

## **Excellent Integrated System Limited**

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Vishay/Sprague](#)  
[562R10TSD10](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



www.vishay.com

## 561R and 562R Series

Vishay Cera-Mite

# Lower Voltage Ceramic DC Disc Capacitors 1000 V<sub>DC</sub> Temperature and Voltage Stabilized



**RoHS**  
COMPLIANT

### 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](http://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  $\pm 10\%$ .

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

### CAPACITANCE RANGE

10 pF to 10 nF

### RATED VOLTAGE

1000 V<sub>DC</sub>

### DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

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

### CERAMIC DIELECTRIC

C0G, U2J (Class 1)

X5F, X7R (Class 2)

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

### INSULATION RESISTANCE

Min. 1000 ΩF or 50 000 MΩ

### 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

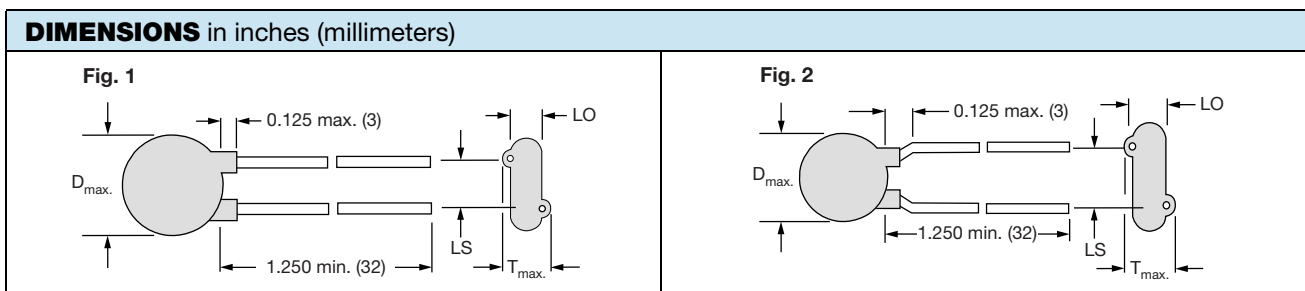
(-55 to +105) °C



www.vishay.com

## 561R and 562R Series

Vishay Cera-Mite



ORDERING INFORMATION, CERAMIC 1000 V <sub>DC</sub> TEMPERATURE AND VOLTAGE STABILIZED												
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>C0G (NP0)</b>												
10	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.051 (1.3)	24	0.020 (0.51)	2	561R10TSQ10			
<b>U2J (N750)</b>												
27	± 10	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	0.047 (1.2)	24	0.020 (0.51)	2	561R10TSQ27			
30					0.039 (1.0)				561R10TSQ30			
33					0.039 (1.0)				561R10TSQ33			
39					0.039 (1.0)				561R10TSQ39			
<b>X5F</b>												
56	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.075 (1.9)	24	0.020 (0.51)	2	562R10TSQ56			
68					0.063 (1.6)				562R10TSQ68			
75					0.059 (1.5)				562R10TSQ75			
82					0.055 (1.4)				562R10TSQ82			
100					0.055 (1.4)				562R10TST10			
120					0.051 (1.3)				562R10TST12			
150					0.043 (1.1)				562R10TST15			
180					0.043 (1.1)				562R10TST18			
200					0.039 (1.0)				562R10TST20			
220					0.051 (1.3)				562R10TST22			
250					0.047 (1.2)				562R10TST25			
270					0.043 (1.1)				562R10TST27			
300		0.039 (1.0)	562R10TST30									
330		0.039 (1.0)	562R10TST33									
390		0.043 (1.1)	562R10TST39									
470		0.039 (1.0)	562R10TST47									
500		0.039 (1.0)	562R10TST50									
560		0.047 (1.2)	562R10TST56									
680		0.043 (1.1)	562R10TST68									
750		0.039 (1.0)	562R10TST75									
820		0.039 (1.0)	562R10TST82									
1000		0.035 (0.9)	562R10TSD10									
1500		0.440 (11.2)	0.156 (4.0)	0.250 (6.4)	0.051 (1.3)				22	0.025 (0.64)	1	562R10TSD15
2000		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)	0.051 (1.3)							562R10TSD20
2200	0.490 (12.4)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	562R10TSD22							
2700	0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	0.051 (1.3)	562R10TSD27							
3300	0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	562R10TSD33							
4700	0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	0.051 (1.3)	562R10TSD47							
<b>X7R</b>												
0.010 μF	± 10	0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	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	<a href="http://www.vishay.com/doc?23140">www.vishay.com/doc?23140</a>



### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.