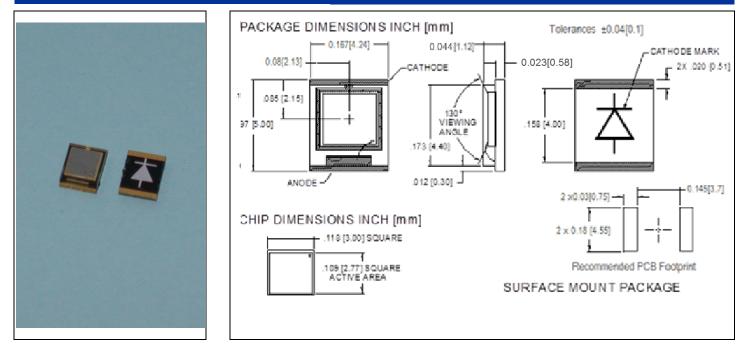
SMT Photodiode PDB-C171SM

Precision – Control – Results



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

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

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

Information in this technical datasheet is believed to

be correct and reliable. However, no responsibility is

ABSOLUTE MAXIMUM RATINGS

assumed for possible inaccuracies or omission.

Specifications are subject to change without notice.

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SMT Photodiode PDB-C171SM

Precision – Control – Results

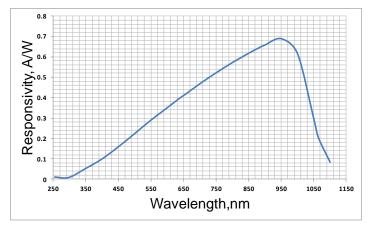
ELECTRO-OPTICAL CHARACTERISTICS RATING

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

PARAMETER	TEST CONDITIONS	MIN	ТҮР	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	$V_{\text{bias}} = 3V; f = 1 \text{ MHz}$	-	25	-	pF
Rise Time (1K Ω load)	$V_{\text{bias}} = 10 \text{V}; \lambda = 820$ nm	-	100	-	ns
Noise Equivalent Power	λ= 950 nm Vr=10V	-	4X10 ⁻¹⁴	-	fW/√Hz
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TYPICAL PERFORMANCE





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