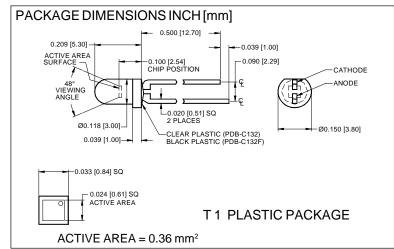
PHOTONIC Silicon Photodiode, Blue Enhanced Photoconductive **DETECTORS INC.** Type PDB-C132, with daylight filter Type PDB-C132F





FEATURES

- Photoconductive
- High speed
- Low cost

DESCRIPTION: The **PDB-C132** detector is

a 0.36 mm² planar pin photodiode packaged in a T 1, water clear plastic housing.

Designed for high speed, low capacitance, photoconductive applications. The

PDB-C132F includes a daylight filter.

APPLICATIONS

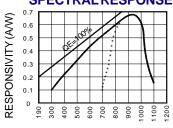
- Smoke detectors
- Light pen detectors
- TV & VCR remotes

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

| SYMBOL | PARAMETER | MIN | MAX | UNITS | |
|------------------|-----------------------------|-----|------|-------|--|
| V_{BR} | Reverse Voltage | | 100 | V | |
| T _{STG} | Storage Temperature | -40 | +100 | ∘C | |
| T _o | Operating Temperature Range | -40 | +80 | ∘C | |
| T _s | Soldering Temperature* | | +260 | ∘C | |
| I _L | Light Current | | 0.5 | mA | |

^{*1/16} inch from case for 3 secs max

SPECTRAL RESPONSE



WAVELENGTH (nm)

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 | 8 | 10 | | μ A |
| I _D | Dark Current | H = 0, V _R = 10 V | | 1 | 5 | nA |
| R _{SH} | Shunt Resistance | $H = 0, V_R = 10 \text{ mV}$ | .5 | 5 | | GΩ |
| TCR _{SH} | RSH Temp. Coefficient | $H = 0, V_R = 10 \text{ mV}$ | | -8 | | %/°C |
| C _J | Junction Capacitance | H = 0, V _R = 10 V* | | 2 | 5 | pF |
| λrange | Spectral Application Range | (without daylight filter)** | 400 | | 1100 | nm |
| λр | Spectral Response - Peak | | | 950 | | nm |
| V _{BR} | Breakdown Voltage | I = 10 μA | 50 | 100 | | V |
| NEP | Noise Equivalent Power | V _R = 10 V @ Peak | | 6.0x10 ⁻¹⁵ | | W/ √Hz |
| tr | Response Time | $RL = 1 K\Omega V_R = 10 V$ | | 5 | | nS |