8.0	4.3	10	0.6
183	63	8.7	7.7	4.3	7.5	0.6
183	630	11.3	8.6	5.0	10	0.6
223	250	8.8	8.1	4.5	7.5	0.6
223	250	11.2	7.3	3.6	10	0.6
223	400	9.0	8.0	4.7	7.5	0.6
223	400	11.3	7.211.3	3.6	10	0.6
223	630	11.0	9.1	5.2	10	0.6
273	400	8.5	8.2	4.6	7.5	0.6
273	400	11.2	7.9	4.1	10	0.6
333	63	8.7	6.4	3.3	7.5	0.6
333	250	11.2	7.8	4.4	10	0.6
333	400	8.5	6.8	3.9	7.5	0.6
333	630	11.7	10.5	6.6	10	0.6
333	630	16.7	9.2	5.2	15	0.6
393	250	11.5	8.4	4.4	10	0.6
473	250	8.4	6.8	3.6	7.5	0.6
473	250	11.2	6.6	3.3	10	0.6
473	400	8.7	9.6	5.8	7.5	0.6
473	400	11.1	8.8	5.0	10	0.6
473	630	11.6	12.7	12.7	10	0.6
563	400	8.6	8.3	4.8	7.5	0.6
563	400	11.0	9.1	5.4	10	0.6
683	250	8.8	8.0	4.8	7.5	0.6
683	250	10.8	7.0	3.3	10	0.6
683	400	11.7	9.6	5.7	10	0.6
823	250	11.4	7.8	4.0	10	0.6
823	400	11.7	10.3	6.3	10	0.6
104	100	8.5	7.0	4.1	7.5	0.6
104	100	11.3	7.1	3.6	10	0.6
104	250	8.7	9.1	5.4	7.5	0.6
104	250	11.5	7.8	4.6	10	0.6
104	400	11.9	11.0	6.3	10	0.6
104	400	16.3	9.4	5.1	15	0.8
104	630	17.0	12.8	7.7	15	0.8

ME SERIES金屬化聚乙脂膜電容器系列

外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
104	630	22.1	11.5	7.2	20	0.8
154	100	11.0	7.3	3.9	10	0.6
154	250	9.5	10.3	7.3	7.5	0.6
154	250	11.4	9.0	5.3	10	0.6
154	400	11.5	12.5	7.6	10	0.6
154	630	16.7	15.8	8.9	15	0.8
224	63	9.0	9.8	5.6	7.5	0.6
224	100	11.0	8.1	4.3	10	0.6
224	250	8.7	7.4	4.3	7.5	0.6
224	250	11.2	10.4	6.4	10	0.6
224	250	16.6	9.3	5.2	15	0.8
224	400	8.5	13.6	8.1	7.5	0.6
224	400	11.6	15.1	8.4	10	0.6
224	400	16.6	12.9	7.6	15	0.8
224	630	17.1	19.3	10.7	15	0.8
224	630	22.7	16.6	9.5	20	0.8
274	50	9.2	10.6	6.7	7.5	0.6
274	400	11.2	11.0	6.1	10	0.6
334	50	8.8	11.0	7.0	7.5	0.6
334	100	9.4	10.9	6.9	7.5	0.6
334	250	11.4	12.6	7.0	10	0.6
334	250	16.6	10.8	5.7	15	0.8
334	250	21.5	9.7	5.0	20	0.8
334	400	16.8	15.0	9.5	15	0.8
334	630	22.2	18.7	10.6	20	0.8
394	100	9.2	11.7	7.1	7.5	0.6
394	250	16.4	12.2	6.0	15	0.8
394	250	21.9	10.1	5.3	20	0.8
394	630	22.3	19.4	12.0	20	0.8
474	63	8.8	10.2	5.6	7.5	0.6
474	100	11.7	11.0	6.0	10	0.6
474	100	16.2	9.3	5.0	15	0.8
474	250	16.5	12.0	6.8	15	0.8
474	400	17.1	18.5	10.7	15	0.8
474	400	22.0	14.9	8.4	20	0.8
474	630	22.7	21.5	12.4	20	0.8
474	630	29.4	18.8	10.2	27.5	0.8
564	100	8.6	10.6	6.8	7.5	0.6
564	100	11.6	10.4	6.4	10	0.6
564	250	17.0	13.2	7.7	15	0.8
684	63	9.1	11.6	7.3	7.5	0.6
684	100	21.7	11.5	6.3	20	0.8
684	250	16.4	14.5	7.5	15	0.8
684	400	17.0	20.4	11.5	15	0.8

ME SERIES金屬化聚乙脂膜電容器系列

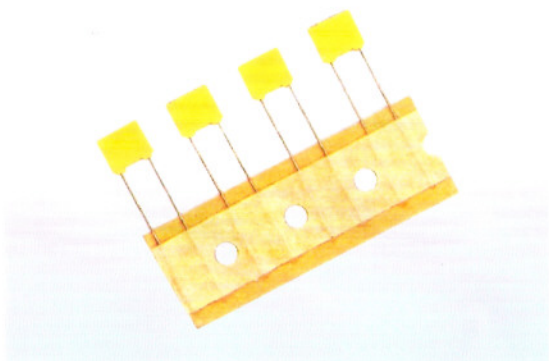
外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
684	400	22.1	17.9	10.7	20	0.8
684	400	28.6	14.9	6.8	27.5	0.8
684	630	22.3	23.0	14.8	20	0.8
824	100	16.6	11.4	7.0	15	0.8
824	250	16.6	14.9	7.9	15	0.8
824	250	21.2	13.9	7.2	20	0.8
824	400	21.5	15.4	7.6	20	0.8
824	400	29.9	17.5	9.1	27.5	0.8
105	250	11.5	14.0	8.4	10	0.6
105	250	16.5	15.0	8.5	15	0.8
105	250	16.5	16.6	8.9	15	0.8
105	400	22.6	21.2	12.0	20	0.8
105	400	24.8	20.1	11.3	22.5	0.8
105	400	29.4	17.7	9.5	27.5	0.8
105	630	29.9	24.9	14.2	27.5	0.8
125	250	16.6	15.2	7.0	15	0.8
135	100	21.6	14.6	5.4	20	0.8
135	250	21.5	17.4	7.3	20	0.8
155	100	9.3	10.7	7.1	7.5	0.6
155	100	21.3	15.1	5.5	20	0.8
155	250	16.5	10.4	6.9	15	0.8
155	250	22.3	17.6	9.2	20	0.8
155	250	29.1	15.4	7.3	27.5	0.8
155	400	28.4	16.3	7.9	27.5	0.8
155	630	30.4	29.4	18.7	27.5	0.8
185	250	21.5	17.8	9.2	20	0.8
185	400	29.5	12.6	12.6	27.5	0.8
205	100	22.0	14.3	7.4	20	0.8
205	250	21.6	18.1	9.6	20	0.6
205	400	29.3	23.8	13.6	27.5	0.8
225	100	16.6	15.0	7.0	15	0.8
225	100	21.4	15.3	7.6	20	0.8
225	250	22.6	15.6	9.1	20	0.8
225	250	28.6	17.5	8.8	27.5	0.8
225	400	21.6	28.1	17.3	20	0.8
225	400	29.8	23.4	13.2	27.5	0.8
255	100	21.6	15.0	6.5	20	0.8
255	250	28.5	17.0	10.5	27.5	0.8
255	250	30.1	18.1	10.2	27.5	0.6
275	100	21.4	16.7	8.4	20	0.8
275	250	29.35.0	18.3	10.0	27.5	0.8
335	100	16.3	16.0	9.0	15	0.8
335	100	21.9	17.8	9.9	20	0.8
335	100	29.3	15.5	8.2	27.5	0.8
335	250	29.0	21.5	10.6	27.5	0.8

