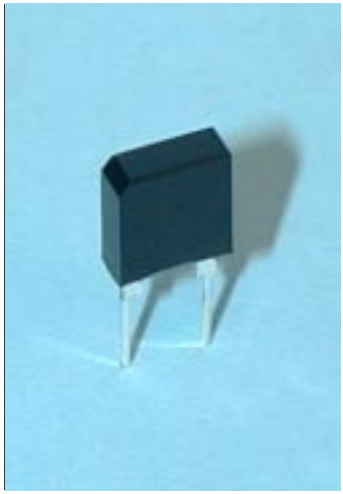
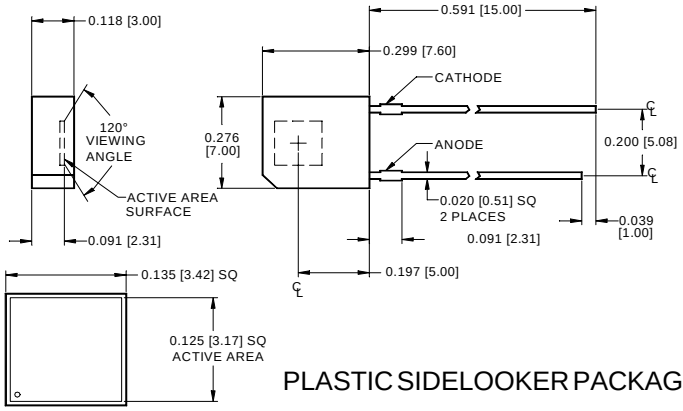
PHOTONIC DETECTORS INC.

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



PACKAGE DIMENSIONS INCH [mm]



PLASTIC SIDELOOKER PACKAGE

ACTIVE AREA = 10.07 mm^2

FEATURES

- Large active area
- High speed
- Low cost

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

APPLICATIONS

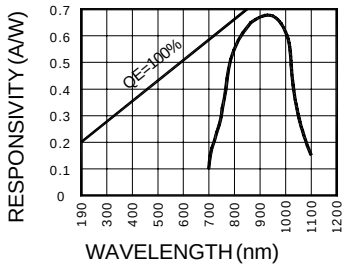
- I.R. links
- I.R. sensors
- I.R. remotes

ABSOLUTE MAXIMUM RATING (TA=25^{O}C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		50	V
T_{STG}	Storage Temperature	-30	+100	^{O}C
T_{O}	Operating Temperature Range	-25	+85	^{O}C
T_{S}	Soldering Temperature*		+240	^{O}C
I_{L}	Light Current		500	mA

*1/16 inch from case for 3 secs max

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS (TA=25^{O}C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{SC}	Short Circuit Current	H = 100 fc, 2850 K	59	68		μA
I_{D}	Dark Current	H = 0, V_R = 10 V		5	30	nA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	75	100		MΩ
TCR_{SH}	RSH Temp. Coefficient	H = 0, V_R = 10 mV		-8		% / ^{o}C
C_{J}	Junction Capacitance	H = 0, V_R = 10 V*		15	20	pF
λrange	Spectral Application Range	(with daylight filter)	700		1100	nm
λp	Spectral Response - Peak			950		nm
V_{BR}	Breakdown Voltage	I = 10 μA	25	30		V
NEP	Noise Equivalent Power	V_R = 10 V @ Peak		$7x10^{-13}$		W/ $\sqrt{Hz}$
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,