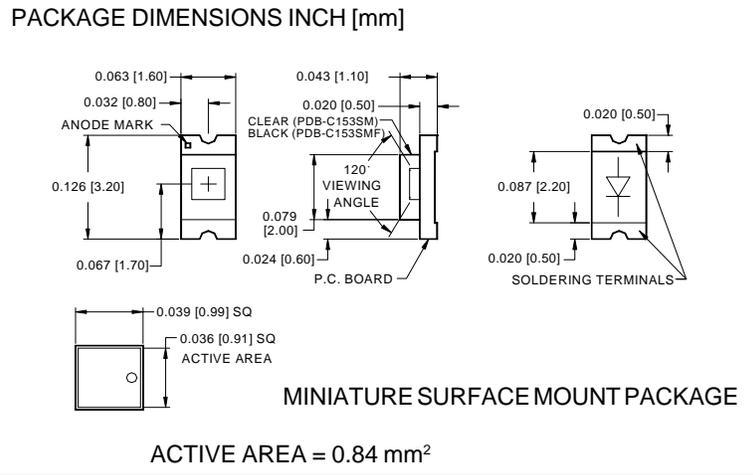
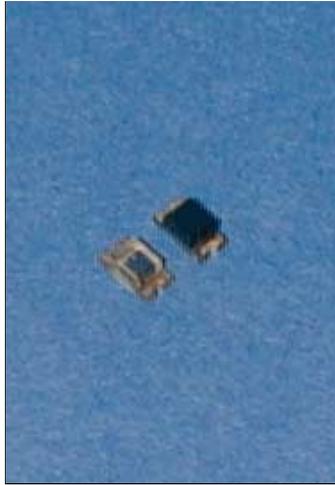


PHOTONIC DETECTORS INC.

Silicon Photodiode, Photoconductive, Surface Mount Type PDB-C153SM, with daylight filter Type PDB-C153SMF



FEATURES

- Surface mount
- Low cost
- Tape and reeled
- High speed

DESCRIPTION

The **PDB-C153SM** is a silicon, PIN planar diffused, surface mount photodiode packaged in water clear resin. Ideal for high speed photoconductive applications. The **PDB-C153SMF** includes a daylight filter.

APPLICATIONS

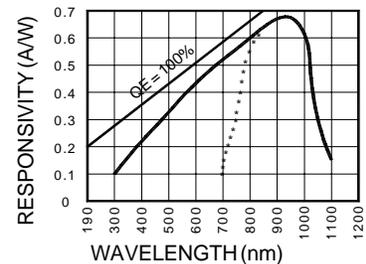
- Floppy disk drives
- Industrial controls
- Opto switches
- Opto counters

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

| SYMBOL | PARAMETER | MIN | MAX | UNITS |
|------------------|-----------------------------|-----|------|-------|
| V _{BR} | Reverse Voltage | | 15 | V |
| T _{STG} | Storage Temperature | -30 | +85 | °C |
| T _O | Operating Temperature Range | -25 | +85 | °C |
| T _S | Soldering Temperature* | | +240 | °C |
| I _L | Light Current | | 500 | mA |

*1/16 inch from case for 3 secs max

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|--------------------|--|---------------------------------|-----|-----------------------|------|---------|
| I _{SC} | Short Circuit Current | H = 100 fc, 2850 K | 9 | 10 | | mA |
| I _D | Dark Current | H = 0, V _R = 10 V | | 2 | 10 | nA |
| R _{SH} | Shunt Resistance | H = 0, V _R = 10 mV | | 100 | | MΩ |
| TC _{RSH} | R _{SH} Temp. Coefficient | H = 0, V _R = 10 mV | | -8 | | % / °C |
| C _J | Junction Capacitance | H = 0, V _R = 10 V** | | 16 | 20 | pF |
| λ _{range} | Spectral Application Range (without daylight filter)** | | 400 | | 1100 | nm |
| λ _p | Spectral Response - Peak | Spot Scan | | 950 | | nm |
| V _{BR} | Breakdown Voltage | I = 10 mA | 33 | 170 | | V |
| NEP | Noise Equivalent Power | V _R = 10 V @ Peak | | 1.5x10 ⁻¹³ | | W / √Hz |
| tr | Response Time | RL = 1 KΩ V _R = 10 V | | 10 | | nS |

Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice. **f = 1 MHz, **daylight filter = 700-1100 nm

[FORM NO. 100-PDB-C153SM REV F]