ME SERIES金屬化聚乙脂膜電容器系列

METALLIZED POLYESTER FILM CAPACITOR (MINI-BOX) TYPE:MEB[CL23B]



特點 Features

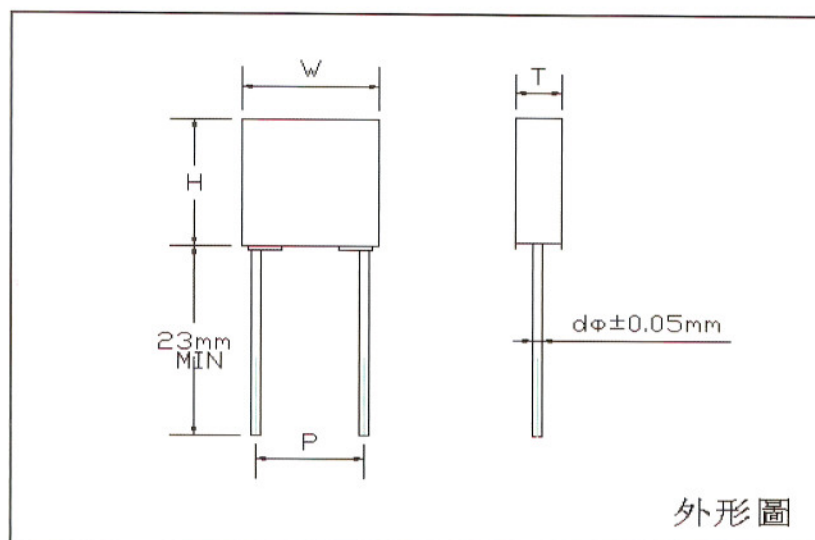
- 尺寸小,節省空間。
- 無感結構。
- 有自愈性。
- 阻燃性高(UL94V-0)。
- 阻止濕度滲入特強。
- Space-saving miniature size.
- Non-inductive construction.
- Self-healing property.
- Flame-retardant plastic case and epoxy resin (compliance with UL94V-0)
- High-moisture resistance.

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 7332 (IEC 60384-2)
氣候類別 (Climatic Category)	55/100/56
容量範圍 (Capacitance Range)	0.001uf~1uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10%
額定溫度 Rated Temperature	+85°C
使用工作溫度範圍 (Use the operating temperature range)	-55°C ~+105°C +85°C ~+105°C:Decreasing factor 1.25% per°C for V _R (DC)
工作電壓 (Operating Voltage)	50~63VDC,100VDC ~ 500 VDC
損耗角正切 (Loss tangent)	≤1% max(at25°C,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥15000M Ω CR>0.33uF, IR≥5000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

ME SERIES金屬化聚乙脂膜電容器系列

外形圖 Outline Drawing



外形尺寸表 Dimension

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
102	63	7.2	7.5	3.5	5	0.5
102	100	7.2	7.5	3.5	5	0.5
102	400	7.2	7.5	3.5	5	0.5
222	63	7.2	7.5	3.5	5	0.5
222	100	7.2	7.5	3.5	5	0.5
222	400	7.2	7.5	3.5	5	0.5
332	400	7.2	7.5	3.5	5	0.5
472	400	7.2	7.5	3.5	5	0.5
562	100	7.2	7.5	3.5	5	0.5
103	100	7.2	7.5	3.5	5	0.5
103	400	7.2	7.5	3.5	5	0.5
103	500	7.2	7.5	3.5	5	0.5
223	100	7.2	7.5	3.5	5	0.5
223	400	7.2	9.5	4.5	5	0.5
473	63	7.2	9.5	4.5	5	0.5
473	250	7.2	9.5	4.5	5	0.5
683	100	7.2	7.5	3.5	5	0.5
104	63	7.2	7.5	3.5	5	0.5
104	100	7.2	7.5	3.5	5	0.5
104	250	7.2	11.0	6.0	5	0.5
124	63	7.2	7.5	3.5	5	0.5
154	63	7.2	10.0	5.0	5	0.5

ME SERIES金屬化聚乙脂膜電容器系列

外形尺寸表 Dimension

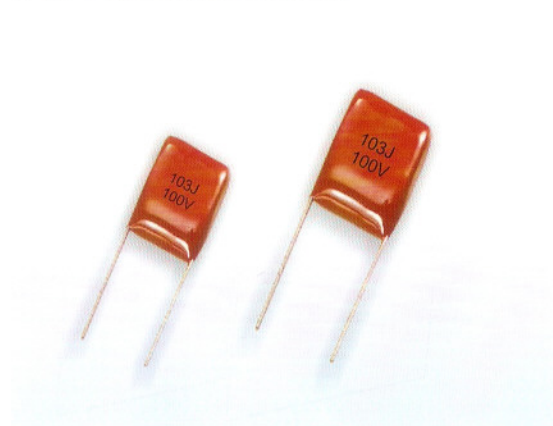
Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
184	63	7.2	10.0	6.0	5	0.5
224	63	7.2	7.5	3.5	5	0.5
224	250	7.2	11.0	6.0	5	0.5
334	63	7.2	10.0	5.0	5	0.5
334	100	7.2	9.5	4.5	5	0.5
394	63	7.2	9.5	4.5	5	0.5
474	63	7.2	9.5	4.5	5	0.5
474	100	7.2	9.5	4.5	5	0.5
564	63	7.2	9.5	4.5	5	0.5
684	63	7.2	11.0	6.0	5	0.5
684	100	7.2	11.0	6.0	5	0.5
824	63	7.2	11.0	6.0	5	0.5
105	63	7.2	11.0	6.0	5	0.5

ME SERIES金屬化聚乙脂膜電容器系列

MINI SIZE METALLIZED POLYESTER FILM CAPACITOR

TYPE:MEM[CL21X]



