

CMPE Series

Metallized Polyester Film Capacitors (Radial Dipped)

TRIGON
COMPONENTS



FEATURES

- Self healing characteristics.
- Miniature size, light in weight.
- High stability of temperature vs. Cap. and $\tan \delta$.
- High density thermosetting epoxy resin enhances mechanical strength and humidity resistance.
- Excellent result obtained from use in coupling, by pass, R.F. filtering and solid state application, where dimension is critical.
- RoHS Compliant.

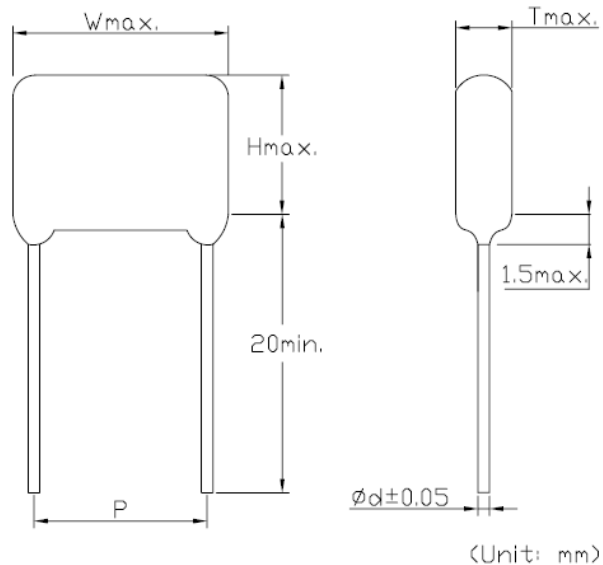
ORDERING CODE

CMPE 223 J 500 L 075 T
(1) (2) (3) (4) (5) (6) (7)

- (1) Metallized Polyester Film Capacitor (Radial Dipped)
- (2) Capacitance Code
- (3) Tolerance Code
- (4) Rated Voltage Code
- (5) Style
- (6) Lead to Lead Distance
- (7) Package

※Please refer to complete Ordering Code document (CPMx-Ord) for more ordering options.

Configuration



Specification:

Item	Performance Characteristics
Operating Temperature	-40°C ~ +85°C
Capacitance Range	0.01 μ F ~ 10 μ F
Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)
Rated Voltage	100VDC, 250VDC, 400VDC, 630VDC
Insulation Resistance	C $\leq 0.33 \mu$ F, R $\geq 30,000 \text{ M}\Omega$ C > 0.33 μ F, RC $\geq 10,000 \text{ M}\Omega \cdot \mu$ F
Dissipation Factor	1.0% MAX. at 1KHz

Maximum Pulse Rise Time(V/ μ sec.):
Shown As Following Table.

RV	100	250	400	630
dv/dt	10	10	20	25

V.DC	250VDC	400VDC	630VDC
V.AC(50/60HZ)	125VAC	200VAC	250VAC

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Capacitance		100VDC					250VDC					400VDC					630VDC				
Symbol	μF	W	H	T	P	d ϕ	W	H	T	P	d ϕ	W	H	T	P	d	W	H	T	P	d ϕ
103	0.01	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6
153	0.015	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6
223	0.022	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	11.0	7.0	10.0	0.6
333	0.033	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	9.5	6.5	10.0	0.6	17.5	9.5	6.0	15.0	0.6
473	0.047	12.5	8.5	6.0	10.0	0.6	12.5	8.5	6.0	10.0	0.6	12.5	10.5	6.5	10.0	0.6	17.5	11.5	7.0	15.0	0.6
683	0.068	12.5	9.5	6.0	10.0	0.6	12.5	9.5	6.0	10.0	0.6	12.5	11.5	7.0	10.0	0.6	17.5	12.5	7.5	15.0	0.6
104	0.1	12.5	9.5	6.0	10.0	0.6	12.5	9.5	6.0	10.0	0.6	17.5	11.0	6.5	15.0	0.6	17.5	14.5	8.5	15.0	0.6
154	0.15	12.5	10.5	7.0	10.0	0.6	12.5	10.5	7.0	10.0	0.6	17.5	12.0	7.5	15.0	0.6	17.5	15.5	10.0	15.0	0.8
224	0.22	12.5	10.5	7.0	10.0	0.6	17.5	10.5	6.0	15.0	0.6	17.5	14.5	8.0	15.0	0.8	23.0	16.5	10.2	20.0	0.8
334	0.33	12.5	12.0	7.0	10.0	0.6	17.5	12.0	7.0	15.0	0.6	23.0	15.0	8.0	20.0	0.8	23.0	17.0	11.0	20.0	0.8
474	0.47	12.5	12.5	7.5	10.0	0.6	17.5	13.0	7.5	15.0	0.8	23.0	16.5	10.0	20.0	0.8	30.0	20.0	11.0	27.5	0.8
684	0.68	17.5	12.5	7.0	15.0	0.6	23.0	13.0	7.5	20.0	0.8	30.0	17.0	10.0	27.5	0.8	30.0	21.5	12.0	27.5	0.8
105	1.0	17.5	14.5	8.5	15.0	0.8	23.0	15.0	9.0	20.0	0.8	30.0	20.5	11.0	27.5	0.8	30.0	26.5	17.0	27.5	0.8
155	1.5	17.5	16.0	8.5	15.0	0.8	23.0	18.5	11.0	20.0	0.8	30.0	22.0	12.0	27.5	0.8	34.0	26.0	20.0	31.5	0.8
225	2.2	23.0	18.0	8.5	20.0	0.8	30.0	20.0	11.0	27.5	0.8	34.0	24.0	16.0	31.5	0.8					
335	3.3	23.0	20.0	11.0	20.0	0.8	30.0	21.0	13.0	27.5	0.8	34.0	26.0	18.0	31.5	0.8					
475	4.7	30.0	20.0	11.0	27.5	0.8	34.0	22.0	13.0	31.5	0.8										
685	6.8	30.0	23.0	13.0	27.5	0.8	34.0	25.0	15.0	31.5	0.8						P	10.0	15.0	20.0	27.5
106	10.0	30.0	24.0	16.0	27.5	0.8	34.0	28.0	18.0	31.5	0.8						TOL	± 1.0	± 1.0	± 1.0	± 1.5

