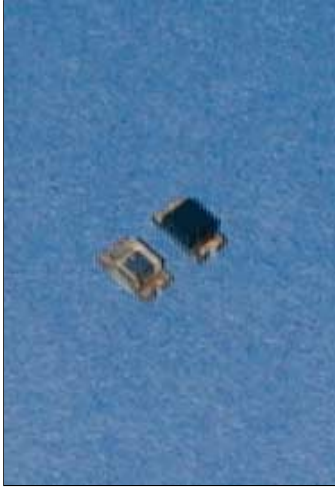
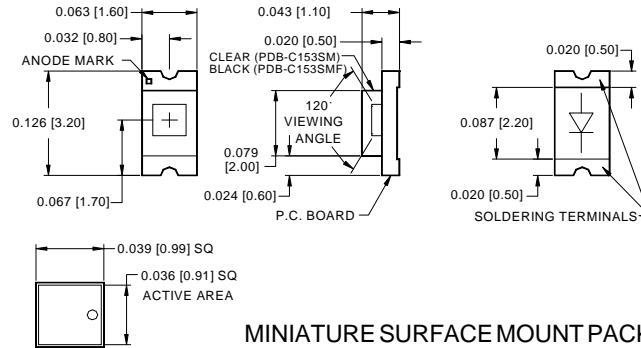


# PHOTONIC DETECTORS INC.

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



## PACKAGE DIMENSIONS INCH [mm]



## MINIATURE SURFACE MOUNT PACKAGE

### 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

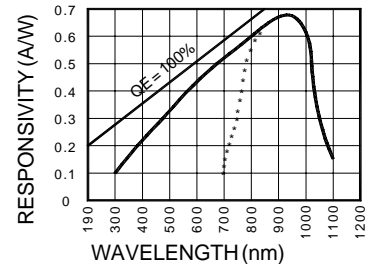
- Floppy disk drives
- Industrial controls
- Opto switches
- Opto counters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		15	V
T <sub>STG</sub>	Storage Temperature	-30	+85	°C
T <sub>O</sub>	Operating Temperature Range	-25	+85	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C
I <sub>L</sub>	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 <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	9	10		mA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		2	10	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV		100		MΩ
TC <sub>RSH</sub>	R <sub>SH</sub> Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		16	20	pF
λ <sub>range</sub>	Spectral Application Range (without daylight filter)**		400		1100	nm
λ <sub>p</sub>	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 mA	33	170		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		1.5x10 <sup>-13</sup>		W / √ Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 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]