特點 Features

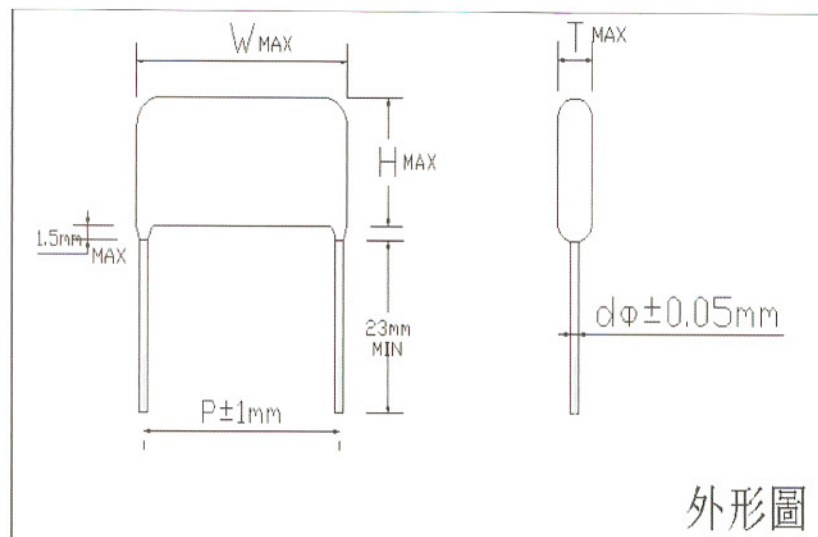
- 體積小，可與疊片式電容相比。
- 良好自愈及可靠性。
- 無感型結構。
- 尺寸小，節省空間。
- Small size can be compared favourably with the stack film capacitor.
- Excellent self-healing and high reliability.
- Non-inductive Construction.
- Space saving miniature size.

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 7332 (IEC 60384-2)
氣候類別 (Climatic Category)	55/100/21
容量範圍 (Capacitance Range)	0.001 uf~1uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10%
額定溫度 Rated Temperature	+85℃
使用工作溫度範圍 (Use the operating temperature range)	-55℃~+105℃ +85℃~+105℃:Decreasing factor 1.25% per℃ for V_R (DC)
工作電壓 (Operating Voltage)	50~63VDC, 100VDC ~ 1000 VDC
損耗角正切 (Loss tangent)	≤1% max(at25℃, 1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥15000MΩ CR>0.33uF, IR≥5000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

ME SERIES金屬化聚乙脂膜電容器系列

外形圖 Outline Drawing



外形尺寸表 (* 可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
102	100	6.5	5.7	3.0	5	0.5
152	250	6.3	6.2	3.4	5	0.5
222	400	6.6	6.3	3.5	5	0.5
222	1000	6.6	6.5	3.5	5	0.5
332	50	6.3	6.3	3.6	5	0.5
332	400	6.4	6.8	3.9	5	0.5
392	63	6.6	7.1	4.5	5	0.5
472	50	6.4	6.7	4.2	5	0.5
472	1000	6.5	7.2	4.3	5	0.5
562	50	6.5	7.3	4.4	5	0.5
682	50	6.2	5.9	3.2	5	0.5
682	400	6.4	6.0	3.7	5	0.5
822	1000	6.5	8.0	5.0	5	0.5
103	100	6.1	6.5	3.2	5	0.5
103	250	6.4	6.6	3.9	5	0.5
113	100	6.9	9.0	6.3	5	0.5
123	50	6.6	6.9	4.2	5	0.5
223	50	6.5	6.5	3.6	5	0.5
223	100	6.5	6.1	3.4	5	0.5
223	400	6.6	8.2	5.4	5	0.5
333	50	6.6	6.9	4.0	5	0.5
333	100	6.5	6.9	4.0	5	0.5

ME SERIES金屬化聚乙脂膜電容器系列

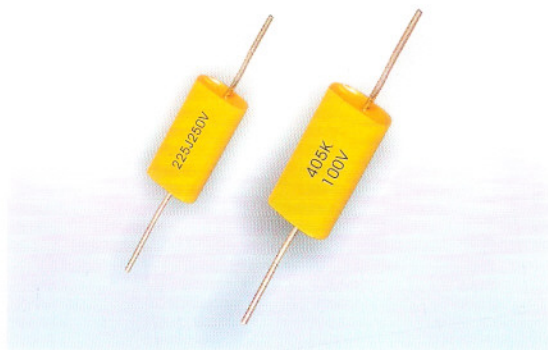
外形尺寸表 (* 可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
473	50	6.9	6.4	3.6	5	0.5
473	100	6.5	6.4	3.5	5	0.5
473	250	6.8	7.8	4.7	5	0.5
563	50	6.4	6.7	4.0	5	0.5
683	50	6.3	6.8	3.7	5	0.5
683	100	6.7	7.0	4.0	5	0.5
683	250	6.8	8.5	5.4	5	0.5
104	50	6.5	7.8	4.7	5	0.5
104	63	6.5	7.8	4.7	5	0.5
104	100	6.6	7.9	4.9	5	0.5
124	63	6.2	6.3	3.6	5	0.5
124	250	7.5	10.6	6.8	5	0.5
154	50	6.6	8.7	5.2	5	0.5
154	63	6.6	8.7	5.2	5	0.5
224	63	6.7	7.6	4.6	5	0.5
224	100	7.1	7.7	4.8	5	0.5
334	50	6.4	7.2	4.2	5	0.5
394	100	6.4	7.6	4.5	5	0.5
474	63	6.5	8.8	5.6	5	0.5
564	63	6.7	8.5	5.5	5	0.5
105	50	7.0	10.5	6.6	5	0.5
105	100	6.8	11.8	7.2	5	0.5

ME SERIES金屬化聚乙脂膜電容器系列

METALLIZED POLYESTER FILM CAPACITOR(TUBULAR & OVAL) TYPE:MET & MEA [CL20]



特點 Features

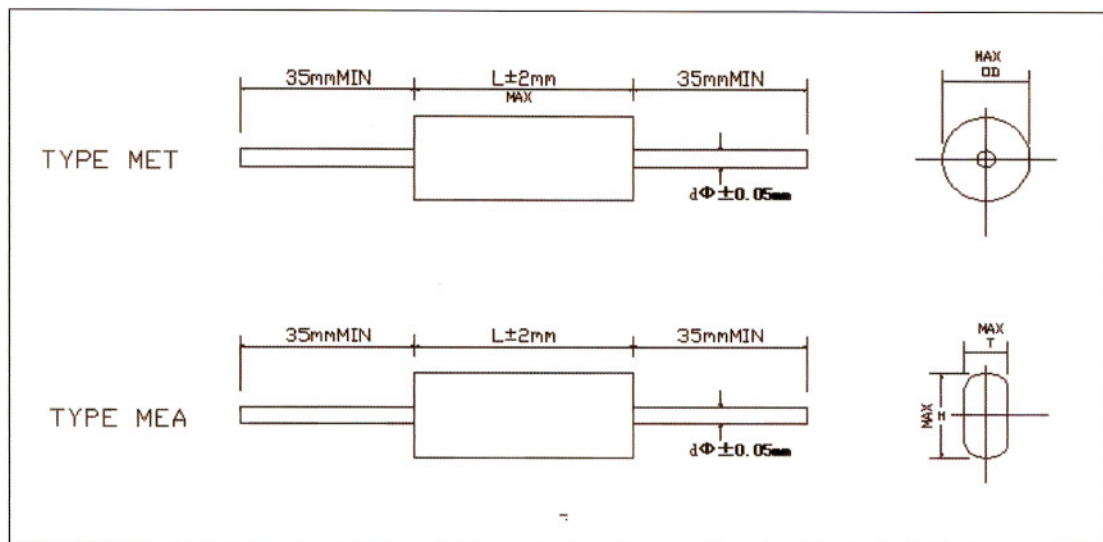
- 無感型結構。
- 有自愈性。
- 高耐濕特性。
- 可獲得高容量且尺寸緊湊。
- Non-inductive construction.
- Self-healing property
- High property moisture resistance
- High capacitance value available and compact size

