

Ceramic Disc Capacitor

Class 1 Temperature Compensation

Features

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



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.

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-54151736
勝特力电子(深圳) 86-755-83298787
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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 ~ - 1000PPM/° C	10 ~ 120	±5% & ±10%	5.5	3.5	5.0
		150 ~ 240		6.5		
		270 ~ 330		7.5		
		360 ~ 470		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

Capacitance

2.5 times of the rated voltage

Within the tolerance at 1MHz, 1 ± 0.2

Vrms, 25°C

Dissipation Factor

Y5P, Z5U : $\tan \delta < 2.5\%$ Z5V : $\tan \delta < 5\%$ Insulation
Resistance10,000M ohm or 200M ohm μF ,
whichever is the smallerRated
Volt.
(VDC)Temp.
Char.

Capacitance

Dimensions (mm)

Range
(pF)

Tolerance

D max

T max

F

50

B
 $\pm 10\%$
(Y5P)

100 ~

2000

2000 .

2700

3000 .

3300

3900 .

4700

5600 .

6800

10000

2200 .

3300

4700 .

5000

4600 .

6800

8200

10000

12000 .

15000

18000 .

20000

22000

4700 .

5000

10000 .

15000

18000 .

20000

20000 .

30000

33000 .

40000

 $\pm 10\%$ &
 $\pm 20\%$

5.5

6.5

7.5

8.5

10.5

5.5

6.5

7.5

8.5

10.5

5.5

6.5

7.5

8.5

10.5

3.5

3.5

3.5

5.0

5.0

5.0

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50

F
 $\pm 22 \sim 82\%$
(Z5V) $+80-20\%$

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

Specification

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 μF or M ohm μf whichever is less
	25V/50V, 1000M ohm μF or 20 M ohm μF 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	±20% & +80-20%	5.5	3.5	5.0				
		20000 ~ 220000		10.5						
		22000		5.5						
		33000 ~ 100000		6.5						
200000 ~ 220000		10.5								
22000		5.5								
50		RY ±15% (Y5R)		33000 ~ 47000			±10 & ±20%	6.5	3.5	5.0
				100000				5.5		
	6800 ~ 10000		5.5							
	15000 ~ 22000		6.5							
33000 ~ 47000			7.5							
68000 ~ 100000			8.5							
68000 ~ 10000			5.5							
15000 ~ 22000			6.5							
50		33000 ~ 47000		8.5						
		68000		10.5						

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