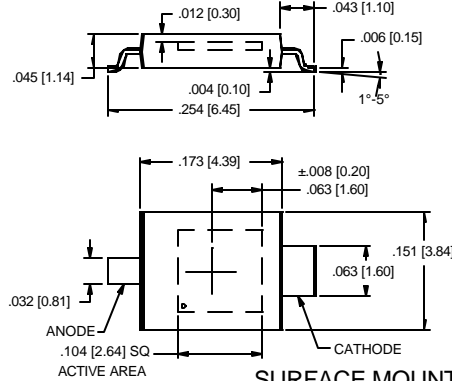


PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Photoconductive SURFACE MOUNT Type PDB-C160SM



PACKAGE DIMENSIONS INCH (mm)



FEATURES

- 20 ns switching time
- Low capacitance
- Blue enhanced
- Low dark current

DESCRIPTION

The **PDB-C160SM** is a silicon, PIN planar diffused, blue enhanced SMT packaged photodiode. Ideal for high speed photoconductive applications. Suitable for vapor-phase and reflow soldering.

APPLICATIONS

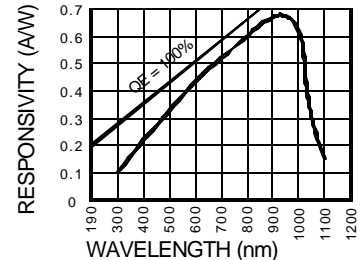
- Photointerrupters
- I.R. remote controls
- Industrial electronics
- Control & drive circuits

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	+80	°C
T _O	Operating Temperature Range	-40	+80	°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	90	95		mA
I _D	Dark Current	H = 0, V _R = 10 V		2	30	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	100	250		MΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-2.6		% /K
C _J	Junction Capacitance	H = 0, V _R = 10 V**		72		pF
λ _{range}	Spectral Application Range		400		1100	nm
λ _p	Spectral Response - Peak	Spot Scan		850		nm
V _{BR}	Breakdown Voltage	I = 10 mA	50	100		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		4.1x10 ⁻⁴		W/√Hz
tr	Response Time	RL = 50 Ω V _R = 5 V		20		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