

## High Voltage Ceramic DC Disc Capacitors 10 kV<sub>DC</sub> and 15 kV<sub>DC</sub>



### FEATURES

- Low losses
- High capacitance in small sizes
- High stability
- Radial leads
- Ceramic singlelayer capacitor
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT

### APPLICATIONS

- TV and monitors
- SMPS
- DC and pulse high voltage
- X-ray equipment

### DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper having diameters of 0.032" (0.81 mm).

The capacitors may be supplied with straight leads having lead spacing of 0.375" (9.5 mm), 0.500" (12.7 mm) or 0.750" (19.2 mm).

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

### CAPACITANCE RANGE

100 pF to 3300 pF

### DIELECTRIC STRENGTH BETWEEN LEADS

10 kV<sub>DC</sub>      15 000 V<sub>DC</sub>, 2 s  
 15 kV<sub>DC</sub>      24 000 V<sub>DC</sub>, 2 s  
 (in dielectric fluid)

### CERAMIC DIELECTRIC

T3M (Class 1)  
 X5F, Y5R, Y5U, Z5U (Class 2)

QUICK REFERENCE DATA				
DESCRIPTION	VALUE			
Ceramic Class	1		2	
Ceramic Dielectric	T3M (N4700)		X5F, Y5R, Y5U, Z5U	
Voltage (V <sub>DC</sub> )	10 000	15 000	10 000	15 000
Min. Capacitance (pF)	250	100	100	100
Max. Capacitance (pF)	1000	750	3300	2500
Mounting	Radial			

### INSULATION RESISTANCE

Min. 1000 ΩF or 200 000 MΩ

### TOLERANCE ON CAPACITANCE

± 20 % or + 80 %/- 20 %

### DISSIPATION FACTOR

0.2 % max. at 1 kHz; 1 V (Class 1)  
 2.0 % max. at 1 kHz; 1 V (Class 2)

### CATEGORY TEMPERATURE RANGE

- 25 °C to + 85 °C

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

25/85/21

### OPERATING TEMPERATURE RANGE

- 25 °C to + 105 °C

<b>DIMENSIONS</b> in inches (millimeters)	
LEAD OFFSET "LO" (nominal)	
10 kV <sub>DC</sub>	0.20 (5.0)
15 kV <sub>DC</sub>	0.30 (7.6)

<b>ORDERING INFORMATION, CERAMIC 10 kV<sub>DC</sub></b>								
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	AWG	WIRE SIZE INCH (mm)	ORDERING CODE	
<b>T3M (N4700)</b>								
250	± 20	0.490 (12.4)	0.290 (7.4)	0.375 (9.5)	20	0.032 (0.81)	615R100GATT25	
500		0.680 (17.3)	0.320 (8.1)	0.500 (12.7)			615R100GATT50	
680		0.750 (19.1)	0.300 (7.6)				615R100GATT68	
820		0.810 (20.6)	0.320 (8.1)				615R100GATT82	
1000		0.980 (24.9)	0.320 (8.1)	615R100GATD10				
<b>X5F</b>								
100	± 20	0.680 (17.3)	0.370 (9.4)	0.500 (12.7)	20	0.032 (0.81)	615R100GAT10	
250			0.300 (7.6)				615R100GAT25	
500			0.345 (8.8)				615R100GAT50	
<b>Y5R</b>								
100	± 20	0.490 (12.4)	0.320 (8.1)	0.375 (9.5)	20	0.032 (0.81)	615R100GAST10	
250			0.340 (8.6)				615R100GAST25	
500			0.310 (7.9)				615R100GAST50	
1000			0.750 (19.1)	0.320 (8.1)			0.500 (12.7)	615R100GAD10
2500			0.980 (24.9)	0.330 (8.4)				615R100GATD25
<b>Y5U</b>								
1000	+ 80/- 20	0.680 (17.3)	0.330 (8.4)	0.500 (12.7)	20	0.032 (0.81)	615R100GASD10	
<b>Z5U</b>								
2500	+ 80/- 20	0.750 (19.1)	0.350 (8.9)	0.500 (12.7)	20	0.032 (0.81)	615R100GAD25	
3300		0.980 (24.9)	0.390 (9.9)				615R100GAD33	

<b>ORDERING INFORMATION, CERAMIC 15 kV<sub>DC</sub></b>								
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	AWG	WIRE SIZE INCH (mm)	ORDERING CODE	
<b>T3M (N4700)</b>								
100	± 20	0.490 (12.4)	0.470 (11.9)	0.500 (12.7)	20	0.032 (0.81)	615R150GATT10	
250		0.670 (17.0)	0.460 (11.7)	0.750 (19.1)			615R150GATT25	
390		0.750 (19.1)	0.425 (10.8)				615R150GATT39	
500		0.810 (20.6)	0.410 (10.4)				615R150GATT50	
750		1.063 (27.0)	0.430 (10.9)	615R150GATT75				
<b>X5F</b>								
100	± 20	0.670 (17.0)	0.430 (10.9)	0.750 (19.1)	20	0.032 (0.81)	615R150GAT10	
250			0.455 (11.6)				615R150GAT25	
<b>Y5R</b>								
100	± 20	0.490 (12.4)	0.490 (12.4)	0.500 (12.7)	20	0.032 (0.81)	615R150GAST10	
250			0.480 (12.2)				615R150GAST25	
500			0.670 (17.0)	0.450 (11.4)			0.750 (19.1)	615R150GAT50
1000			0.980 (24.9)	0.460 (11.7)				615R150GATD10
<b>Y5U</b>								
500	+ 80/- 20	0.490 (12.4)	0.375 (9.5)	0.500 (12.7)	20	0.032 (0.81)	615R150GAST50	
1000		0.670 (17.0)	0.420 (10.7)	0.750 (19.1)			615R150GAD10	
<b>Z5U</b>								
2200	+ 80/- 20	0.980 (24.9)	0.510 (13.0)	0.750 (19.1)	20	0.032 (0.81)	615R150GAD22	
2500			0.450 (11.4)				615R150GAD25	



## 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.