24 kHz Transducer

Part No.: 325 40 026

Specifications

Type: Single-Crystal
Frequency: 24 kHz ± 5 kHz
Bandwidth: <5 kHz
Driving voltage: -1000 V to +1000 V
Matching inductance: absent
Piezo electrical cell capacity: 450 pF
Connector type: BNC
Operating temperature: -20º C…+60º C
Contact surface diameter: 50 mm
Dimensions: Diameter: 50 mm
Length (without BNC connector): 95.2 mm
Length (including BNC connector): 107.2 mm
Weight: 1325 g

Electrical Impedance

NOTE! The technical specifications are based on averaging the measurements carried out with 10 Transducers.
54 kHz Exponential Transducer

Part No.: 325 40 176

Specifications

- Type: Single-Crystal
- Frequency: 54 kHz ± 5 kHz
- Bandwidth: <10 kHz
- Driving voltage: -1000 V to +1000 V
- Matching inductance: absent
- Piezo electrical cell capacity: 2 nF
- Connector type: BNC
- Operating temperature: -20° C…+60° C
- Contact surface diameter: 4 mm
- Dimensions: Diameter: 49.7 mm
  Length (without BNC connector): 99.43 mm
  Length (including BNC connector): 111.43 mm
- Weight: 244 g

Electrical Impedance

NOTE! The technical specifications are based on averaging the measurements carried out with 10 Transducers.
54 kHz Transducer

Part No.: 325 40 131

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Single-Crystal</td>
</tr>
<tr>
<td>Frequency</td>
<td>54 kHz ± 5 kHz</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>&lt;10 kHz</td>
</tr>
<tr>
<td>Driving voltage</td>
<td>-1000 V to +1000 V</td>
</tr>
<tr>
<td>Matching inductance</td>
<td>absent</td>
</tr>
<tr>
<td>Piezo electrical cell capacity</td>
<td>2 nF</td>
</tr>
<tr>
<td>Connector type</td>
<td>BNC</td>
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<tr>
<td>Operating temperature</td>
<td>-20°C … +60°C</td>
</tr>
<tr>
<td>Contact surface diameter</td>
<td>36.77 mm</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Diameter: 49.7 mm</td>
</tr>
<tr>
<td></td>
<td>Length (without BNC connector): 46 mm</td>
</tr>
<tr>
<td></td>
<td>Length (including BNC connector): 58 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>287 g</td>
</tr>
</tbody>
</table>

Electrical Impedance

- **Impedance vs. Frequency**
  - Graph showing impedance in Ω across the frequency range of 0 to 500 kHz.
  - Impedance values range from 10,000 to 200 Ω.

- **Phase vs. Frequency**
  - Graph showing phase in degrees across the frequency range of 0 to 500 kHz.
  - Phase values range from 0 to 100 degrees.

NOTE! The technical specifications are based on averaging the measurements carried out with 10 Transducers.
150 kHz Transducer

Part No.: 325 40 141

Specifications

Type: Single-Crystal
Frequency: 150 kHz ± 10 kHz
Bandwidth: <10 kHz
Driving voltage: -1000 V to +1000 V
Matching inductance: absent
Piezo electrical cell capacity: 245 pF
Connector type: BNC
Operating temperature: -20º C...+60º C
Contact surface diameter: 22.27 mm
Dimensions: Diameter: 28 mm
Length (without BNC connector): 46 mm
Length (including BNC connector): 58 mm
Weight: 63 g

Electrical Impedance

NOTE! The technical specifications are based on averaging the measurements carried out with 10 Transducers.
250 kHz Transducer

Part No.: 325 40 177

Specifications

Type: Single-Crystal
Frequency: 250 kHz ± 10 kHz
Bandwidth: <20 kHz
Driving voltage: -1000 V to +1000 V
Matching inductance: absent
Piezo electrical cell capacity: 122 pF
Connector type: BNC
Operating temperature: -20º C…+60º C
Contact surface diameter: 22.27 mm
Dimensions: Diameter: 28 mm
Length (without BNC connector): 46 mm
Length (including BNC connector): 58 mm
Weight: 58 g

Electrical Impedance

NOTE! The technical specifications are based on averaging the measurements carried out with 10 Transducers.
40 kHz Dry-Point Shear Wave Transducer

Part No.: 325 40 210

Specifications

Type: 5 x Dual-Crystal, dry-point contact
Frequency: 40 kHz ± 4 kHz
Bandwidth: 35 – 40 kHz
Driving voltage: -200 to +200 V
Matching inductance: absent
Piezo electrical cell capacity: 5 x 0.6 nF
Connector type: BNC
Operating temperature: 0…+50° C
Contact surface diameter: 5 x 2 mm
Diameter: 84 mm
Length: 114 mm
Weight: 340 g
Wave type: Shear wave

Experimental setup

- POM-C test block with a thickness of 126 mm
- **UPV Settings:** Transducer frequency: 40 kHz. Pulse voltage: 50 V, square wave. Gain: 500. Range: Short range