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 7332 (IEC 60384-2)
氣候類別 (Climatic Category)	40/085/21
容量範圍 (Capacitance Range)	0.001uf~15uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10% M :±20%
額定溫度 Rated Temperature	+85℃
工作電壓 (Operating Voltage)	100VDC,250VDC,400VDC,630VDC
損耗角正切 (Loss tangent)	≤1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥30000MΩ CR>0.33uF, IR≥10000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

ME SERIES金屬化聚乙脂膜電容器系列

外形圖 Outline Drawing



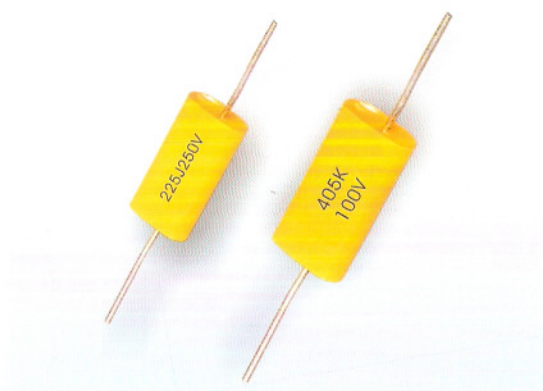
外形尺寸表(*可依客戶設計尺寸制作) Dimension (Customer Design)

UNIT: mm

[illegible]

MP SERIES金屬化聚丙烯膜電容器系列

METALLIZED POLYPROPYLENE FILM CAPACITOR(TUBULAR & OVAL) TYPE:MPT & MPA[CBB20]



特點 Features

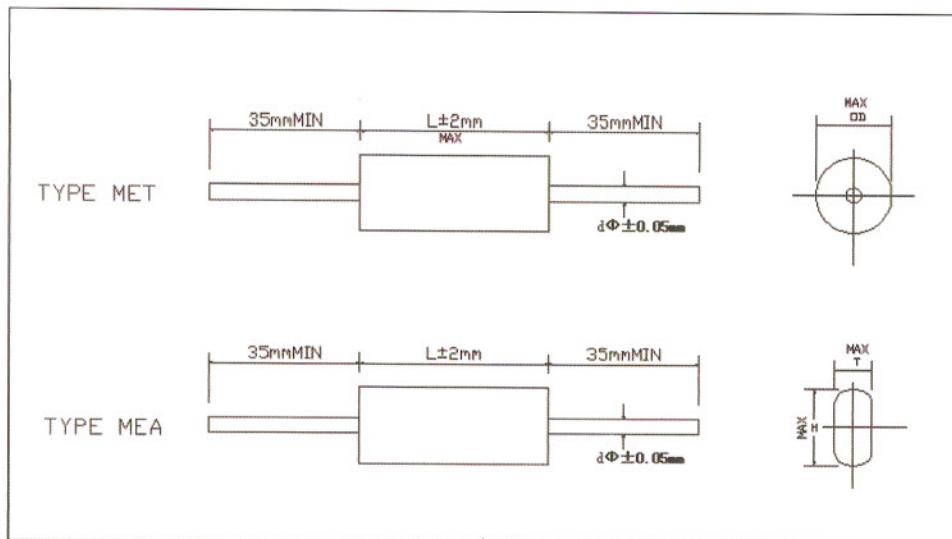
- 低損失角正切和高頻率效果極佳，體積小，重量輕。
- 可靠性高及穩定性極佳。
- 不易燃樹脂制成。
- Low dissipation factor and excellent for high frequency application, miniature size and light weight.
- High reliability and excellent long term stability.
- Flame retardant epoxy resin coating.

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 10190 (IEC 60384-16)
氣候類別 (Climatic Category)	40/85/21
容量範圍 (Capacitance Range)	0.001uf~4.7uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10% M :±20%
額定溫度 Rated Temperature	+85℃
工作電壓 (Operating Voltage)	250VDC,400VDC,630VDC
損耗角正切 (Loss tangent)	≤0. 1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥50000MΩ CR>0.33uF, IR≥15000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

MP SERIES金屬化聚丙烯膜電容器系列

外形圖 Outline Drawing



外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

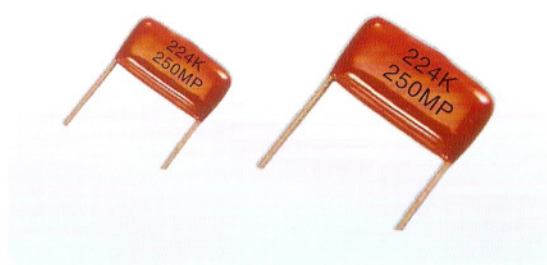
UNIT: mm

TYPE SIZE CAP	MPT						MPA								
	250VDC		400VDC		630VDC		250VDC			400VDC			630VDC		
	OD	L	OD	L	OD	L	W	H	T				W	H	T
0.01	5.0	15.0	5.5	15.0	6.5	15.0									
0.015	5.0	15.0	6.0	15.0	7.0	15.0									
0.022	6.0	15.0	7.0	15.0	8.0	15.0									
0.033	6.0	15.0	7.5	15.0	8.0	21.0									
0.047	6.5	15.0	8.0	21.0	9.0	21.0									
0.068	7.5	15.0	8.0	21.0	10.5	21.0									
0.1	8.0	15.0	8.5	21.0	11.0	27.0	15.0	10.0	6.0	21.0	12.0	7.0	27.0	13.0	8.0
0.15	8.0	21.0	10.0	21.0	12.0	27.0	21.0	11.0	6.0	21.0	13.0	7.0	27.0	15.0	9.00
0.22	9.0	21.0	9.5	27.0	14.0	33.0	21.0	11.0	7.0	27.0	15.0	8.0	33.0	19.0	10.0
0.33	10.5	21.0	12.0	27.0	16.0	33.0	21.0	13.0	8.0	27.0	19.0	10.0	33.0	20.0	12.0
0.47	10.5	27.0	13.0	33.0	18.0	33.0	27.0	14.0	8.0	33.0	20.0	12.0	33.0	22.0	14.0
0.68	12.5	27.0	15.0	33.0	20.0	37.0	27.0	16.0	10.0	33.0	22.0	13.0	37.0	24.0	15.0
1.0	14.0	33.0	18.0	34.0	22.0	37.0	33.0	18.0	11.0	33.0	24.0	13.5	37.0	25.0	16.0
1.5	16.0	33.0	20.0	37.0			33.0	20.0	12.5	37.0	25.0	16.0	42.0	29.0	20.0
2.2	18.0	33.0	22.0	37.0			33.0	22.0	14.0	42.0	29.0	16.0	47.0	34.0	24.0
3.3	20.0	37.0	24.0	42.0			37.0	24.0	15.0	47.0	34.0	23.0			
4.7	22.0	37.0	26.0	47.0			37.0	27.0	17.0						

