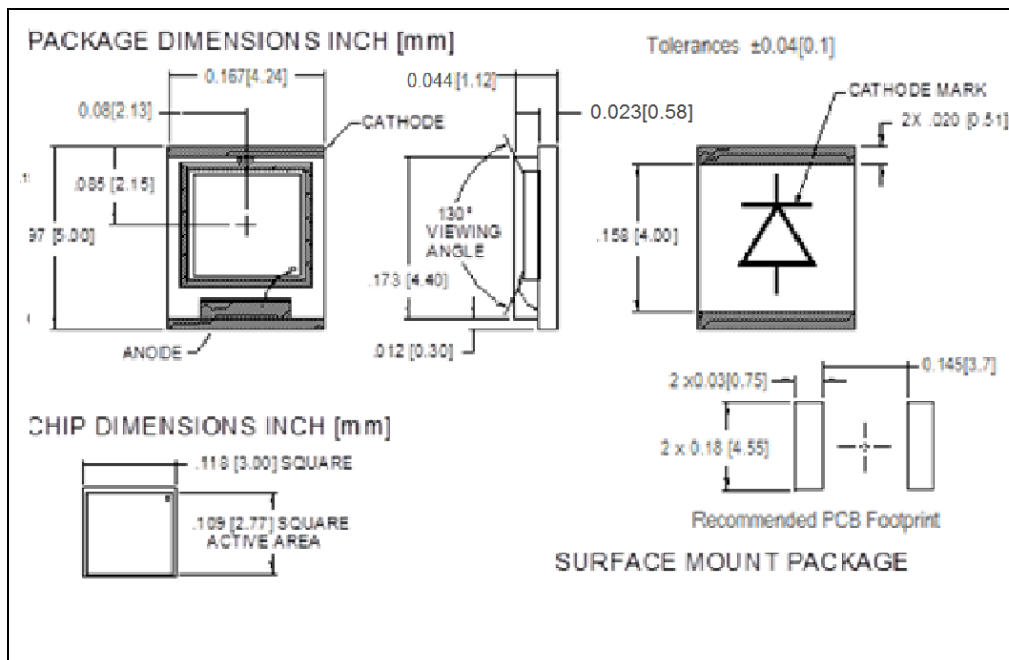
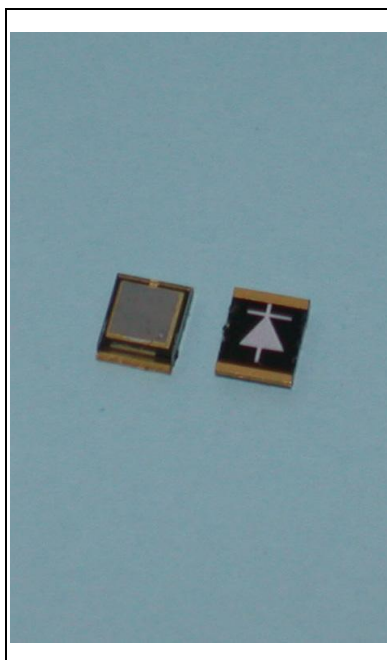




DESCRIPTION

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.

FEATURES

- Surface mount
- Photoconductive
- Low cost
- High speed



RELIABILITY

Contact API for recommendations on specific test conditions and procedures.

APPLICATIONS

- Photointerrupters
- Oximeter sensors
- Barcode
- Glucometers

ABSOLUTE MAXIMUM RATINGS

PARAMETERS	MIN	MAX	UNIT
Reverse Voltage	-	60	V
Operating Temperature	-40	+80	°C
Storage Temperature	-40	+100	°C
Soldering Temperature	-	+260	°C
Wavelength Range	400	1050	nm
Maximum Power Dissipation	-	215	mW

$T_a = 23^\circ\text{C}$ unless noted otherwise

ELECTRO-OPTICAL CHARACTERISTICS RATING

$T_a = 23^\circ\text{C}$ unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Breakdown Voltage	$I_{\text{bias}} = 10 \mu\text{A}$	60	-	-	V
Responsivity	$\lambda = 900 \text{ nm}$	0.60	0.68	-	A/W
Responsivity	$\lambda = 1050 \text{ nm}$	-	0.3	-	A/W
Dark Current	$V_{\text{bias}} = 10\text{V}$	-	2	30	nA
Capacitance	$V_{\text{bias}} = 3\text{V}; f = 1 \text{ MHz}$	-	25	-	pF
Rise Time (1K Ω load)	$V_{\text{bias}} = 10\text{V}; \lambda = 820 \text{ nm}$	-	100	-	ns
Noise Equivalent Power	$\lambda = 950 \text{ nm } V_r = 10\text{V}$	-	4×10^{-14}	-	fW/ $\sqrt{\text{Hz}}$

□

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

