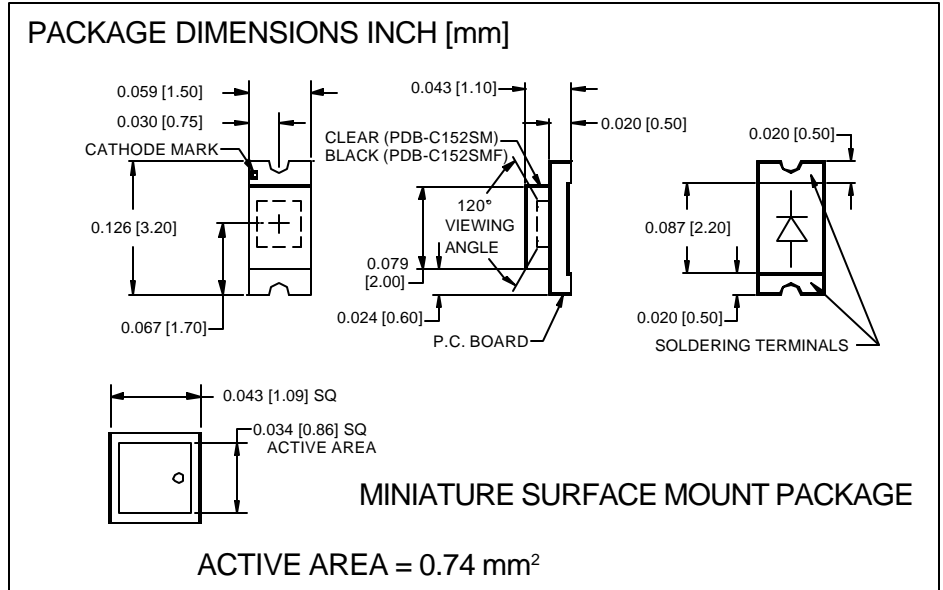


PHOTONIC DETECTORS INC.

Silicon Photodiode, Photoconductive, Surface Mount Type PDB-C152SM, with daylight filter Type PDB-C152SMF



FEATURES

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

DESCRIPTION

The **PDB-C152SM** is a silicon, PIN planar diffused, surface mount photodiode packaged in water clear resin. Ideal for high speed photoconductive applications. The **PDB-C152SMF** includes a daylight filter.

APPLICATIONS

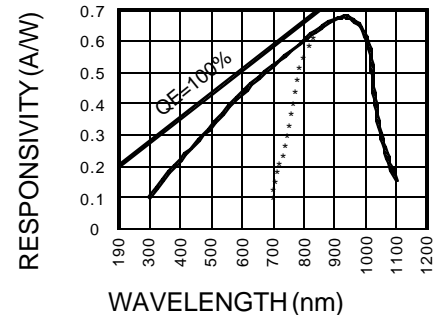
- Floppy disk drives
- Industrial controls
- Opto switches
- Opto counters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		50	V
T _{STG}	Storage Temperature	-40	+90	°C
T _O	Operating Temperature Range	-40	+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	8	10		μA
I _D	Dark Current	H = 0, V _R = 10 V		2	10	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	.5	5		GΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 10 V**		15	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 μA	50	100		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		50		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 = 700-1000 nm [FORM NO. 100-PDB-C152SM REV B]