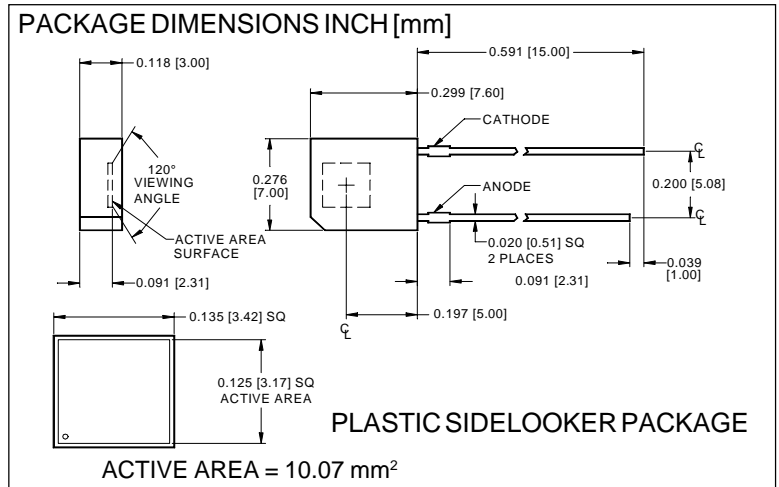
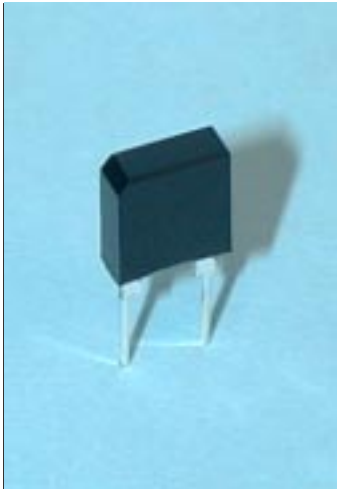


# PHOTONIC DETECTORS INC.

## Silicon Photodiode, Blue Enhanced Photoconductive with daylight filter Type PDB-C159F



### FEATURES

- Large active area
- High speed
- Low cost

**DESCRIPTION:** The **PDB-C159F** detector is a 9.00 mm<sup>2</sup> planar pin photodiode packaged in a black plastic side-looker housing. Designed for high speed, low capacitance, photoconductive applications. The **PDB-C159F** includes a daylight filter.

### APPLICATIONS

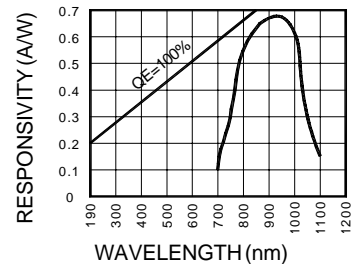
- I.R. links
- I.R. sensors
- I.R. remotes

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		50	V
T <sub>STG</sub>	Storage Temperature	-30	+100	°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	59	68		μA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		5	30	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	75	100		MΩ
TCR <sub>SH</sub>	RSH 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*		15	20	pF
λrange	Spectral Application Range	(with daylight filter)	700		1100	nm
λp	Spectral Response - Peak			950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	25	30		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		7x10 <sup>-13</sup>		W/√Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 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,

[FORM NO. 100-PDB-C159 REV AJ]