DESCRIPTION

The PDB-C607-2 is a silicon red enhanced solderable photodiode designed for low capacitance and high speed for photoconductive applications.

FEATURES

- Red Enhanced
- Photoconductive
- High Quantum Efficiency

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Optical Encoders
- Position Sensor
- Industrial Controls
- Instrumentation

ABSOLUTE MAXIMUM RATINGS

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>MIN</th>
<th>MAX</th>
<th>UNITS</th>
<th>T_a = 23°C UNLESS OTHERWISE NOTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse Voltage</td>
<td>-</td>
<td>-</td>
<td>75 V</td>
<td>-</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40</td>
<td>-</td>
<td>+125 °C</td>
<td>-</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40</td>
<td>to</td>
<td>+100 °C</td>
<td>-</td>
</tr>
<tr>
<td>Soldering Temperature*</td>
<td>-</td>
<td>-</td>
<td>+224 °C</td>
<td>-</td>
</tr>
</tbody>
</table>

* 1/16 inch from case for 3 seconds max.
OPTO-ELECTRICAL PARAMETERS

**PARAMETER** | **TEST CONDITIONS** | **MIN** | **TYP** | **MAX** | **UNITS**
--- | --- | --- | --- | --- | ---
Short Circuit Current | H= 100 fc, 2850 K | 165 | 185 | - | µA
Dark Current | V_R = 5 V | - | 2 | 35 | nA
Shunt Resistance | V_R = 10 mV | 6 | 100 | - | MΩ
Junction Capacitance | V_R =5V; f = 1 MHz | - | 125 | - | pF
Spectral Application Range | Spot Scan | 350 | - | 1100 | nm
Breakdown Voltage | I=10 µA | 50 | 100 | - | V
Noise Equivalent Power | V_R =0V@λ= Peak | - | 5x10^{-14} | - | W/√Hz
Response Time** | RL = 1KΩ; V_R = 5 V | - | 25 | - | nS

**Response time of 10% to 90% is specified at 660nm wavelength light.**

TYPICAL PERFORMANCE

**SPECTRAL RESPONSE**

[Graph showing spectral response]