MP SERIES金屬化聚丙烯膜電容器系列

METALLIZED POLYPROPYLENE FILM CAPACITOR

TYPE:MPP[CBB21]



特點 Features

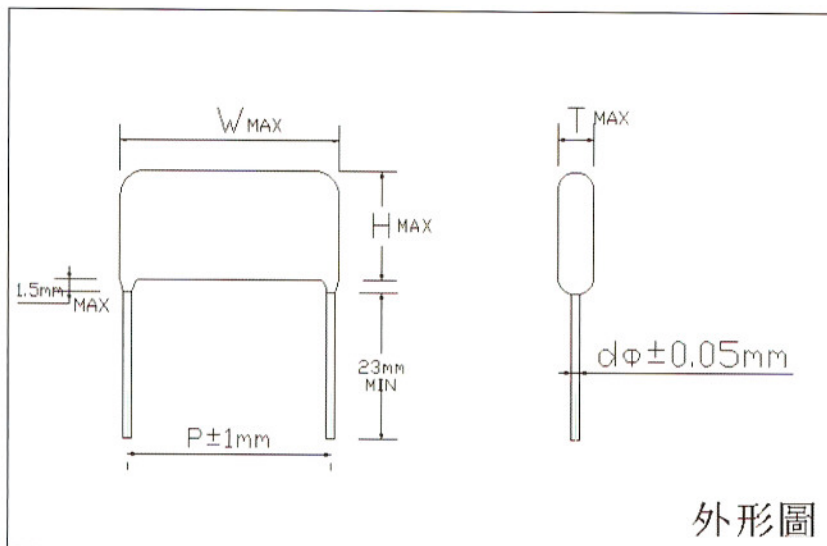
- 阻止濕度滲入特強。
- 無感型，有自愈型。
- 低耗損，高絕緣。
- 容量、耗損隨溫度頻率具高穩定性。
- 極低內部溫升。
- High moisture resistance.
- Non-inductive and self-healing property.
- Low DF and high IR.
- High stability of capacitance and DF versus temperature and frequency.
- Very small inherent temperature rise.

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 14579 (IEC 60384-17)
氣候類別 (Climatic Category)	40/100/21
容量範圍 (Capacitance Range)	0.001uf~15uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10% M :±20%
額定溫度 Rated Temperature	+85℃
使用工作溫度範圍 (Use the operating temperature range)	-40℃ ~+105℃ +85℃ ~+105℃:Decreasing factor 1.25% per℃ for V _R (DC)
工作電壓 (Operating Voltage)	100VDC,250VDC,400VDC,630VDC,1000VDC
損耗角正切 (Loss tangent)	≤0.1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥30000MΩ CR>0.33uF, IR≥10000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

MP SERIES金屬化聚丙烯膜電容器系列

外形圖 Outline Drawing



外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
102	400	11.9	6.5	3.7	10	0.6
102	630	9.8	9.0	5.7	7.5	0.6
102	630	11.3	6.6	4.0	10	0.6
332	630	8.5	6.7	3.9	7.5	0.6
332	1000	8.5	6.7	3.9	7.5	0.6
392	250	11.0	6.5	3.5	10	0.6
392	630	11.5	7.2	4.2	10	0.6
472	250	11.0	6.8	3.8	10	0.6
562	250	11.0	7.2	3.9	10	0.6
562	630	8.9	7.7	4.7	7.5	0.6
562	1000	8.9	7.7	4.7	7.5	0.6
682	100	11.2	8.0	4.5	10	0.6
682	250	11.4	8.2	4.6	10	0.6
103	400	11.6	8.9	5.2	10	0.6
103	630	9.3	10.0	6.2	7.5	0.6
103	630	11.9	8.9	5.4	10	0.6
123	400	11.4	8.9	5.3	10	0.6
153	630	11.7	9.8	6.4	10	0.6
203	630	11.3	10.3	5.8	10	0.6
223	100	11.2	7.8	4.3	10	0.6
223	250	11.5	7.8	4.6	10	0.6
223	400	11.5	7.8	5.0	10	0.6

MP SERIES金屬化聚丙烯膜電容器系列

外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
223	630	11.5	10.2	6.7	10	0.6
333	100	11.0	8.0	4.4	10	0.6
333	400	11.3	9.8	4.8	10	0.6
333	630	12.2	12.3	7.9	10	0.6
393	400	11.4	8.3	4.7	10	0.6
393	630	16.4	10.0	6.1	15	0.8
473	250	11.0	7.1	3.6	10	0.6
473	400	12.2	9.7	6.0	10	0.6
473	400	16.3	7.8	4.8	15	0.8
473	630	12.0	13.9	9.3	10	0.6
473	1000	16.5	11.6	7.2	15	0.8
683	100	11.6	7.9	5.2	10	0.6
683	630	11.4	9.4	5.8	10	0.6
104	100	11.3	8.7	4.9	10	0.6
104	250	11.1	8.5	4.9	10	0.6
104	250	16.3	8.1	4.4	15	0.8
104	400	11.5	10.9	6.7	10	0.6
104	400	16.7	11.3	6.5	15	0.8
104	630	16.9	14.5	9.3	15	0.8
104	1000	16.7	15.2	9.8	15	0.8
124	400	16.5	11.0	6.4	15	0.8
154	250	16.5	8.9	5.3	15	0.8
154	400	16.5	12.6	7.3	15	0.8
154	630	16.5	18.8	10.7	15	0.8
224	250	16.4	10.1	5.9	15	0.8
224	400	16.7	17.7	7.9	15	0.8
224	400	24.4	13.2	7.7	22.5	0.8
224	630	16.8	20.9	12.5	15	0.8
274	630	16.9	18.3	8.9	15	0.8
334	100	16.7	11.4	7.1	15	0.8
334	250	16.7	11.7	7.3	15	0.8
334	630	17.2	18.3	10.2	15	0.8
334	630	23.4	14.4	8.0	22.5	0.8
394	250	16.3	12.3	7.5	15	0.8
394	400	23.5	14.8	6.0	22.5	0.8
474	100	16.4	11.0	6.2	15	0.8
474	250	16.5	13.1	8.4	15	0.8
474	400	16.8	18.1	12.1	15	0.8
474	630	22.0	18.2	10.7	20	0.8
474	630	28.7	16.1	7.6	27.5	0.8

MP SERIES金屬化聚丙烯膜電容器系列

外形尺寸表 (* 可依客戶設計尺寸制作) Dimension (Customer Design)

