

Lower Voltage Ceramic DC Disc Capacitors 1000 V_{DC} Temperature and Voltage Stabilized



FEATURES

- Low losses
- High stability
- High capacitance in small size
- Complete range of capacitance values
- Radial leads
- Ceramic singlelayer capacitor
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

APPLICATIONS

- Bypassing
- Resonant circuit
- Coupling

DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper or tinned copper clad steel having diameters of 0.020" (0.51 mm) or 0.025" (0.64 mm).

The capacitors may be supplied with radial kinked or straight leads having lead spacing of 0.250" (6.35 mm) or 0.375" (9.5 mm).

The standard tolerance is $\pm 10\%$.

Coating is made of flame retardant epoxy resin in accordance with "UL 94 V-0".

QUICK REFERENCE DATA				
DESCRIPTION	VALUE			
Ceramic Class	1		2	
Ceramic Dielectric	C0G	U2J	X5F	X7R
Voltage (V _{DC})	1000			
Min. Capacitance (pF)	10	27	56	10 000
Max. Capacitance (pF)	10	39	4700	10 000
Mounting	Radial			

INSULATION RESISTANCE

Min. 1000 Ω F or 50 000 M Ω

TOLERANCE ON CAPACITANCE

$\pm 10\%$

DISSIPATION FACTOR

2.0 % max. at 1 kHz; 1 V

CATEGORY TEMPERATURE RANGE

(- 55 to + 125) °C C0G, U2J, X7R

(- 25 to + 85) °C X5F

CLIMATIC CATEGORY ACC. TO EN 60068-1

55/125/21 C0G, U2J, X7R

25/085/21 X5F

OPERATING TEMPERATURE RANGE

(- 55 to + 105) °C

CAPACITANCE RANGE

10 pF to 10 nF

RATED VOLTAGE

1000 V_{DC}

DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

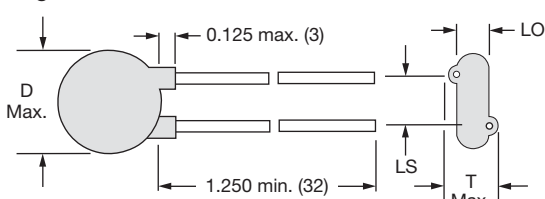
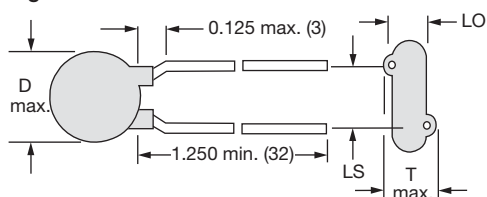
2500 V_{DC}, 2 s

CERAMIC DIELECTRIC

C0G, U2J (Class 1)

X5F, X7R (Class 2)

DIMENSIONS in inches (millimeters)

Fig. 1

Fig. 2

LEAD OFFSET "LO" (nominal)

1000 V_{DC}

0.050" (1.3 mm)

ORDERING INFORMATION, CERAMIC 1000 V_{DC} TEMPERATURE AND VOLTAGE STABILIZED

C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	AWG	WIRE SIZE INCH (mm)	FIG.	ORDERING CODE					
C0G (NP0)													
10	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	561R10TSQ10					
U2J (N750)													
27	± 10	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	561R10TSQ27					
30								561R10TSQ30					
33								561R10TSQ33					
39								561R10TSQ39					
X5F													
56	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	562R10TSQ56					
68											562R10TSQ68		
75											562R10TSQ75		
82											562R10TSQ82		
100											562R10TST10		
120											562R10TST12		
150											562R10TST15		
180											562R10TST18		
200											562R10TST20		
220											562R10TST22		
250											562R10TST25		
270											562R10TST27		
300											562R10TST30		
330											562R10TST33		
390											562R10TST39		
470											562R10TST47		
500											562R10TST50		
560		0.290 (7.4)	0.156 (4.0)	0.250 (6.4)				22	0.025 (0.64)	1	562R10TST56		
680													562R10TST68
750													562R10TST75
820													562R10TST82
1000													562R10TSD10
1500					0.440 (11.2)	0.156 (4.0)	0.250 (6.4)				562R10TSD15		
2000					0.490 (12.4)	0.156 (4.0)	0.375 (9.5)				562R10TSD20		
2200		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)	562R10TSD22								
2700		0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	562R10TSD27								
3300		0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	562R10TSD33								
4700		0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	562R10TSD47								
X7R													
0.010 µF	± 10	0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	22	0.025 (0.64)	1				562R10TSS10		

TAPE AND REEL OPTIONS

- Tape and reel available on diameter sizes 0.250" to 0.680"
- Part number codes and specifications for tape and reel packaging are found in the general information document - find web-link below

RELATED DOCUMENTS

General Information

www.vishay.com/doc?23140



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