# High Voltage Ceramic DC Disc Capacitors 10 $kV_{DC}$ and 15 $kV_{DC}$

## 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

RoHS COMPLIANT

## APPLICATIONS

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

## QUICK REFERENCE DATA

| DESCRIPTION | VALUE | | | |
|---|---|---|---|---|
| Ceramic Class | 1 | | 2 | |
| Ceramic Dielectric | T3M (N4700) | | X5F, Y5R, Y5U, Z5U | |
| Voltage ($V_{DC}$) | 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

## 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 $kV_{DC}$ | 15 000 $V_{DC}$, 2 s |
| 15 $kV_{DC}$ | 24 000 $V_{DC}$, 2 s (in dielectric fluid) |

## CERAMIC DIELECTRIC

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



For technical questions, contact: ceramitesupport@vishay.com

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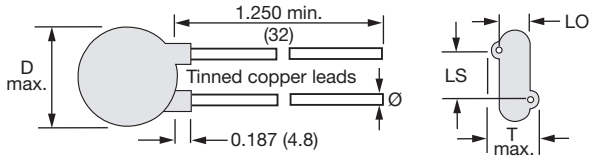
## DIMENSIONS in inches (millimeters)




| LEAD OFFSET "LO" (nominal) | |
|---|---|
| 10 $kV_{DC}$ | 0.20 (5.0) |
| 15 $kV_{DC}$ | 0.30 (7.6) |

## ORDERING INFORMATION, CERAMIC 10 $kV_{DC}$

| C (pF) | TOL. (%) | D DIAMETER INCH (mm) | T THICKNESS INCH (mm) | LS LEAD SPACE INCH (mm) | WIRE SIZE AWG | WIRE SIZE INCH (mm) | ORDERING CODE |
|---|---|---|---|---|---|---|---|
| **T3M (N4700)** | | | | | | | |
| 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) | | | | | 615R100GATT82 |
| 1000 | | 0.980 (24.9) | 0.320 (8.1) | | | | 615R100GATD10 |
| **X5F** | | | | | | | |
| 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 |
| **Y5R** | | | | | | | |
| 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 |
| **Y5U** | | | | | | | |
| 1000 | + 80/- 20 | 0.680 (17.3) | 0.330 (8.4) | 0.500 (12.7) | 20 | 0.032 (0.81) | 615R100GASD10 |
| **Z5U** | | | | | | | |
| 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 |

## ORDERING INFORMATION, CERAMIC 15 $kV_{DC}$

| C (pF) | TOL. (%) | D DIAMETER INCH (mm) | T THICKNESS INCH (mm) | LS LEAD SPACE INCH (mm) | WIRE SIZE AWG | WIRE SIZE INCH (mm) | ORDERING CODE |
|---|---|---|---|---|---|---|---|
| **T3M (N4700)** | | | | | | | |
| 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 |
| **X5F** | | | | | | | |
| 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 |
| **Y5R** | | | | | | | |
| 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 |
| **Y5U** | | | | | | | |
| 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 |
| **Z5U** | | | | | | | |
| 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 |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**Как с нами связаться**

**Телефон:** 8 (812) 309 58 32 (многоканальный)
**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.