

Ceramic Disc Capacitor

Class 1 Temperature Compensation

Features

- Linear Temperature coefficient of capacitance
- High Stability of capacitance
- Low loss at wide range of frequency



勝 特 力 材 料 886-3-5753170
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[Http://www.100y.com.tw](http://www.100y.com.tw)

Specification	
Operating Temperature Range	-25°C to +85°C
Rated Working Voltage	DC 50V, 500V
Test Voltage	3 times of the rated voltage
Capacitance	Within the tolerance at 1MHz, 1±0.2 Vrms, 25°C
Q Factor	At 1Mhz: 1±0.2 Vrms, 25°C C > 30pF Q > 1,000 C < 30pF Q ≥ 400+20°C (C: Rated capacitance)
Insulation Resistance	10,000M ohm min.

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50	CH 0±60 PPM/°C (NPO)	0.5 ~ 47	±0.5pF (under 10 pF)	5.5	3.5	5.0
		50 ~ 75		6.5		
		82 ~ 100		7.5		
		120 ~ 150	±5% & ±10% (Over 10 pF)	8.5		5.0, 10.0
		180 ~ 270		10.5		
		300 ~ 390		12.5		
50	SL +350 ~ -1000 PPM/°C	10 ~ 120	±5% & ±10%	5.5	3.5	5.0
		150 ~ 240		6.5		
		270 ~ 330		7.5		
		360 ~ 470	±10%	8.5		
		500 ~ 820		10.5		

Class 2 High Dielectric Constant

Features

- Large capacitance in small size
- Non liner temperature coefficient of capacitance

Specification	
Rated Working Voltage	DC 50V, 500V

Test Voltage 2.5 times of the rated voltage
 Capacitance Within the tolerance at 1MHz, 1 ± 0.2 Vrms, 25°C
 Dissipation Factor Y5P, Z5U : $\tan \delta < 2.5\%$
 Z5V : $\tan \delta < 5\%$
 Insulation Resistance 10,000M ohm or 200M ohm μF , whichever is the smaller

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50	B $\pm 10\%$ (Y5P)	100 ~ 2000	$\pm 10\%$ & $\pm 20\%$	5.5	3.5	5.0
		2000 . 2700		6.5		
		3000 . 3300		7.5		
		3900 . 4700		8.5		
		5600 . 6800		10.5		
		10000 . 2200 . 3300		5.5		
		4700 . 5000		6.5		
		4600 . 6800		7.5		
		8200 . 10000		8.5		
		12000 . 15000		10.5		
50	E $\pm 22 \sim 56\%$ (Z5U)	18000 . 20000	± 20 & $+80-20\%$	5.5	3.5	5.0
		22000 . 4700 . 5000		6.5		
		10000 . 15000		7.5		
		18000 . 20000		8.5		
		22000 . 4700 . 5000		10.5		
		10000 . 15000		5.5		
		18000 . 20000		6.5		
		22000 . 4700 . 5000		7.5		
		10000 . 15000		8.5		
		18000 . 20000		10.5		
50	F $\pm 22 \sim 82\%$ (Z5V)	20000 . 30000	$+80-20\%$	3.5	5.0	
		33000 . 40000		7.5		
				8.5		
				10.5		

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Class 3 Semi Conductive Type

Features

- Linear Temperature coefficient of capacitance
- Stable capacitance change over the specified temperature
- Low loss at wide range of frequency
- Cost saving by replacing film capacitors.
- Ultra large capacitance in small size

Operating Temperature Range -10°C to +85°C
 Rated Working Voltage DC 16V, 25V, 50V
 Test Voltage 2 times of the rated voltage
 Dissipation Factor At 1Mhz: 0.1 Vrms, 25°C
 Factor (tan δ)
 FY 16V 7.5%max
 FY, RY 25/50 5%max
 Insulation Resistance (at 25°C)
 16V, 100M ohm μ F or M ohm μ f
 whichever is less
 25V/50V, 1000M ohm μ F or 20 M ohm μ F
 whichever is less

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)			
		Range (pF)	Tolerance	D max	T max	F	
50	FY +22 ~ 82% (Y5V)	20000 ~ 100000	$\pm 20\%$ & +80-20%	5.5	3.5	5.0	
		20000 ~ 220000		10.5			
		22000		5.5			
		33000 ~ 100000		6.5			
50		200000 ~ 220000		10.5			
		22000		5.5			
		33000 ~ 47000		6.5			
		100000		6.5			
50	RY $\pm 15\%$ (Y5R)	6800 ~ 10000	± 10 & $\pm 20\%$	5.5	3.5	5.0	
		15000 ~ 22000		6.5			
		33000 ~ 47000		7.5			
		68000 ~ 100000		8.5			
50		68000 ~ 10000		5.5			
		15000 ~ 22000		6.5			
		33000 ~ 47000		8.5			
		68000		10.5			

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