RF Power Barrel Capacitors for Higher Voltages
Class 1 Ceramic

FEATURES
• High voltage and power rating
• Low inner inductance allows operation to high frequency

APPLICATIONS
Filter, bypass and coupling circuits

CAPACITANCE RANGE
1000 pF

CAPACITANCE TOLERANCE
± 20 %

CERAMIC DIELECTRICS
R230 (TCC - 750 ppm/K)

RATED VOLTAGE
40 kVₚ

DIELECTRIC STRENGTH TEST
60 000 VDC (2 minutes)
30 000 VRMS (50 Hz, 3 minutes)

DISSIPATION FACTOR
Max. 0.05 % (300 kHz or 100 kHz)

INSULATION RESISTANCE
Min. 100 000 MΩ (at 25 °C)

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

MATERIAL
Capacitor elements made from class 1 ceramic dielectric with noble metal electrodes.
Connection terminals:
thread terminal, copper / brass, silver plated.
Allowable torque: 1/4-20 UNC thread 6.9 Nm (61.5 lbf in)
8-32 UNC thread 1.8 Nm (16.2 lbf in)

FINISH
Capacitor body completely protective lacquered.

MARKING
Type designator, capacitance value and tolerance, rated peak voltage, ceramic material code, production date code, manufacturer logo, serial no.

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>R230</td>
</tr>
<tr>
<td>Type</td>
<td>TOSZ 114096</td>
</tr>
<tr>
<td>Voltage (Vₚ)</td>
<td>40 000</td>
</tr>
<tr>
<td>Min. Capacitance (pF)</td>
<td>1000</td>
</tr>
<tr>
<td>Max. Capacitance (pF)</td>
<td>1000</td>
</tr>
<tr>
<td>Mounting</td>
<td>Screw terminal</td>
</tr>
</tbody>
</table>

For technical questions, contact: powcap@vishay.com

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## SAP PART NUMBER AND ELECTRICAL DATA

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CERAMIC</th>
<th>CAP. VALUES (pF)</th>
<th>RATED VOLTAGE (kVp)</th>
<th>RATED POWER (1) (kvar)</th>
<th>RATED CURRENT (A RMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BZ114096WZ10238BK1</td>
<td>R230</td>
<td>1000</td>
<td>40</td>
<td>40</td>
<td>30</td>
</tr>
</tbody>
</table>

**Note**

(1) The surface temperature during operation must not exceed +100 °C

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## DIMENSIONS in millimeters (inches)

- Ø 114 (4.49 Dia.)
- 4.14 ± 0.20
- 1.575 ± 0.012
- 8-32 UNC - 2B threads
- Center: 1/4-20 UNC - 2B thread

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## DERATING DIAGRAM

- **Ug (kVp)**
- **Qg (kvar)**
- **Ig (A RMS)**

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## RELATED DOCUMENTS

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