DESCRIPTION

The PDV-P9003 are (CdS) Photoconductive photocells designed to sense light from 400 to 700 nm. These light dependent resistors are available in a wide range of resistance values. They’re packaged in a two leaded plastic-coated ceramic header.

FEATURES

- Visible light response
- Sintered construction
- Low cost

RELIABILITY

This Luna high-reliability device is in principle able to meet military test requirements (Mil-STD-750, Mil-STD-883) after proper screening and group test. Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Camera exposure
- Shutter controls
- Night light controls

ABSOLUTE MAXIMUM RATINGS

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>MIN</th>
<th>MAX</th>
<th>UNITS</th>
<th>(TA)= 23°C UNLESS OTHERWISE NOTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Voltage</td>
<td>-</td>
<td>150</td>
<td>V</td>
<td>-</td>
</tr>
<tr>
<td>Continuous Power Dissipation</td>
<td>-</td>
<td>90</td>
<td>mW/°C</td>
<td>-</td>
</tr>
<tr>
<td>Operation and Storage Temperature</td>
<td>-30</td>
<td>to +75</td>
<td>V</td>
<td>-</td>
</tr>
<tr>
<td>Soldering Temperature*</td>
<td>-</td>
<td>+260</td>
<td>°C</td>
<td>-</td>
</tr>
</tbody>
</table>

* 0.200 inch from base for 3 seconds with heat sink.
CDS Photoconductive Photocells
PDV-P9003

OPTO-ELECTRICAL PARAMETERS

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>TEST CONDITIONS</th>
<th>MIN</th>
<th>TYP</th>
<th>MAX</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark Resistance</td>
<td>After 10 sec. @10 Lux @ 2856°K</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>MΩ</td>
</tr>
<tr>
<td>Illuminated Resistance</td>
<td>10 Lux @ 2856°K</td>
<td>16</td>
<td>-</td>
<td>33</td>
<td>KΩ</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>( \frac{\log(R100) - \log(R10)}{\log(E100) - \log(E10)} )</td>
<td>-</td>
<td>0.7</td>
<td>-</td>
<td>Ω/Lux</td>
</tr>
<tr>
<td>Spectral Application Range</td>
<td>Flooded</td>
<td>400</td>
<td>-</td>
<td>700</td>
<td>nm</td>
</tr>
<tr>
<td>Spectral Application Range</td>
<td>Flooded</td>
<td>-</td>
<td>570</td>
<td>-</td>
<td>nm</td>
</tr>
<tr>
<td>Rise Time</td>
<td>10 Lux @ 2856 °K</td>
<td>-</td>
<td>60</td>
<td>-</td>
<td>ms</td>
</tr>
<tr>
<td>Fall Time</td>
<td>After 10 Lux @ 2856 °K</td>
<td>-</td>
<td>25</td>
<td>-</td>
<td>ms</td>
</tr>
</tbody>
</table>

**R100, R10: cell resistances at 100 Lux and 10 Lux at 2856 °K respectively.**

**E100, E10: luminances at 100 Lux and 10 Lux 2856 °K respectively.**

TYPICAL PERFORMANCE

CELL RESISTANCE vs. ILLUMINANCE