



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



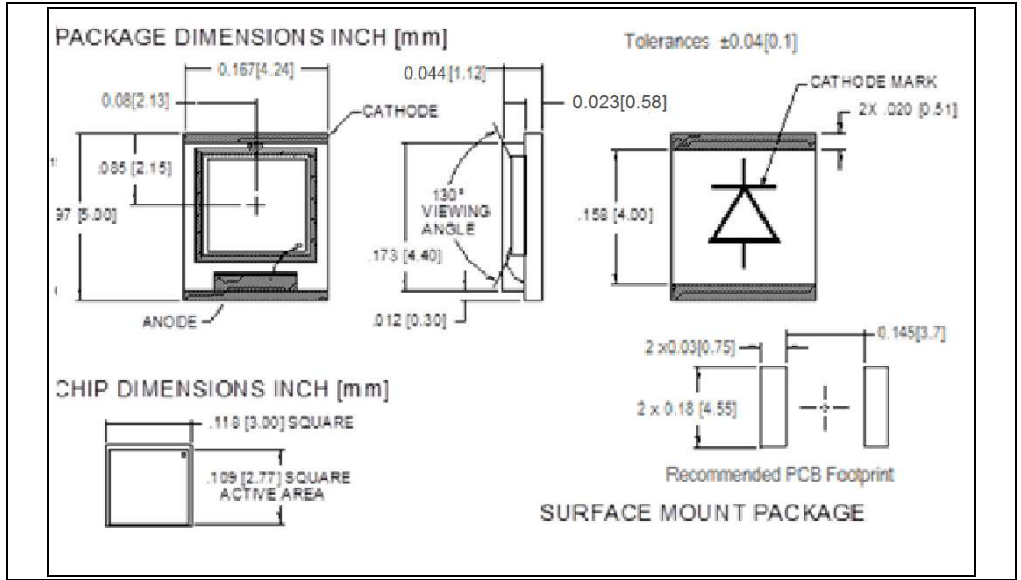
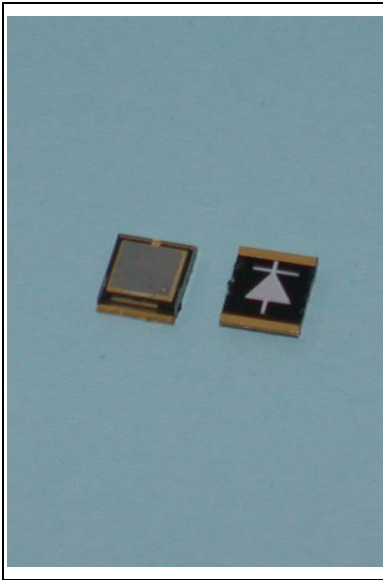
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DESCRIPTION

The **PDB-C171SM** is a blue enhanced PIN silicon photodiode ideal for high speed photoconductive or photovoltaic applications assembled in a compact surface mount package. SMD package classified as a sensitivity level 4.

FEATURES

- Surface Mount
- Photoconductive
- High Speed
- Low cost

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Photointerrupters
- Oximeter sensors
- Barcode
- Glucometers



ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS	
Reverse Voltage	-	- 60	V	$T_a = 23^{\circ}\text{C}$ UNLESS OTHERWISE NOTED
Storage Temperature	-40	- +100	$^{\circ}\text{C}$	-
Operating Temperature	-40	to +80	$^{\circ}\text{C}$	-
Soldering Temperature	-	- +260	$^{\circ}\text{C}$	-
Wavelength Range	400	- 1050	Nm	
Maximum Power Dissipation	-	- 215	MW	

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

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.

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Breakdown Voltage	I _{bias} = 10 μA	60	-	-	V
Responsivity	λ = 900 nm	0.60	0.68	-	A/W
Responsivity	λ = 1050 nm	-	0.3	-	A/W
Dark Current	V _{bias} = 10V	-	2	30	nA
Capacitance	V _{bias} = 3V; f = 1 MHz	-	25	-	pF
Rise Time (1KΩ load)	V _{bias} = 10V; λ = 820 nm	-	100	-	ns
Noise Equivalent Power	λ = 950 nm V _r = 10V	-	4X10 ⁻¹⁴	-	W/√Hz

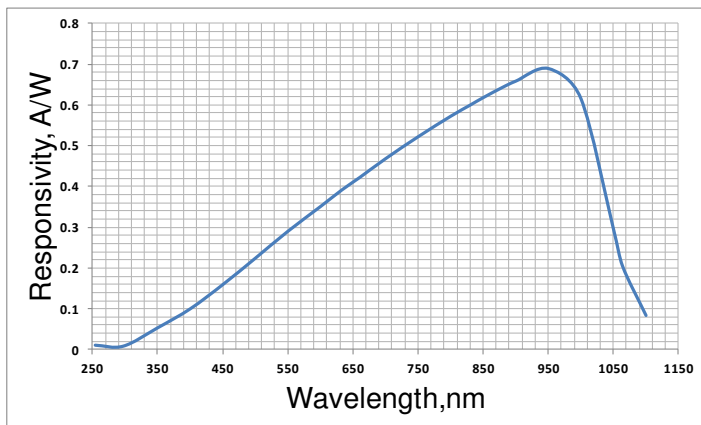
**Response time of 10% to 90% is specified at 820nm wavelength light.

SOLDERING

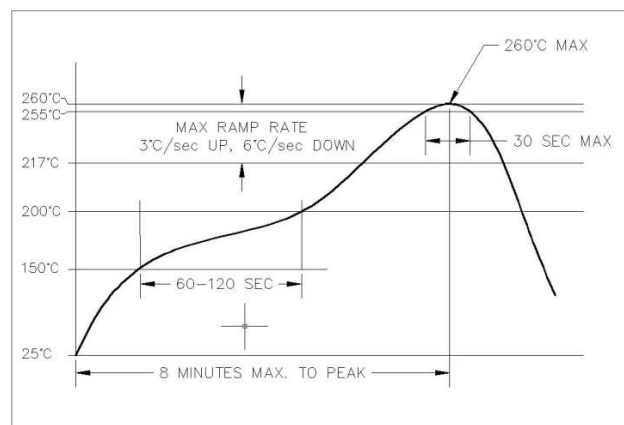
	RECOMMENDATION	
Wave	Not Advised	
IR Oven Reflow	Allowed	See reflow profile.
Forced Convection Reflow	Recommended	See reflow profile.
Convection Reflow	Recommended	See reflow profile.
Vapor Phase Reflow	Recommended	See reflow profile.
Manual	Allowed	260°C for 3 seconds max.
Moisture Sensitivity Level	4	J-STD-033

TYPICAL PERFORMANCE

SPECTRAL RESPONSE



REFLOW PROFILE



NOISE vs TEMPRATURE