※Please contact us for special item or size not listed.

Capacitor

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ELECTRICAL CHARACTERISTIC:

No	Test items	Performance	Test Method
1	Withstand Voltage (Between Terminals)	Shall Be No Abnormality	150% Of Rated Voltage, 60sec. or 175% Of Rated Voltage, 1~5sec.
	Between Terminal And Enclosure	Shall Be No Abnormality	UR×200%+1000VDC, 60sec.
2	Insulation Resistance (Between Terminals)	CR ≤ 0.33uF IR ≥ 30,000MΩ CR > 0.33uF IR ≥ 10,000 (MΩ . uF)	Measured at 100±15VDC, For 60sec / 25°C
3	Capacitance	Within the tolerance specified	1KHz, 1Vrms Max. at 25°C
4	Dissipation Factor	0.01 (1%) Max.	1KHz, 1Vrms Max. at 25°C
5	Tense Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force: 1.0 Kg 2. Holding Time: 10 ± 1sec
6	Bending Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force: 0.5 Kg 2. Bending Time: 4 x 90° in 5sec
7	Vibration	(1) Appearance: No Visible Damage (2) Contact: Normal	a. Frequency change: 1min. Per Cycle 10~55~10Hz b. Vibration Distance: 1.5mm c. Course: X, Y, Z (Axis) d. Time: 2h / Axis (6h In Total)
8	Solderability	75% Of The Surface Tinning	a. Solder Temperature: 230±5°C b. Solder Time: 2±0.5sec
9	Heat Shock Test	(1) Appearance: No Visible Damage (2) Withstand Voltage: Normal (3) Capacitance Change: ≤ ±3% of The Initial Value	The Terminal of Capacitor Shall Be Immersed In The Melting Solder. a. Solder Temperature: 270±5°C b. Solder Time: 3±0.5sec c. Test Voltage: 150% of The Rate Voltage For 1min.

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10	Cold Resistance	(1) Appearance: No Visible Damage (2) Capacitance Change: $\leq 0 \sim -10\%$ Of The Initial Value	a. Test Temperature: -40°C (IEC 68-2-21) b. Test Times: 2Hrs
11	Dry Heat Resistance	(1) Appearance: No Visible Damage (2) Withstand Voltage: Normal (3) Capacitance Change: $\leq +5 \sim -2\%$ Of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. Test Temperature: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ b. Test Times: 2 Hrs.
12	Humidity Resistance	(1) Appearance: No Visible Damage (2) Withstand Voltage: Normal (3) Capacitance Change: $\leq \pm 10\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value (5) DF ($\tan\delta$) ≤ 0.005	a. Test Temperature: $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ b. Relative Humidity: 90 ~ 95% c. Test Times: 240 \pm 8 Hrs d. Test Voltage: 130% of The Rated Voltage for 1 minute.
13	Heat Resistance (Charge & Discharge)	(1) Appearance: No Visible Damage (2) DF ($\tan\delta$) ≤ 0.005 (3) Capacitance Change: $\pm 10\%$ of The Initial Value. (4) Insulation Resistance: $\geq 50\%$ Of The Rated Value	a. Test Voltage: Rated Voltage Charge for 2 sec. Discharge for 2 sec. Repeated For 100,000 \pm 1000 cycles b. Test Temperature: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$
14	Heat Resistance (Continuous)	(1) Appearance : No Visible Damage (2) DF ($\tan\delta$) ≤ 0.005 (3) Capacitance Change: $\pm 7\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. Test Voltage : 125% of The Rated Voltage. b. Test Temperature: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$. c. Test Times: 500 \pm 24Hrs

