RF Power Pot Capacitors
for Coupling Purposes, Class 1 Ceramic Dielectric

FEATURES
• High voltage and capacitance ratings
• High reliability

APPLICATIONS
Filter, bypass and coupling circuits where high voltages and capacitance values are required.

CAPACITANCE RANGE
10 nF to 15 nF

CAPACITANCE TOLERANCE
± 20 %

CERAMIC DIELECTRICS
• N3300 (TCC - 3300 ppm/K)
• R230 (TCC - 750 ppm/K)

RATED VOLTAGE
• 15 kVp
• 20 kVp

DIELECTRIC STRENGTH TEST
150 % of rated AC voltage, 50 Hz, 2 minutes

DISSIPATION FACTOR
Max. 0.08 % (10 kHz)

INDUCTANCE
20 nH (typical)

INSULATION RESISTANCE
Min. 10 000 MΩ (at 25 °C)

OPERATING TEMPERATURE RANGE
-55 °C to +100 °C

QUICK REFERENCE DATA

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Class</td>
<td>1</td>
</tr>
<tr>
<td>Ceramic Dielectric</td>
<td>N3300</td>
</tr>
<tr>
<td>Type</td>
<td>TDZ 050170, TDFZ 060215</td>
</tr>
<tr>
<td>Voltage (Vp)</td>
<td>15 000</td>
</tr>
<tr>
<td>Min. Capacitance (pF)</td>
<td>10 000</td>
</tr>
<tr>
<td>Max. Capacitance (pF)</td>
<td>15 000</td>
</tr>
<tr>
<td>Mounting</td>
<td>Screw terminal</td>
</tr>
</tbody>
</table>

MATERIAL
Capacitor elements made from class 1 ceramic dielectric with noble metal electrodes.
Connection terminals: made from copper / brass, silver plated.

FINISH
Capacitor body completely protective lacquered.
These capacitors feature umbrella-shaped insulation rims made from resin encapsulation (type TDZ) or silicone elastomer (type TDFZ) to minimize the adverse effects of moisture, dust and other impurities in the working environment and to improve the characteristics of the electrical field.

MARKING
Type designator, capacitance value and tolerance, rated peak voltage, ceramic material code, production date code, manufacturer logo.

ACCESSORIES ADDED
These pot capacitors are supplied with the necessary nuts, screws and washers to make the connection to both electrode terminals.
**SAP PART NUMBER AND ELECTRICAL DATA**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CERAMIC</th>
<th>CAP. VALUES (pF)</th>
<th>RATED VOLTAGE (1) (kVp)</th>
<th>RATED POWER (2) (kvar)</th>
<th>RATED CURRENT (Arms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE TDZ 050170</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDZ50170BJ10338AQ1</td>
<td>N3300</td>
<td>10 000</td>
<td>15</td>
<td>12.5</td>
<td>Max. 20</td>
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<tr>
<td>TYPE TDFZ 060197</td>
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<td></td>
<td></td>
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<td>TF060197WP10338AQ1</td>
<td>N3300</td>
<td>10 000</td>
<td>20</td>
<td>20</td>
<td>Max. 30</td>
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<tr>
<td>TYPE TDFZ 060215</td>
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<td></td>
<td></td>
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<tr>
<td>TF060215BJ15338AQ1</td>
<td>N3300</td>
<td>15 000</td>
<td>15</td>
<td>30</td>
<td>Max. 40</td>
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<tr>
<td>TYPE TDFZ 070265</td>
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<td></td>
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<tr>
<td>TF070265WP10338BK1</td>
<td>R230</td>
<td>10 000</td>
<td>20</td>
<td>40</td>
<td>Max. 40</td>
</tr>
</tbody>
</table>

**Notes**

(1) Rated voltage = RF-peak voltage + DC voltage
(2) The surface temperature during operation must not exceed +100 °C

**DIMENSIONS in millimeters (inches)**

**TDZ 050170**

- Ø 70 max. (2.76 max. Dia.)
- M6 thread
- Ø 110 (4.33 Dia.)
- M10 thread
- D1
- L1
- L2
- 6.0 (0.24)
- 20 (0.79)

**TDFZ 060197, TDFZ 060215, TDFZ 070265**

- Ø 110 (4.33 Dia.)
- M10 thread
- Ø 35 (1.38 Dia.)
- M10 thread
- D1
- L1
- L2
- 22 - 1 (0.87 - 0.04)
- 8.0 (0.31)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>D1 (mm (inches))</th>
<th>L1 (mm (inches))</th>
<th>L2 (mm (inches))</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDZ 050170</td>
<td>Ø 50 (1.97 Dia.)</td>
<td>190 ± 5.0 (7.48 ± 0.20)</td>
<td>40 max. (1.58 max.)</td>
</tr>
<tr>
<td>TDFZ 060197</td>
<td>Ø 60 (2.36 Dia.)</td>
<td>197 ± 2.5 (7.76 ± 0.10)</td>
<td>55 (2.17)</td>
</tr>
<tr>
<td>TDFZ 060215</td>
<td>Ø 60 (2.36 Dia.)</td>
<td>215 ± 2.5 (8.47 ± 0.10)</td>
<td></td>
</tr>
<tr>
<td>TDFZ 070265</td>
<td>Ø 70 (2.76 Dia.)</td>
<td>265 - 22 (10.44 - 0.87)</td>
<td>70 (2.76)</td>
</tr>
</tbody>
</table>
DERATING DIAGRAMS

TDZ50170BJ10338AQ1

TF060197WP10338AQ1

TF060215BJ15338AQ1

TF070265WP10338BK1

RELATED DOCUMENTS

General Information

www.vishay.com/doc?22071

www.vishay.com/doc?91000
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