

## 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

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> 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
<b>C0G (NP0)</b>								
10	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	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)	24	0.020 (0.51)	2	561R10TSQ27
30								561R10TSQ30
33			561R10TSQ33					
39			561R10TSQ39					
<b>X5F</b>								
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		562R10TST56						
680		562R10TST68						
750		562R10TST75						
820	562R10TST82							
1000	562R10TSD10							
1500	± 10	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	22	0.025 (0.64)	1	562R10TSD15
2000								562R10TSD20
2200								562R10TSD22
2700								562R10TSD27
3300								562R10TSD33
4700								562R10TSD47
4700								562R10TSD47
<b>X7R</b>								
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	<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.

## Material Category Policy

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.**

**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.**



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.