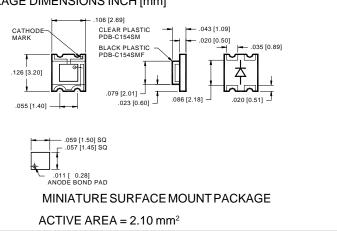
#### PHOTONIC Silicon Photodiode, Blue Enhanced Photoconductive Type PDB-C154SM, with daylight filter Type PDB-C154SMF DETECTORS INC.



PACKAGE DIMENSIONS INCH [mm]



### **FEATURES**

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

The PDB-C154SM is a silicon, PIN planar diffused, surface mount photodiode packaged in water clear resin. Ideal for high speed photoconductive operations. The PDB-C154SMF includes a daylight filter.

#### **APPLICATIONS**

· Floppy disk drives

**SPECTRAL RESPONSE** 

400 500 600 700 800 900

WAVELENGTH (nm)

000 1100 200

- Industrial controls
- Opto switches
- Opto counters

0.7

0.6 0.5 0.4 0.3 0.2 0.1 0 190 300

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

SYMBOL	PARAMETER	MIN	MAX	UNITS	Ś				
Vbr	Reverse Voltage		15	V	₹				
T <sub>stg</sub>	Storage Temperature	-30	+85	°C	SIVIT				
То	Operating Temperature Range	-25	+85	°C	SNC				
Ts	Soldering Temperature*		+240	°C	SPC 1				
Ι	Light Current		500	mA	8				

\*1/16 inch from case for 3 secs max

## ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
lsc	Short Circuit Current	H = 100 fc, 2850 K	20	25		<b>m</b> A
ΙD	Dark Current	H = 0, V <sub>R</sub> = 10 V		2	10	nA
Rsн	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	.5	5		GΩ
TC RSH	RsH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
CJ	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		4	6	pF
λrange	Spectral Application Range	(without daylight filter)**	400		1100	nm
λρ	Spectral Response - Peak	Spot Scan		950		nm
Vbr	Breakdown Voltage	I = 10 <b>m</b> A	33	170		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		1.5x10 <sup>-13</sup>		W/ √ Hz
tr	Response Time	$RL = 1 K\Omega V_R = 10 V$		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, \*\*day light filter = 700 - 1100 nm [FORM NO. 100-PDB-C154SM REV A]