

FEATURES

- Surface Mount
- Low Cost
- Photoconductive
- High speed

DESCRIPTION

The **PDB-C160SM** is a red enhanced PIN silicon photodiode ideal for high speed photoconductive applications packaged in a surface mount package.

APPLICATIONS

- Photointerrupters
- Industrial Electronics
- IR Remote Control
- Control & Drive Circuits



ABSOLUTE MAXIMUM RATING

(TA)= 25°C UNLESS OTHERWISE NOTED

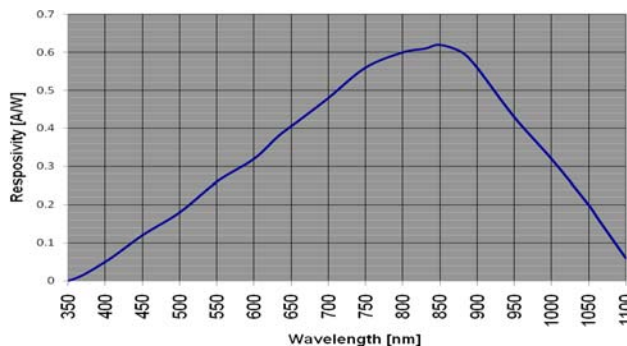
SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		32	V
T _{STG}	Storage Temperature	-40	+100	°C
T _O	Operating Temperature	-40	+100	°C
T _S	Soldering Temperature*		+260	°C

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

RELIABILITY

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

TYPICAL SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 25°C, UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{SC}	Short Circuit Current	H = 100 fc, 2856 K		80	95	μA
I _D	Dark Current	V _R = 10 V		2	30	nA
R _{SH}	Shunt Resistance	V _R = 10 mV		250		MΩ
C _J	Junction Capacitance	V _R = 0 V, f = 1 MHz		72		pF
I _{range}	Spectral Application Range	Spot Scan	400		1100	nm
S _λ	Peak Wave Length	λ = 850nm		0.62		A/W
NEP	Noise Equivalent Power	V _R = 10V @ I=Peak		4.1x10 ⁻¹⁴		W/√Hz
t _r	Response Time	RL = 50Ω, V _R = 5 V, λ = 850nm		20		nS

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

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

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