

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


**RoHS**  
COMPLIANT

**FEATURES**

- Ultra stable over temperature and voltage
- Used when the ultimate in 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	M3K	S3N
Voltage (V <sub>DC</sub> )	1000				
Min. Capacitance (pF)	1.0	3.0	33	560	680
Max. Capacitance (pF)	2.7	270	68	560	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, M3K, S3N (Class 1)

DIMENSIONS in inches (millimeters)	
<b>LEAD OFFSET "LO" (nominal)</b>	
1000 V <sub>DC</sub>	0.050" (1.3 mm)

ORDERING INFORMATION, CERAMIC 1000 V <sub>DC</sub> PRECISION CAPACITORS								
C (pF)	TOL.	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (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)	24	0.020 (0.51)	2	561R10TCCV10
2.2								561R10TCCV22
2.7								561R10TCCV27
<b>C0G (NP0)</b>								
3.0	± 0.5 pF	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	561R10TCCV30
3.3								561R10TCCV33
3.9								561R10TCCV39
4.7								561R10TCCV47
5.0								561R10TCCV50
5.6								561R10TCCV56
6.8								561R10TCCV68
8.2								561R10TCCV82
10								561R10TCCQ10
12								561R10TCCQ12
15								561R10TCCQ15
18								561R10TCCQ18
20								561R10TCCQ20
22								561R10TCCQ22
25								561R10TCCQ25
27	± 5 %	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	22	0.025 (0.64)	1	561R10TCCQ27
30								561R10TCCQ30
33								561R10TCCQ33
39								561R10TCCQ39
47								561R10TCCQ47
50								561R10TCCQ50
56								561R10TCCQ56
68								561R10TCCQ68
82								561R10TCCQ82
100								561R10TCCT10
120								561R10TCCT12
150								561R10TCCT15
180								561R10TCCT18
220								561R10TCCT22
270								561R10TCCT27
<b>U2J (N750)</b>								
33	± 5 %	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	561R10TCUQ33
68								561R10TCUQ68
<b>M3K (N1000)</b>								
560	± 5 %	0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	22	0.025 (0.64)	1	561R10TCUT56
<b>S3N (N3300)</b>								
680	± 5 %	0.630 (16.0)	0.156 (4.0)	0.375 (9.5)	22	0.025 (0.64)	1	561R10TCUT68

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



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[10TCUT68](#) [10TCCQ62BA](#) [10TCUT56](#) [10TCCV50BA](#) [10TCCV50RE](#) [10TCCV30BA](#) [10TCCV22BA](#) [10TCUT15JE](#)  
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