



DESCRIPTION

The **PDB-C601-1** 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 Encoder
- Position Sensor
- Industrial Controls
- Instrumentation

ABSOLUTE MAXIMUM RATINGS

| SYMBOL | MIN | | MAX | UNITS | |
|------------------------|-----|----|------|-------|--|
| Reverse Voltage | - | - | 75 | V | T _a = 23°C UNLESS OTHERWISE NOTED |
| Storage Temperature | -40 | - | +125 | °C | - |
| Operating Temperature | -40 | to | +100 | °C | - |
| Soldering Temperature* | - | - | +224 | °C | - |

* 1/16 inch from case for 3 seconds max.

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS NOTED OTHERWISE

| PARAMETER | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------------------------|--------------------------------|-----|---------------------|------|-------|
| Short Circuit Current | H= 100 fc, 2850 K | 15 | 17 | - | μA |
| Dark Current | V _R = 5 V | - | 0.5 | 2 | nA |
| Shunt Resistance | V _R = 10 mV | 60 | 150 | - | MΩ |
| Junction Capacitance | V _R =5V; f = 1 MHz | - | 10 | - | pF |
| Spectral Application Range | Spot Scan | 350 | - | 1100 | nm |
| Breakdown Voltage | I=10 μA | 25 | 50 | - | V |
| Noise Equivalent Power | V _R =0V@λ= Peak | - | 1x10 ⁻¹⁴ | - | W/√Hz |
| Response Time** | RL = 1KΩ, V _R = 5 V | - | 10 | - | nS |

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

