J16SI SERIES
SILICON/GERMANIUM
"SANDWICH" DETECTORS
Operating Instructions

Description

Two color detectors consist of a high performance Silicon detector mounted in a "sandwich" configuration over another detector.

The silicon photodiode responds to radiation from 400 nm to 1000 nm. Longer wavelengths pass through the silicon and are detected by the detector underneath.

J16Si Series detectors are ideal for optic power measurements that need to differentiate between 800nm and either 1300nm or 1550nm. They are also useful for two-color temperature measurements from 500°C to 2000°C.

The Si and Ge elements each require a preamplifier. A Teledyne Judson model PA-7 is recommended for each element.

Applications

- Dual-Wavelength Power Meters
- Wavelength Demultiplexers
- Pyrometers

Applications

- Dual-Wavelength Power Meters
- Wavelength Demultiplexers
- Pyrometers

Typical Specifications J16Si Series Ge @ 22°C

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Part Number</th>
<th>Operating Temp.</th>
<th>Active Size (mm)</th>
<th>Element</th>
<th>Wavelength Range (µm)</th>
<th>Responsivity</th>
<th>Typical Shunt Resistance RD@VR=10mV (ohms)</th>
<th>Typical NEP @ λpeak and 300 Hz (W/Hz^{1/2})</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>J16Si-5A4-R02M-SC</td>
<td>460066-1</td>
<td>22C</td>
<td>3.5</td>
<td>Si</td>
<td>400-1000</td>
<td>0.45 A/W@800nm, 0.65 A/W@1300nm</td>
<td>50M</td>
<td>4.0E-14</td>
<td>5A4</td>
</tr>
<tr>
<td>J16Si-8A4-R03M-SC</td>
<td>460063-1</td>
<td>22C</td>
<td>5.0</td>
<td>Si</td>
<td>400-1000</td>
<td>0.45 A/W@800nm, 0.65 A/W@1300nm</td>
<td>50M</td>
<td>4.0E-14</td>
<td>8A4</td>
</tr>
<tr>
<td>J16Si-8A4-R05M-SC</td>
<td>460129</td>
<td>22C</td>
<td>5.0</td>
<td>Si</td>
<td>400-1000</td>
<td>0.45 A/W@800nm, 0.65 A/W@1300nm</td>
<td>50M</td>
<td>4.0E-14</td>
<td>8A4</td>
</tr>
</tbody>
</table>

Information in this document is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice.