

## Lower Voltage Ceramic DC Disc Capacitors 1000 V<sub>DC</sub> Precision Capacitors


**RoHS**  
COMPLIANT

**FEATURES**

- Ultra stable over temperature and voltage
- Used when ultimate stability is required
- Radial leads
- Ceramic singlelayer capacitor
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

**APPLICATIONS**

- Temperature compensating
- Resonant circuit

**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).

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

QUICK REFERENCE DATA			
DESCRIPTION	VALUE		
Ceramic Class	1		
Ceramic Dielectric	C0K	C0G	U2J
Voltage (V <sub>DC</sub> )	1000		
Min. Capacitance (pF)	1.0	3.0	33
Max. Capacitance (pF)	2.7	270	680
Mounting	Radial		

**INSULATION RESISTANCE**

Min. 1000 ΩF or 50 000 MΩ

**TOLERANCE ON CAPACITANCE**

± 5 %

**DISSIPATION FACTOR**

0.1 % max. at 1 MHz; 1 V

**CATEGORY TEMPERATURE RANGE**

(-55 to +125) °C

**CLIMATIC CATEGORY ACC. TO EN 60068-1**

55/125/21

**OPERATING TEMPERATURE RANGE**

(-55 to +105) °C

**CAPACITANCE RANGE**

1.0 pF to 680 pF

**RATED VOLTAGE**

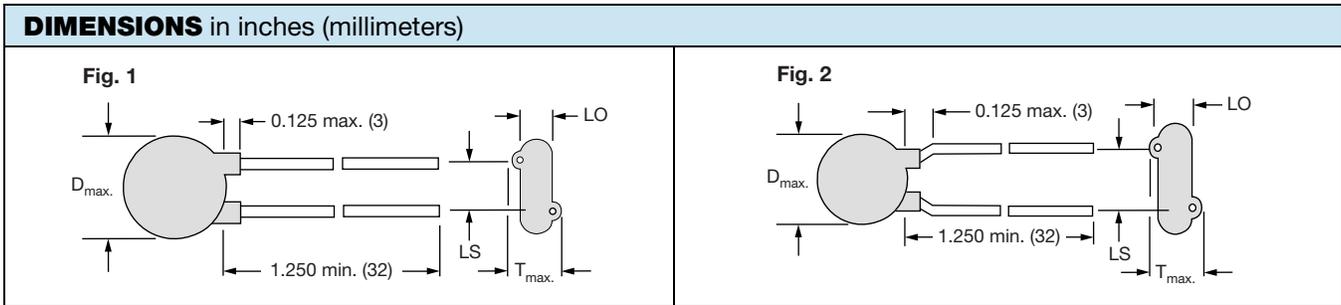
 1000 V<sub>DC</sub>
**DIELECTRIC STRENGTH BETWEEN LEADS**

Component test:

 2500 V<sub>DC</sub>, 2 s

**CERAMIC DIELECTRIC**

C0K, C0G, U2J (class 1)



<b>ORDERING INFORMATION, CERAMIC 1000 V<sub>DC</sub> PRECISION CAPACITORS</b>															
C (pF)	TOL.	D <sub>max.</sub> DIAMETER INCH (mm)	T <sub>max.</sub> THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm) ± 1 mm	LO LEAD OFFSET INCH (mm) ± 0.5 mm	WIRE SIZE		FIG.	ORDERING CODE						
						AWG	INCH (mm)								
<b>C0K (P100)</b>															
1.0	± 0.5 pF	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.098 (2.5)	24	0.020 (0.51)	2	561R10TCCV10						
2.2					0.051 (1.3)				561R10TCCV22						
2.7					0.043 (1.1)				561R10TCCV27						
<b>C0G (NP0)</b>															
3.0	± 0.5 pF	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.063 (1.6)	24	0.020 (0.51)	2	561R10TCCV30						
3.3					0.055 (1.4)				561R10TCCV33						
3.9					0.055 (1.4)				561R10TCCV39						
4.7					0.043 (1.1)				561R10TCCV47						
5.0					0.043 (1.1)				561R10TCCV50						
5.6					0.039 (1.0)				561R10TCCV56						
6.8					0.047 (1.2)				561R10TCCV68						
8.2					0.043 (1.1)				561R10TCCV82						
10					0.051 (1.3)				561R10TCCQ10						
12					0.043 (1.1)				561R10TCCQ12						
15					0.039 (1.0)				561R10TCCQ15						
18					0.043 (1.1)				561R10TCCQ18						
20					0.039 (1.0)				561R10TCCQ20						
22					0.039 (1.0)				561R10TCCQ22						
25					0.035 (0.9)				561R10TCCQ25						
27	0.047 (1.2)	561R10TCCQ27													
30	0.051 (1.3)	561R10TCCQ30													
33	0.047 (1.2)	561R10TCCQ33													
39	0.043 (1.1)	561R10TCCQ39													
47	0.051 (1.3)	561R10TCCQ47													
50	± 5 %	0.440 (11.2)	0.156 (4.0)	0.250 (6.4)	0.047 (1.2)	22	0.025 (0.64)	1	561R10TCCQ50						
56					0.047 (1.2)				561R10TCCQ56						
68					0.490 (12.4)				0.156 (4.0)	0.250 (6.4)	0.047 (1.2)	561R10TCCQ68			
82					0.490 (12.4)				0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCQ82			
100					0.560 (14.2)				0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	561R10TCCT10			
120											0.047 (1.2)	561R10TCCT12			
150											0.630 (16.0)	0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCT15
180											0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCT18
220					0.760 (19.3)				0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCT22			
270					0.890 (22.6)				0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	561R10TCCT27			
<b>U2J (N750)</b>															
33	± 5 %	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	0.039 (1.0)	24	0.020 (0.51)	2	561R10TCUQ33						
68		0.370 (9.4)	0.156 (4.0)	0.250 (6.4)	0.039 (1.0)	22	0.025 (0.64)	2	561R10TCUQ68						
560		0.650 (16.5)	0.156 (4.0)	0.375 (9.5)	0.039 (1.0)	22	0.025 (0.64)	1	561R10TCUT56						
680		0.710 (18.0)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	22	0.025 (0.64)	1	561R10TCUT68						

<b>RELATED DOCUMENTS</b>	
General Information	<a href="http://www.vishay.com/doc?23140">www.vishay.com/doc?23140</a>



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