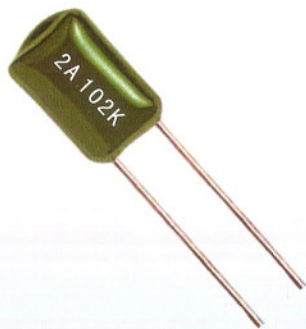
Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
474	1000	23.6	17.4	9.2	22.5	0.8
564	630	23.2	16.3	8.4	22.5	0.8
684	400	16.2	17.6	10.9	15	0.8
684	400	21.8	14.1	7.6	20	0.8
684	630	21.8	15.1	9.9	20	0.8
684	630	23.8	19.3	9.3	22.5	0.8
824	630	29.5	18.2	9.5	27.5	0.8
105	250	22.0	16.6	8.4	20	0.8
105	250	28.8	13.3	7.1	27.5	0.8
105	400	28.7	17.9	9.7	27.5	0.8
105	630	21.5	22.3	13.7	20	0.8
105	630	24.1	17.4	11.1	22.5	0.8
125	250	21.3	17.3	8.9	20	0.8
125	250	32.4	14.9	6.1	31	0.8
155	250	21.2	18.3	10.2	20	0.8
155	250	32.7	16.6	7.6	31	0.8
155	400	21.8	27.3	16.8	20	0.8
155	400	29.5	21.2	12.7	27.5	0.8
225	250	22.4	20.6	13.6	20	0.8
225	250	29.3	18.6	10.5	27.5	0.8
225	630	29.1	21.7	13.4	27.5	0.8
405	400	33.8	27.3	16.1	31	0.8

ME SERIES金屬化聚乙脂膜電容器系列

POLYESTER FILM INDUCTIVE CAPACITOR

TYPE:PEI [CL11]



特點 Features

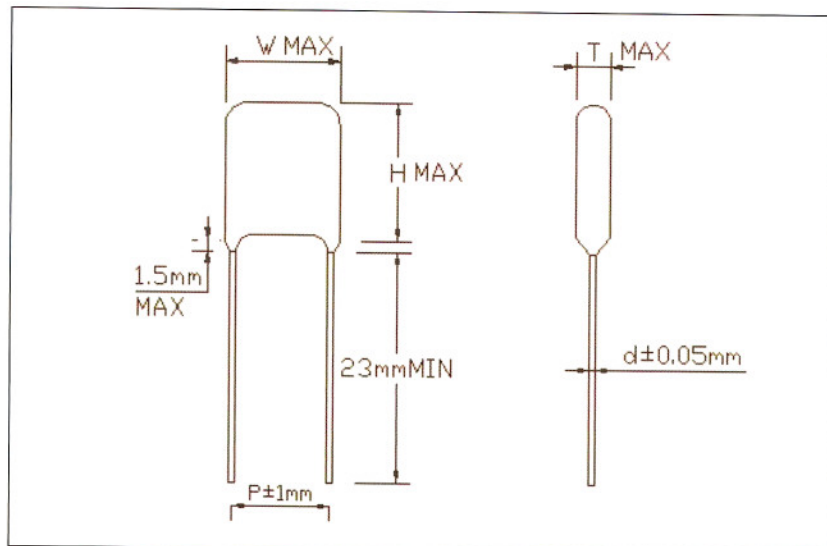
- 體積小,重量輕,價格低
- 引線直接點焊于電極,損耗小
- 環氧料真空包裝,提高產品的機械強度、耐濕性
- 廣泛應用於電視機、收錄機及各種電子儀器的直流、脈動電路中
- Small size,light weight and cost
- Dissipation factor is small because the leads are directly welded to electrode
- Epoxy resin vacuum dipped enhances the mechanical strength,humidity resistance
- Widely used DC and pulsating circuits of radio,TV sets and various electronic equipments

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 6346 (IEC 60384-11)
氣候類別 (Climatic Category)	55/100/21
容量範圍 (Capacitance Range)	0.001uf~0.47uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10% M :±20%
額定溫度 Rated Temperature	+85℃
使用工作溫度範圍 (Use the operating temperature range)	-40℃ ~+105℃ +85℃ ~+105℃:Decreasing factor 1.25% per℃ for V _R (DC)
工作電壓 (Operating Voltage)	50VDC,100VDC,250VDC,400VDC,630VDC,1000VDC
損耗角正切 (Loss tangent)	≤1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	≥30000MΩ
耐電壓 (Voltage proof)	WVD×150%, 60 sec

ME SERIES金屬化聚乙脂膜電容器系列

外形圖 Outline Drawing



外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
102	100	5.2	9.7	2.8	4	0.5
122	100	5.4	9.7	4.2	4	0.5
152	100	5.8	9.8	3.4	4	0.5
152	630	5.8	11.7	3.2	4	0.5
182	100	5.8	9.7	3.6	4	0.5
222	100	5.6	9.5	2.9	4	0.5
222	630	6.1	12	3.5	4	0.5
222	1000	7.4	15.2	4.6	5	0.5
222	2000	9.9	17	4.9	7.5	0.5
272	100	4.9	9.6	2.8	4	0.5
272	1200	6.6	14	3.6	4	0.5
332	100	5.7	9	2.6	4	0.5
332	250	5.2	9.3	2.7	4	0.5
332	400	5.3	9.4	3	4	0.5
332	630	6	11.8	3	4	0.5
332	1000	7.1	14	3.5	5	0.5
332	1200	8.2	15.5	5.6	5	0.5
332	2000	10.4	17.5	5.7	7.5	0.5
392	100	5.3	9.4	2.8	4	0.5
472	100	5.4	9.1	2.8	4	0.5
472	400	6.6	11.7	3.6	5	0.5
472	500	6.7	11.8	3.7	5	0.5

ME SERIES金屬化聚乙脂膜電容器系列

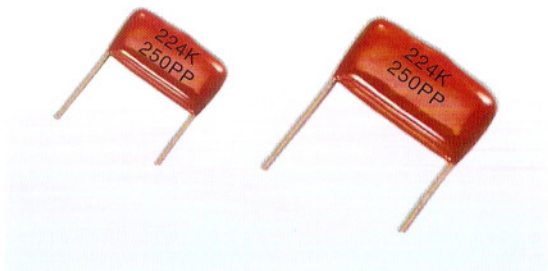
外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
472	630	7.5	12.3	4.5	5	0.5
562	100	6.1	9.5	3.2	5	0.5
682	100	6.3	9.7	3.7	4	0.5
682	1000	7.6	15.1	4.7	5	0.5
682	1200	8.8	14.5	4.6	5	0.5
822	100	6.3	10.0	3.7	4	0.5
822	630	7.5	12.2	4.3	5	0.5
103	100	6.0	9.8	3.6	4	0.5
103	400	7.0	12.0	4.0	5	0.5
103	630	7.1	12.0	4.3	5	0.5
103	1000	11.6	18.3	6.4	9	0.5
123	100	5.5	9.1	2.9	4	0.5
123	400	8.0	12.5	4.5	5	0.5
153	100	6.4	9.5	3.4	5	0.5
153	630	9.8	14.4	4.8	7	0.5
183	100	6.5	10.0	3.6	4	0.5
203	100	6.9	10.1	4.3	4	0.5
203	400	8.9	11.3	6.0	6	0.5
223	100	7.0	10.2	4.4	5	0.5
273	100	7.3	10.0	4.5	5	0.5
273	400	8.3	12.1	4.6	5	0.5
333	100	7.8	12.1	3.7	6	0.5
333	400	9.5	12.8	5.7	7	0.5
333	630	11.7	15.0	6.6	7.5	0.5
393	100	7.5	8.9	3.3	6	0.5
393	400	8.6	12.2	4.8	7	0.5
473	100	7.9	12.3	4.4	6	0.5
563	100	8.0	11.8	4.2	6	0.5
563	400	12.0	16.0	7.0	6	0.5
683	100	8.7	12.4	5.2	8	0.5
823	100	9.2	12.5	5.5	7	0.5
104	100	9.0	12.5	4.8	7	0.5
104	400	12.1	15.7	7.7	10	0.5
124	100	10.0	11.5	6.5	6	0.5
154	100	10.2	12.9	6.1	7	0.5
184	100	10.3	12.7	5.6	7	0.5
224	100	11.0	13.4	7.5	7	0.5
334	100	12.4	15.3	7.4	8	0.5
394	100	12.7	16.6	9.0	8	0.5
474	100	16.2	17.8	8.6	10	0.5

