

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:

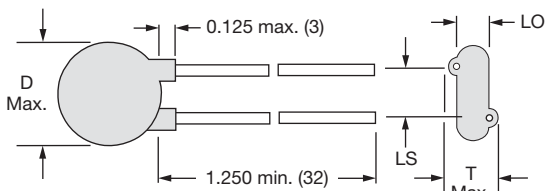
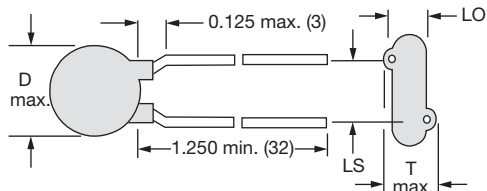
2500 V_{DC}, 2 s

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			0.156 (4.0)	0.250 (6.4)				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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