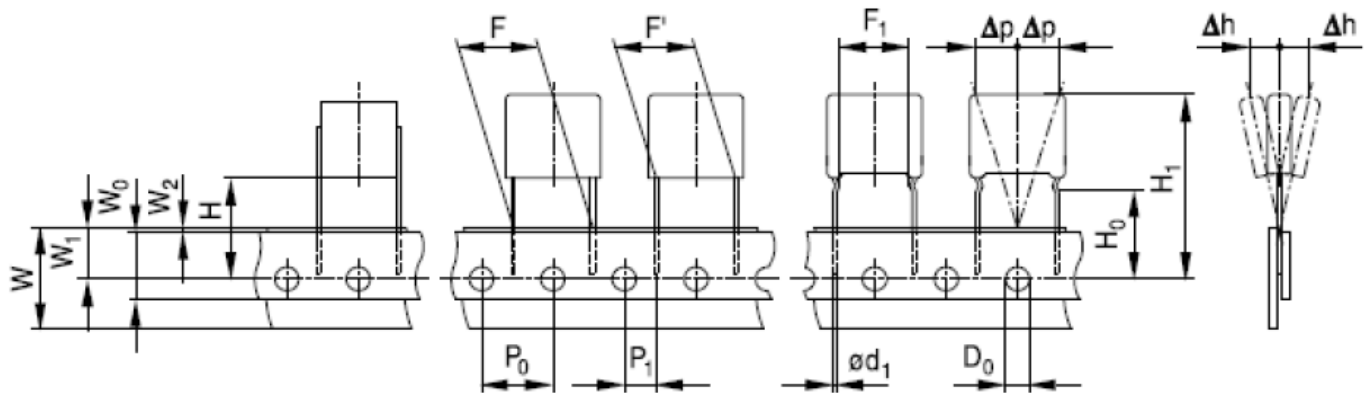
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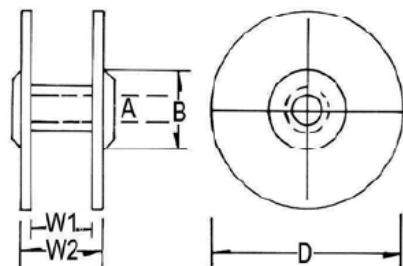
Package Information

Standard 15 mm
 $P_0 = 12.7$ mm



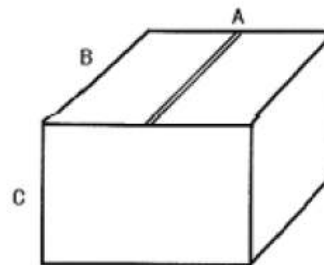
Symbol	$\varnothing d_1$	D_0	F	F'	F_1	H	H_0	H_1	
Dimension (mm)	0.6; 0.8	4.0	15.0	15.0	12.1	18.5	16.0	37.5	
Tolerance (mm)	± 0.05	± 0.2	+0.6/-0.1	± 0.4	± 0.1	± 0.5	± 0.5	max.	
Symbol	P_0	P_1	W	W_0	W_1	W_2	t	Δh	Δp
Dimension (mm)	12.7	5.2	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.2^{\text{A}}$	± 0.7	± 0.5	± 0.5	± 0.5	+2.5	± 0.2	± 2.0	± 1.3

Reel



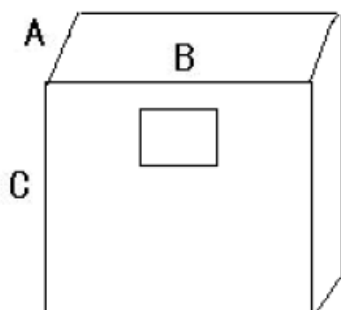
A: 30 ± 3
B: 90 Min
D: 345 Max
W1: $37 + 2 - 2$ mm
W2: 55 Max

Carton



A: 330 Max
B: 360 Max
C: 360 Max

Ammo



A: 60 mm
B: 355 mm
C: 355 mm

Quantity

PCS/Bag	PCS/Small bag 52*27*35	PCS/Big bag 33*25*25
300	3000	6000
500	5000	10000