MP SERIES金屬化聚丙烯膜電容器系列

POLYPROPYLENE FILM(NON-INDUCTIVE) CAPACITOR TYPE:PPN[CBB13]



特點 Features

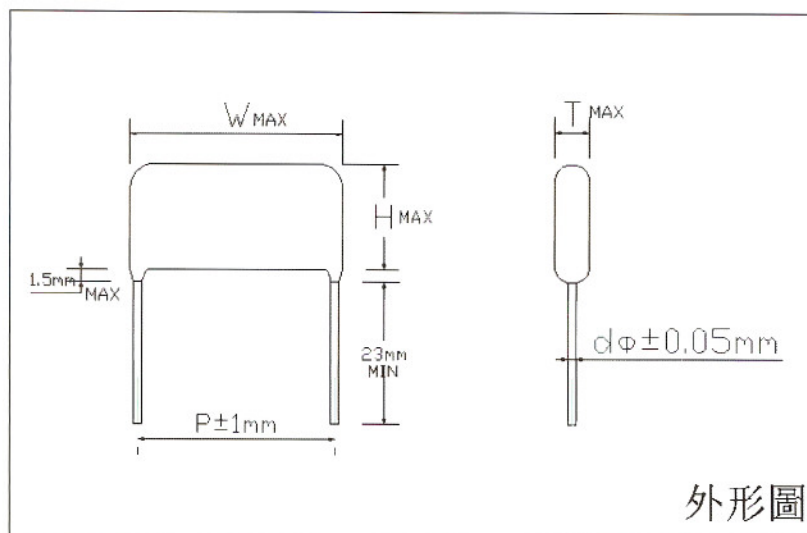
- 容量損耗隨溫度頻率具高穩定性。
- 低損耗，高絕緣。
- 無感型結構。
- 高電流爬升速率並適用於大電流回路。
- High stability of capacitance and DF versus temperature and frequency.
- Low DF and high IR.
- Non-inductive construction.
- High pulse rise rate(du/dt)and suitable for large current circuit.

技術參數 Specifications

引用標準 (Reference Standard)	GB/T 10188 (IEC 60384-13)
氣候類別 (Climatic Category)	40/100/21
容量範圍 (Capacitance Range)	0.001uf~0.47uf
標準容量允許偏差 (Standard deviation of capacity to allow)	J:±5% K: ±10% M :±20%
額定溫度 Rated Temperature	+85℃
使用工作溫度範圍 (Use the operating temperature range)	-40℃ ~+105℃ +85℃ ~+105℃:Decreasing factor 1.25% per℃ for V _R (DC)
工作電壓 (Operating Voltage)	100VDC,250VDC,400VDC,630VDC,1000VDC
損耗角正切 (Loss tangent)	≤0. 1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥30000MΩ CR>0.33uF, IR≥5000S
耐電壓 (Voltage proof)	WVD×150%, 60 sec

MP SERIES金屬化聚丙烯膜電容器系列

外形圖 Outline Drawing



外形尺寸表 (*可依客戶設計尺寸制作) Dimension (Customer Design)

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (φ)
331	1250	11.7	9.1	4.9	10	0.6
561	1200	9.6	7.6	4.1	7.5	0.6
681	1000	9.3	8.6	4.8	7.5	0.6
751	630	9.7	8.1	4.6	7.5	0.6
102	250	11.3	6.6	4.0	10	0.6
102	630	12.0	6.9	4.0	10	0.6
102	1000	9.7	9.0	5.2	7.5	0.6
102	1000	13.0	8.0	5.0	10	0.6
102	1600	17.7	8.7	5.2	15	0.8
122	250	12.4	7.4	4.4	10	0.6
122	1600	17.9	9.6	5.5	15	0.8
152	630	9.7	9.9	6.5	7.5	0.6
152	1000	11.8	7.0	4.5	10	0.6
222	250	12.0	7.5	4.1	10	0.6
222	630	12.1	7.9	4.6	10	0.6
222	1000	9.8	7.6	4.9	7.5	0.6
222	1000	12.0	8.3	4.9	10	0.6
222	1000	17.9	9.3	5.4	15	0.8
332	250	11.5	9.3	5.9	10	0.6
332	630	11.9	9.5	5.5	10	0.6
332	1000	9.6	11.8	7.5	7.5	0.6
332	1000	11.7	10.4	6.7	10	0.6

MP SERIES金屬化聚丙烯膜電容器系列

外形尺寸表 (* 可依客戶設計尺寸制作) Dimension (Customer Design)

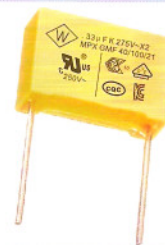
Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
332	1000	18.0	10.0	6.3	15	0.8
472	630	11.8	9.1	5.5	10	0.6
472	1250	12.5	10.0	6.0	10	0.6
682	1000	11.3	11.2	6.3	10	0.6
682	1000	18.2	12.7	7.8	15	0.8
682	1250	12.0	11.5	6.6	10	0.8
822	100	12.1	7.9	4.9	10	0.6
822	1000	13.0	13.7	9.5	10	0.6
822	1000	18.3	13.6	8.2	15	0.8
822	1200	13.4	15.8	9.5	10	0.6
912	1600	17.8	13.2	8.0	15	0.8
103	100	12.6	8.3	4.7	10	0.6
103	630	12.8	10.0	5.7	10	0.6
103	1000	12.9	14.3	9.3	10	0.6
103	1200	12.8	16.3	10.0	10	0.6
123	100	11.4	7.9	4.9	10	0.6
153	100	11.4	8.4	5.5	10	0.6
153	1000	16.4	11.9	6.9	15	0.8
203	250	12.3	9.3	5.7	10	0.6
223	250	13.0	10.1	6.2	20	0.6
223	400	17.3	10.4	6.3	15	0.8
223	630	17.0	14.1	7.5	15	0.8
273	800	22.1	13.5	7.2	20	0.8
273	1000	17.6	13.7	8.2	15	0.8
303	1200	17.0	15.3	10.0	15	0.8
333	1000	23.2	18.1	11.3	20	0.8
473	250	22.8	9.8	5.4	20	0.8
473	400	17.8	11.5	6.8	15	0.8
104	1200	30.6	24.0	16.1	27.5	0.8
304	400	30.1	22.5	12.9	27.5	0.8

