The Q1025-SFxxL series are miniature conduction cooled, high efficiency acousto-optic Q-switches designed for use with DPSS Nd:YLF and Nd:YAG lasers. These devices exhibit low insertion loss and high damage threshold. All Isomet AO Q-switches benefit from the company’s unparalleled experience in OEM manufacturing, with all key processes maintained in-house. These include optical fabrication, A/R coating and proven high power transducer bonding technology.

Specifications

Acoustic Frequency: 40.68, 68.0 or 80.0MHz
Interaction Material: Dense Flint
Wavelength: 1047nm to 1064nm
A/R Coating: < 0.5% / surface

Active Aperture, H: 1.0 *
Clear Aperture: 2mm
Acoustic Mode: Longitudinal (compressional)
Rise/Fall time: 180nsec / mm beam waist

Polarization: Linear preferred
Transmission: > 99.5% (single pass)
Cavity Insertion Loss: 10% max, <5% typical
Damage Threshold: > 250MW/cm²

RF power: Up to 3W average (max)
Diffraction Efficiency:
RF = 2W >45%
RF = 3W >60%

Cooling: Conduction
Input Impedance: 50 Ohms
VSWR: < 1.2:1

Model Selection:

<table>
<thead>
<tr>
<th>Freq</th>
<th>Active Aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1025-SF</td>
<td>xx L - H</td>
</tr>
<tr>
<td>40.68MHz</td>
<td>40 1.0 1.0mm</td>
</tr>
<tr>
<td>68.0MHz</td>
<td>68</td>
</tr>
<tr>
<td>80.0MHz</td>
<td>80</td>
</tr>
</tbody>
</table>

* Please contact Isomet for alternative apertures.
Outline Drawing

Dimension: Inches

Ensure adequate heaksinking through mounting surface, especially at higher RF powers.

Recommended Drive Electronics

RF Driver with Waveform Generation
AQS1004-FC-x
RF Driver with basic Modulation Control
531C-4, 532C-4

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.
Tel: (703) 321 8301 Fax: (703) 321 8546
E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM