Shear Mode Piezo Elements

#70-50XX

FEATURES
- Quick Delivery
- High Quality
- Competitive Pricing
- Consistent Performance
- Available with Leads

APPLICATIONS
- Sensors
- Actuators
- Accelerometers
- Non-Destructive Testing
- Structural Health Monitoring

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Cat #</th>
<th>Shape</th>
<th>OD / L</th>
<th>ID / W</th>
<th>Thk.</th>
<th>Material</th>
<th>Electrode Pattern</th>
<th>Thk. Freq.</th>
<th>Capacitance</th>
</tr>
</thead>
<tbody>
<tr>
<td>70-5010</td>
<td>Plate</td>
<td>15.00 mm ±0.25</td>
<td>15.00 mm ±0.25</td>
<td>1.00 mm ±0.05</td>
<td>850</td>
<td>Solid</td>
<td>~950 KHz</td>
<td>~2,800 pF</td>
</tr>
<tr>
<td>70-5015</td>
<td>Plate</td>
<td>15.00 mm ±0.25</td>
<td>15.00 mm ±0.25</td>
<td>1.00 mm ±0.05</td>
<td>850</td>
<td>Wrap-Around</td>
<td>~950 KHz</td>
<td>~2,800 pF</td>
</tr>
<tr>
<td>70-5020</td>
<td>Plate</td>
<td>15.00 mm ±0.25</td>
<td>15.00 mm ±0.25</td>
<td>1.00 mm ±0.05</td>
<td>840</td>
<td>Solid</td>
<td>~1.0 MHz</td>
<td>~2,000 pF</td>
</tr>
<tr>
<td>70-5025</td>
<td>Plate</td>
<td>15.00 mm ±0.25</td>
<td>15.00 mm ±0.25</td>
<td>1.00 mm ±0.05</td>
<td>840</td>
<td>Wrap-Around</td>
<td>~1.0 MHz</td>
<td>~2,000 pF</td>
</tr>
</tbody>
</table>

- Max Voltage = 200 V (Peak to Peak); this is a safe value and can sometimes be much higher. Contact APC for more information.
- Thickness is measured before electroding.
- Shear mode plates are poled along the standard 1-axis. Following poling, the fired-on-silver electrodes are removed and element is re-electroded along the 3-axis using an epoxy silver.

APC can customize a shear mode piezo plate or ring to your exact specifications using either an epoxy silver or a sputtered electrode. Contact your APC Representative for more details.

The picture above is representative of APC’s 15mm x 15mm x 1mm shear mode plates. The notches indicate the positive face of the ceramic (red arrow indicates the poling direction). Blue indicates epoxy silver. Note the wrap around electrode for easier lead attachment.

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