X SERIES 跨接抑制突波電容器

RADIO INTERFERENCE SUPPRESSION X2 CAPACITORS

RADIO INTERFERENCE SUPPRESSION X2 CAPACITOR TYPE:X2



特點 Features

- 體積小
- 寬溫度、頻率範圍內容量DF具高穩定性。
- 高電流承受極高絕緣強度。
- 長時間工作穩定性。
- 防火等級:UL94V-0。
- 有自愈性。
- 廣泛使用於電源跨接電路,旁路,天線耦合等抗干擾場合。
- 能承受過壓衝擊。
- Miniture size
- High stability of capacitance and DF versus wide temperature and frequency range.
- High transient endurance and high dielectric strength.
- Real long-term stability.
- Fire-retardant performance reaches UL94V-0
- Self-healing property
- Widely used in across-line, line-by-pass, antenna coupling interference suppression circuit
- Withstanding overvoltage stressing

國際質量認證 Approval standard

RELATED STANDARD		CERTIFICATE NO	APPROVED MONOGRAM	
UL CSA	UL1414	E302125		USA Canada
VDE	IEC60384-14	40018071		Germany
ENEC	ENB0384-14:2006-04 IEC60384-14(ED.3)	40030283		Europe
CQC	GB/T14472-1998	CQC05001012269		China
KTL	K60384-14	SU03034-7001 SU03034-7002 SU03034-7003 SU03034-7004		Korea

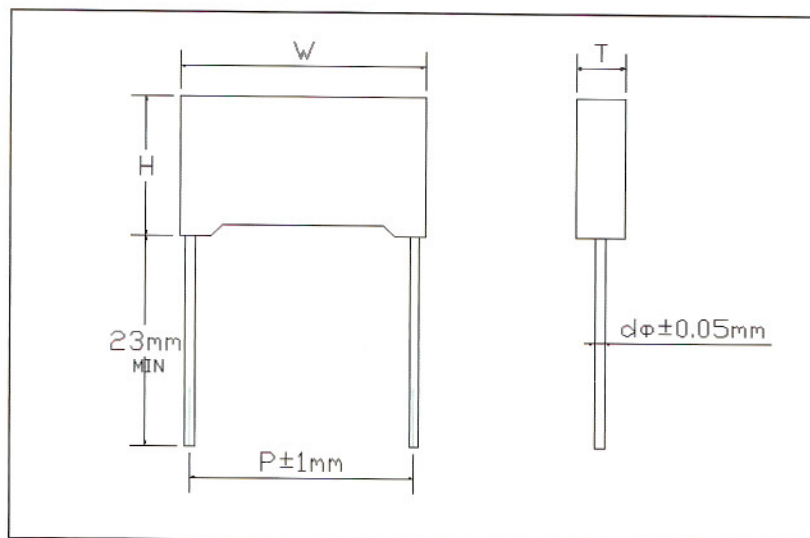
技術參數 Specifications

引用標準 (Reference Standard)	GB/T 14472-1998 (IEC 60384-14)
氣候類別/阻燃等級 (Climatic Category/ Passive Flammability Class)	40/100/56/C
容量範圍 (Capacitance Range)	0.047uf~2.2uf
標準容量允許偏差 (Standard deviation of capacity to allow)	K: ±10%
使用工作溫度範圍 (Use the operating temperature range)	-40℃ ~+100℃
工作電壓 (Operating Voltage)	250/275VAC
損耗角正切 (Loss tangent)	≤0.1% max(at25℃,1KHz)
絕緣電阻 (Insulation resistance)	CR≤0.33uF, IR≥15000MΩ CR>0.33uF, IR≥5000S
耐電壓 (Voltage proof)	2000VDC /1 sec

X SERIES 跨接抑制突波電容器

RADIO INTERFERENCE SUPPRESSION X2 CAPACITORS

外形圖 Outline Drawing



外形尺寸表 Dimension

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
102	275	12.0	11.0	5.0	10	0.6
222	275	12.0	11.0	5.0	10	0.6
472	275	12.0	11.0	5.0	10	0.6
562	275	12.0	11.0	5.0	10	0.6
682	275	12.0	11.0	5.0	10	0.6
822	275	12.0	11.0	5.0	10	0.6
103	275	12.0	11.0	5.0	10	0.6
103	275	18.0	11.0	5.0	15	0.6
153	275	12.0	11.0	5.0	10	0.6
153	275	18.0	11.0	5.0	15	0.6
223	275	12.0	11.0	5.0	10	0.6
223	275	18.0	11.0	5.0	15	0.6
333	275	12.0	11.0	5.0	10	0.6
333	275	18.0	11.0	5.0	15	0.6
473	275	12.0	11.0	5.0	10	0.6
473	275	18.0	11.0	5.0	15	0.6
563	275	18.0	11.0	5.0	15	0.6
683	275	18.0	11.0	5.0	15	0.6
823	275	18.0	12.0	6.0	15	0.8
104	275	13.0	12.0	6.0	10	0.6
104	275	18.0	12.0	6.0	15	0.8
154	275	13.0	14.0	8.0	10	0.6

X SERIES 跨接抑制突波電容器

RADIO INTERFERENCE SUPPRESSION X2 CAPACITORS

外形尺寸表 Dimension

Unit : mm

CAP	R.V.	SIZE				
		W	H	T	P	D (Φ)
154	275	18.0	13.5	7.5	15	0.8
154	275	18.0	14.5	8.5	15	0.8
224	275	18.0	13.0	6.5	15	0.8
224	275	18.0	14.5	8.5	15	0.8
224	275	26.5	16.5	7.0	22.5	0.8
334	275	18.0	13.5	7.5	15	0.8
334	275	18.0	14.5	8.5	15	0.8
334	275	18.0	15.5	9.5	15	0.8
334	275	26.5	17.0	8.5	22.5	0.8
394	275	26.5	17.0	8.5	22.5	0.8
394	275	32.0	19.5	11.0	27.5	0.8
474	275	18.0	19.0	11.0	15	0.8
474	275	26.5	19.0	10.0	22.5	0.8
564	275	18.0	19.0	11.0	15	0.8
564	275	26.5	19.0	10.0	22.5	0.8
684	275	18.0	19.0	11.0	15	0.8
684	275	18.0	20.0	12.0	15	0.8
684	275	26.5	19.0	10.0	22.5	0.8
684	275	26.5	21.5	12.0	22.5	0.8
684	275	32.0	20.0	11.0	27.5	0.8
824	275	26.5	19.0	10.0	22.5	0.8
105	275	26.5	19.0	10.0	22.5	0.8
105	275	26.5	21.5	12.0	22.5	0.8
105	275	32.0	20.0	11.0	27.5	0.8
105	275	32.0	22.0	13.0	27.5	0.8
125	275	32.0	22.0	12.0	27.5	0.8
155	275	32.0	22.0	12.0	27.5	0.8
225	275	32.0	28.0	18.0	27.5	0.8