Safety Standard Certified Ceramic Capacitors-CD Series (Class Y1) Data Sheet

Feature

■Wide capacitance range from 100pF to 4700pF

■Operating Temperature: -40℃～125℃

■Storage Temperature: 15℃~35℃

■Fix capacitors Y1 for electromagetic interference suppression and connection to the supply mains has high dielectric coefficient ceramic dielectric and flame retardant epoxy resin package

Applications

■Can be used for power supply noise suppression circuit in cross connection and bypass.It is a primary and secondary coupling X/Y capacitor used as AC line filter and switching power supply and AC converter

Applicable Standard

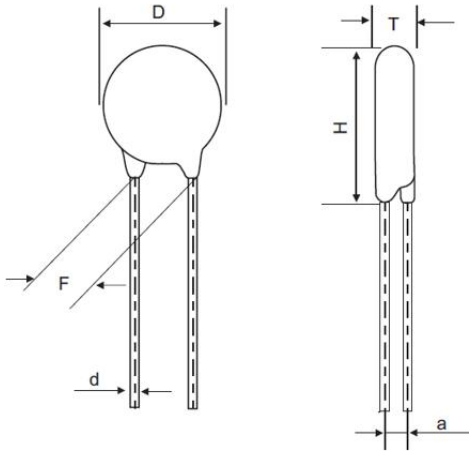
Country	Certification Body	Report Reference	Certificate No.	Capacitance Range	Rated Voltage
USA Canada	UL CUL	UL60384-14	E208107	100～4700pF	X1Y1: 500VAC 1500VDC
Korea	KTL	K60384-14(2015)	SU03031-25001A	100～4700pF	
China	CQC	GB/T6346.14-2023 IEC60384-14:2013+AMD1:2016	CQC19001213616	100～4700pF	
Germany	VDE	DIN EN IEC60384-14:2024; EN IEC60384-14:2023	40025754	100～4700pF	
EU	ENEC	DIN EN IEC60384-14:2024; EN IEC60384-14:2023	40025754	100～4700pF	

Part numbering on request.

Specifications

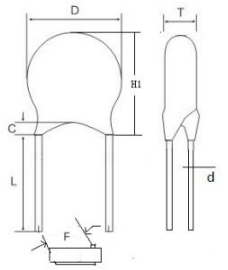
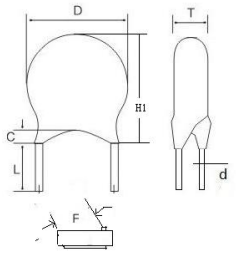
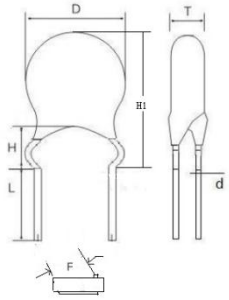
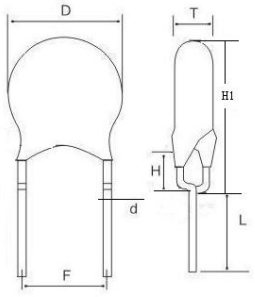
Capacitance and Dissipation factor testing condition	Y5P/Y5U/Y5V:25℃、1KHz、1Vrms
Dissipation Factor(tanδ)	≤2.5%
Rated Voltage	500VAC、400VAC、250VAC 1500VDC
Withstand Voltage	4000VAC
Insulation Resistance (I.R.)	IR≥10000MΩ
Temperature Characteristic	Y5P、Y5U、Y5V
Operating Temperature Range	-40℃to+125℃

