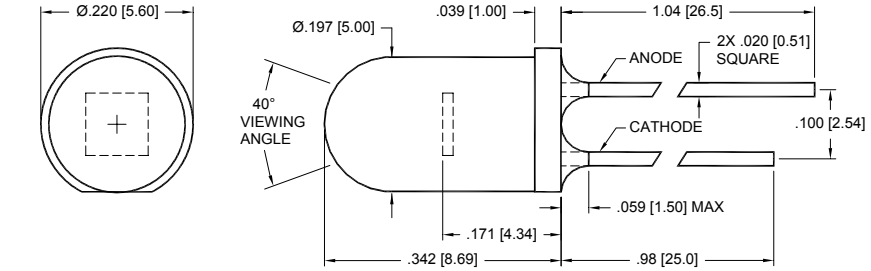
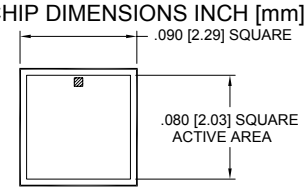
Plastic Photodiode Package with Visible Blocking Filter

PDB-C142F

PACKAGE DIMENSIONS INCH [mm]



CHIP DIMENSIONS INCH [mm]



T1 3/4 PLASTIC PACKAGE

FEATURES

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

DESCRIPTION

The **PDB-C142F** is a blue enhanced PIN silicon photodiode in a photoconductive mode with a daylight filter, packaged in a T1 ¾ plastic package.

APPLICATIONS

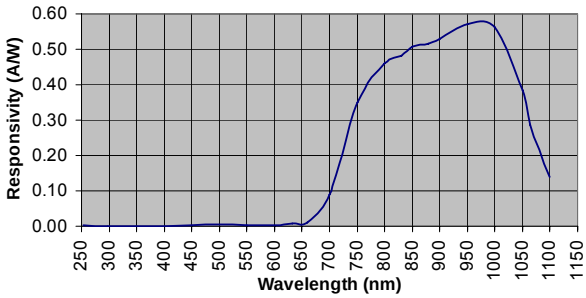
- Smoke detectors
- Light pen detectors
- TV & VCR remotes
- Bar code detectors

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 fc, 2850 K	100	150		μA
I_D	Dark Current	V_R = 10 V		5	30	nA
R_{SH}	Shunt Resistance	V_R = 10 mV	100	500		MΩ
C_J	Junction Capacitance	V_R = 10 V, f = 1 MHz		18	25	pF
λrange	Spectral Application Range	Spot Scan	700		1100	nm
V_{BR}	Breakdown Voltage	I = 10 μA	15	25		V
NEP	Noise Equivalent Power	V_R = 10V @ λ=Peak		$2.4x10^{-14}$		W/ $\sqrt{}$ Hz
t_r	Response Time	RL = 50 Ω, V_R = 50 V		50		nS

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

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