

### FEATURES

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

### DESCRIPTION

The **PDB-C139F** is a blue enhanced PIN silicon photodiode in a photoconductive mode with a daylight filter, packaged in a T1 3/4 plastic package.

### APPLICATIONS

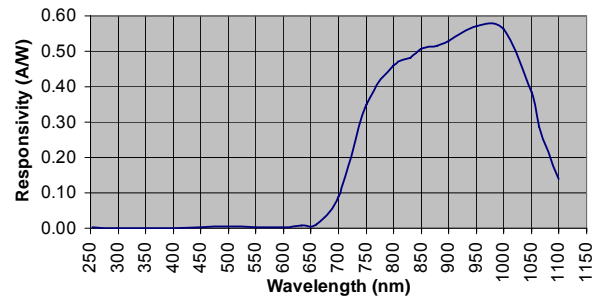
- Smoke detectors
- Light pen detectors
- TV & VCR remotes
- Bar code detectors

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		50	V
T <sub>STG</sub>	Storage Temperature	-40	+100	°C
T <sub>O</sub>	Operating Temperature	-40	+80	°C
T <sub>S</sub>	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 <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	45	67		μA
I <sub>D</sub>	Dark Current	V <sub>R</sub> = 10 V		5	30	nA
R <sub>SH</sub>	Shunt Resistance	V <sub>R</sub> = 10 mV	100	500		MΩ
C <sub>J</sub>	Junction Capacitance	V <sub>R</sub> = 10 V, f = 1 MHz		18	25	pF
λ range	Spectral Application Range	Spot Scan	700		1100	nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	15	25		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10V @ λ = Peak		2.4x10 <sup>-14</sup>		W/√Hz
t <sub>r</sub>	Response Time	RL = 50 Ω, V <sub>R</sub> = 50 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.