## SPECIFICATIONS

| | | |
|---|---|---|
| AO Medium | | Crystalline Quartz |
| Acoustic Velocity | | 5.74 mm/µs |
| Active Aperture* | | 1.2 mm 'H' |
| Center Frequency (Fc) | | 80 MHz |
| RF Bandwidth | 10 MHz @ | -9 dB Return Loss |
| Input Impedance | | 50 Ohms Nominal |
| VSWR @ Fc | | 1.2 :1 Max |
| Wavelength | | 1064 nm |
| Insertion Loss | | 1 % Max |
| Reflectivity per Surface | | 0.1 % Max |
| Anti-Reflection Coating | | MIL-C-48497 |
| Optical Power Density | | 500 MW/cm$^2$ |
| Contrast Ratio | | 1000 :1 Min |
| Polarization | | 90 ° To Mounting Plane |

## PERFORMANCE VS WAVELENGTH

| | |
|---|---|
| **Wavelength (nm)** | **1064** |
| Operational RF Power (W) | 10 |
| Bragg Angle (mr) | 7.4 |
| Beam Separation (mr) | 14.8 |

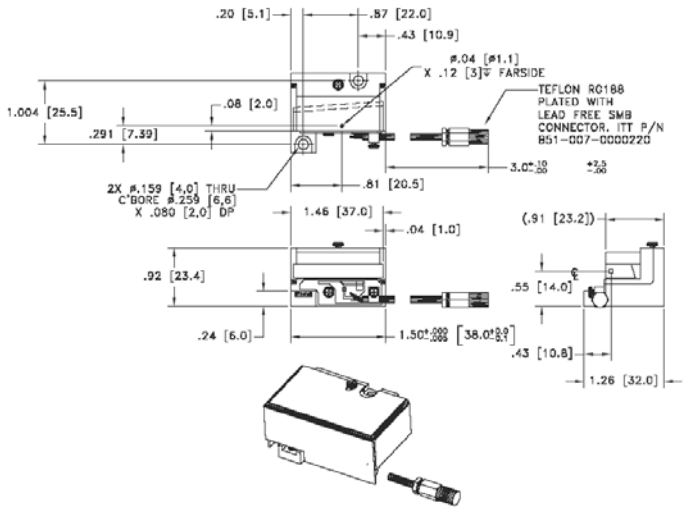
## PERFORMANCE VS BEAM DIAMETER

| | |
|---|---|
| **Beam Diameter (µm)** | **550** |
| *at Wavelength (nm)* | 1064 |
| Diffraction Efficiency (%) | NA |
| Rise Time (nsec) | 115 |
| Modulation Bandwidth | 10 |
| Beam Ellipticity | NA |

| **Special Testing** | **Min** | **Units** | **Max** |
|---|---|---|---|
| Loss modulation | 80 | % | |

*Active Aperture: Aperture over which performance specifications apply.

**Outline Drawing:** **Package 97-02913-05-15rD**




# Document

***03/17/09***

**Control**

Notes:
Optical path 36mm; conduction cooled through base.
Optical window parallelism <1 arc minute.
ROHS compliant materials.
Loss modulation 80% @ 10W with 550um beam waist and a 700um beam height.
Each device to be shipped with cover which is not show in outline.



| | | | | |
|---|---|---|---|---|
| TOLERANCES: .XX ± .01 .XXX ± .005 | DR | Geri Scholz 2/27/2009 | **Crystal Technology, Inc.** | |
| MATERIAL: | CHK | | DESCRIPTION: **AOQS 5080-290** 35mm, 1064nm | |
| FINISH: | APP | | | |
| | APP | | PART NUMBER: 97-02913-05 | REV: F — SHEET 1 OF 1 |