

FEATURES

- Large active area
- Photoconductive
- Low cost
- High speed

DESCRIPTION

The **PDB-C158F** is a blue enhanced PIN silicon photodiode in a photoconductive mode with a daylight filter, packaged in a plastic side looker package.

APPLICATIONS

- Smoke detectors
- Light pen detectors
- TV & VCR remotes
- IR data links

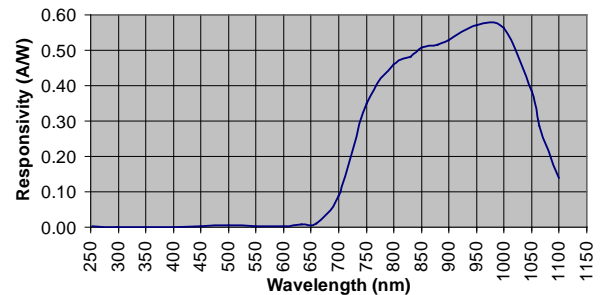


ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		50	V
T_{STG}	Storage Temperature	-40	+100	°C
T_O	Operating Temperature	-40	+80	°C
T_S	Soldering Temperature*		+260	°C

* 1/16 inch from case for 3 seconds max.

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{SC}	Short Circuit Current	$H = 100 \text{ fc}, 2850 \text{ K}$	100	145		μA
I_D	Dark Current	$V_R = 10 \text{ V}$		2	30	nA
R_{SH}	Shunt Resistance	$V_R = 10 \text{ mV}$	100	150		$\text{M}\Omega$
C_J	Junction Capacitance	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$		10	25	pF
λ_{range}	Spectral Application Range	Spot Scan	700		1100	nm
V_{BR}	Breakdown Voltage	$I = 10 \mu\text{A}$	30	75		V
NEP	Noise Equivalent Power	$V_R = 10 \text{ V} @ \lambda = \text{Peak}$		2.4×10^{-14}		$\text{W}/\sqrt{\text{Hz}}$
t_r	Response Time	$\text{RL} = 1 \text{ K}\Omega, V_R = 10 \text{ V}$		50		nS

**Response time of 10% to 90% is specified at 660nm wavelength light.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.