Dimensions (mm) and Approval

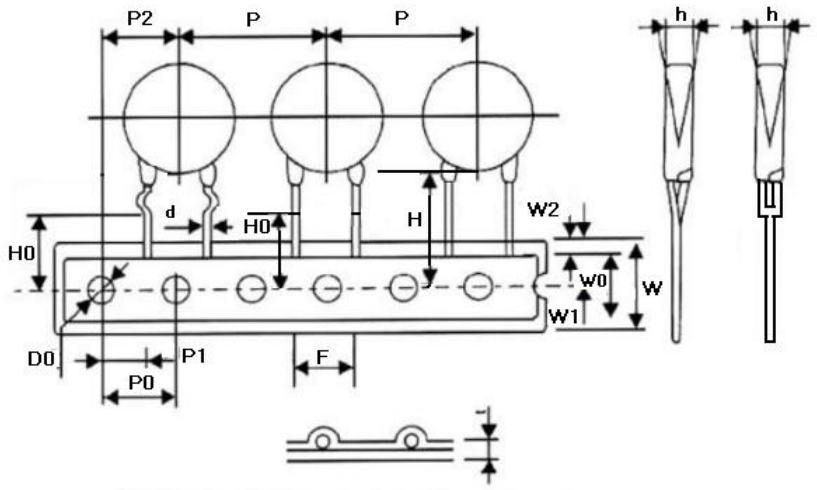


Part No.	Size (mm)				Approval			
	D Max.	T Max.	F±0.5	d±0.05	CQC	VDE	cUL (Canada)	ENEC
Y1-Y5P-101K	7.0	4.0	10.0	0.6	√	√	√	√
Y1-Y5P-151K	7.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5P-221K	7.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5P-331K	8.5	5.0	10.0	0.6	√	√	√	√
Y1-Y5P-471K	9.0	5.0	10.0	0.65	√	√	√	√
Y1-Y5P-561K	10.0	5.0	10.0	0.65	√	√	√	√
Y1-Y5P-681K	10.0	5.0	10.0	0.65	√	√	√	√
Y1-Y5P-102K	12.0	5.5	10.0	0.65	√	√	√	√
Y1-Y5U-331K	7.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5U-471K	7.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5U-561K	7.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5U-681K	8.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5U-102M	8.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5U-152M	10.0	5.0	10.0	0.65	√	√	√	√
Y1-Y5U-222M	11.0	5.0	10.0	0.65	√	√	√	√
Y1-Y5U-332M	13.5	5.5	10.0	0.65	√	√	√	√
Y1-Y5U-472M	16.5	5.5	10.0	0.65	√	√	√	√
Y1-Y5V-102M	7.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5V-152M	8.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5V-222M	9.0	5.0	10.0	0.6	√	√	√	√
Y1-Y5V-332M	11.5	5.5	10.0	0.65	√	√	√	√
Y1-Y5V-472M	12.5	5.5	10.0	0.65	√	√	√	√

Lead Configuration

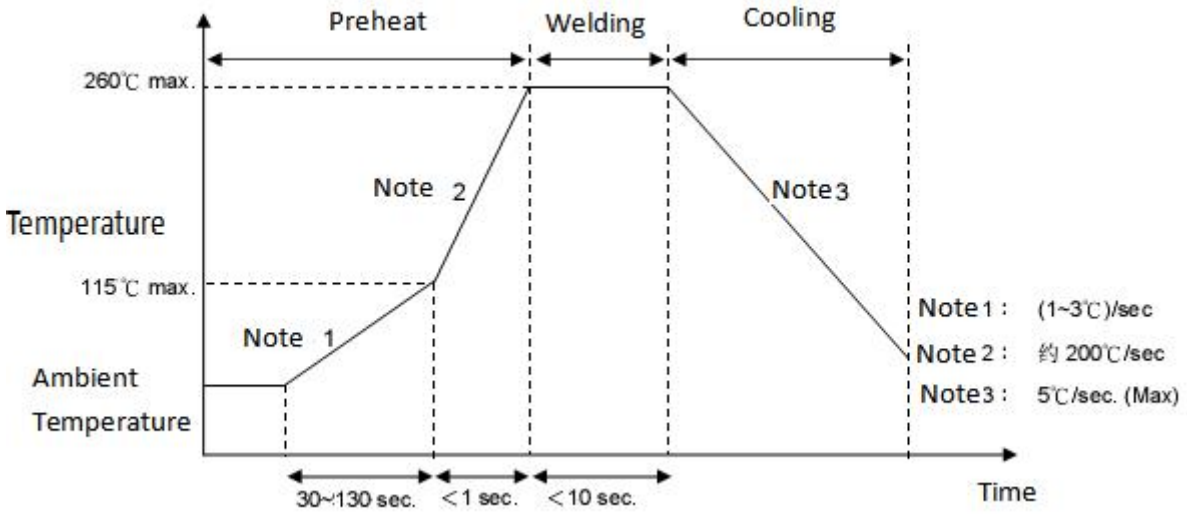
Lead Style	Drawing	Lead Length L (mm)	Coating Lead Length C (mm)	Height H (mm)
Long Straight		16.0 min	①C≤2.5mm (Product diameter < 12mm） ②C≤3.0mm (Product diameter≥12mm)	/
Short Straight		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0	①C≤2.5mm (Product diameter < 12mm） ②C≤3.0mm (Product diameter≥12mm)	/
Outside Crimped		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0	Not exceed the bend point	5.0mm Max
Vertical Crimped		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0	Not exceed the bend point	4.0mm Max

Taping And Dimensions (mm)

Figure	Symbol	P=10.0	
	Po	12.7±0.3	
	P	25.4±1.0	
	P1	7.7±0.7	
	P2	12.7±1.3	
	F	10.0±0.8	
	Δh	0±2.0	
	W	18.0 +1.5/-1.0	
	Wo	10.5 Max	
	W1	9.0+0.75/-0.5	
	W2	3.0 Max	
	Do	4.0±0.2	
	H	20+1.5/-1.0	
	Ho	16.5&17.0&19.0 +1.5/-1.0	
	L	Straight Lead	Crimped Lead
		11.0 Max	9.0 Max
	t1	0.5±0.2	
	t2	1.7 Max	

Soldering Condition

Wave Soldering Graph



Iron Soldering Condition

Item	Condition
Temperature of soldering copper bit	350℃（max.）
Soldering duration	3sec（max.）
Space between soldering position and coating layer	2mm（min.）

Storage Conditions

■ When store under the atmosphere, the terminal may contact with the substance of hydrochloride, hydrosulfide, sulfuric acid, etc. in the atmosphere, which needs to be paid attention to the deterioration of the solderability of the terminal.

■ Product could not be exposed to high humidity and high temperature environment. Please store under below condition with the original packing.

A. Temperature: ≤35℃

B. Himidity: ≤70%RH

C. Storage period: Max 12 months