Lower Voltage Ceramic DC Disc Capacitors
1000 V_{DC} General Purpose

QUICK REFERENCE DATA						
DESCRIPTION	VALUE					
Ceramic Class	1		2			
Ceramic Dielectric	C0G	U2J	X5F	X7R	Y5U	Z5U
Voltage (V_{DC})	1000					
Min. Capacitance (pF)	10	33	100	1000	1000	1200
Max. Capacitance (pF)	10	33	500	1000	1000	100 000
Mounting	Radial					

INSULATION RESISTANCE

Min. 1000 ΩF or 20 000 MΩ

TOLERANCE ON CAPACITANCE

± 20 %

DISSIPATION FACTOR

2.5 % max. at 1 kHz; 1 V

CATEGORY TEMPERATURE RANGE

(- 55 to + 125) °C C0G, U2J, X7R

(- 25 to + 85) °C X5F, Y5U, Z5U

CLIMATIC CATEGORY ACC. TO EN 60068-1

55/125/21 C0G, U2J, X7R

25/085/21 X5F, Y5U, Z5U

OPERATING TEMPERATURE RANGE

(- 55 to + 105) °C

FEATURES

RoHS COMPLIANT

- 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

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 ± 20 %.

Coating is made of resin coating or flammable resistant epoxy resin in accordance with “UL 94 V-0”.

CAPACITANCE RANGE

10 pF to 0.1 µF

RATED VOLTAGE

1000 V_{DC}

DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

2500 V_{DC}, 2 s

CERAMIC DIELECTRIC

C0G, U2J (Class 1)
X5F, X7R, Y5U, Z5U (Class 2)

For technical questions, contact: ceramitesupport@vishay.com

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DIMENSIONS in inches (millimeters)

Fig. 1

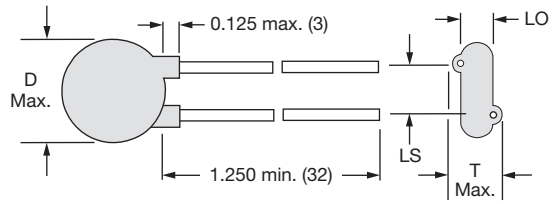
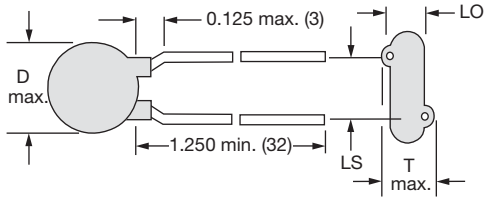


Fig. 2



LEAD OFFSET "LO" (nominal)	
1000 V_{DC}	0.050" (1.3 mm)

ORDERING INFORMATION, CERAMIC 1000 V_{DC} GENERAL PURPOSE

C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	FIG.	WIRE SIZE AWG	WIRE SIZE INCH (mm)	ORDERING CODE
C0G (NP0)								
10	± 20	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	2	24	0.020 (0.51)	561R5GAQ10
U2J (N750)								
33	± 20	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	2	24	0.020 (0.51)	561R5GAQ33
X5F								
100	± 20	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	2	24	0.020 (0.51)	562R5GAT10
150								562R5GAT15
200								562R5GAT20
220								562R5GAT22
330								562R5GAT33
470								562R5GAT47
500								562R5GAT50
X7R								
1000	± 20	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	2	24	0.020 (0.51)	562R5GAD10
Y5U								
1000	+ 100 - 0	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	2	24	0.020 (0.51)	562R5HKD10
Z5U								
1200	± 20	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	2	24	0.020 (0.51)	562R5GAD12
1500								562R5GAD15
2000								562R5GAD20
2200								562R5GAD22
2500								562R5GAD25
2700								562R5GAD27
3000								562R5GAD30
3300								562R5GAD33
4700		0.370 (9.4)	0.156 (4.0)	0.250 (6.4)	1	22	0.025 (0.64)	562R5GAD47
5000		0.370 (9.4)	0.156 (4.0)	0.250 (6.4)				562R5GAD50
6800		0.440 (11.2)	0.156 (4.0)	0.250 (6.4)				562R5GAD68
8200		0.440 (11.2)	0.156 (4.0)	0.250 (6.4)				562R5GAD82
0.010 µF		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)				562R5GAS10
0.010 µF		0.490 (12.4)	0.156 (4.0)	0.250 (6.4)				562R5HKMS10
0.010 µF	+ 100 - 0	0.490 (12.4)	0.156 (4.0)	0.375 (9.5)				562R5HKS10
0.015 µF	± 20	0.560 (14.2)	0.156 (4.0)	0.375 (9.5)				562R5GAS15
0.020 µF		0.680 (17.3)	0.156 (4.0)	0.375 (9.5)				562R5GAS20
0.050 µF		0.770 (19.6)	0.200 (5.1)	0.375 (9.5)				565R10HKS50
0.10 µF		0.950 (24.1)	0.200 (5.1)	0.375 (9.5)				565R10GAP10

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

For technical questions, contact: ceramitesupport@vishay.com

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