SiC-Photodiode – 0,25 mm² in SMD Package
JEAO,25-5SQ

Characteristics:
- medium area SiC-photodiode for UVA, UVB and UVC
- ceramic SMD package with quartz window
- active area: 0,25 mm²
- spectral range: 210 ... 355 nm
- high UV-responsivity: 0,16 A/W
- RoHS, REACH and WEEE conform

Applications:
- universal UV measurements
- sterilisation lamp control
- flame detection

Maximum ratings:
- reverse voltage: 20 V
- operating temperature: - 55 °C ... 175 °C
- storage temperature: - 55 °C ... 175 °C

Technical Specifications:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test-Parameter</th>
<th>Typical Values</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>chip dimensions</td>
<td></td>
<td>675 x 675</td>
<td>µm²</td>
</tr>
<tr>
<td>active area</td>
<td></td>
<td>0,25</td>
<td>mm²</td>
</tr>
<tr>
<td>spectral range</td>
<td></td>
<td>S = 0,1 x S_max</td>
<td></td>
</tr>
<tr>
<td>λ_low</td>
<td></td>
<td>210</td>
<td>nm</td>
</tr>
<tr>
<td>λ_high</td>
<td></td>
<td>355</td>
<td>nm</td>
</tr>
<tr>
<td>wavelength of maximum responsivity λ_max</td>
<td></td>
<td>265</td>
<td>nm</td>
</tr>
<tr>
<td>maximum responsivity S_max</td>
<td>λ = λ_max</td>
<td>0,16</td>
<td>A/W</td>
</tr>
<tr>
<td>spectral resonsivity S_{254nm}</td>
<td>λ = 254 nm</td>
<td>0,145</td>
<td>A/W</td>
</tr>
<tr>
<td>dark current I_R</td>
<td>V_R = 1 V</td>
<td>100</td>
<td>fA</td>
</tr>
<tr>
<td>junction capacitance C_j</td>
<td>f = 10 kHz</td>
<td>200</td>
<td>pF</td>
</tr>
</tbody>
</table>

Test conditions, as not otherwise specified: T_A = 25 °C , V_R = 0 V

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Absolute Spectral Responsivity $S_{\text{abs}}$:

![Graph showing spectral responsivity](image)

Wavelength (nm)

Package Dimensions without lid:

![Diagram showing package dimensions](image)

Pin Connections:

Pin 1 (Marking): Anode
Pin 4, 8: Cathode
Pin 2, 3, 5, 6, 7: not connected

Total height with lid: 1,6 ± 0,1 mm