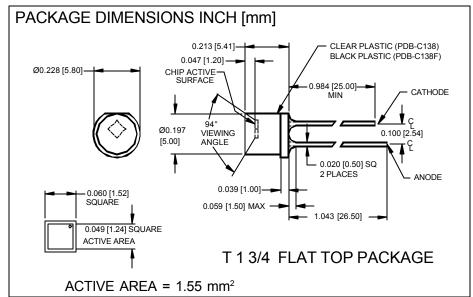
PHOTONIC Silicon Photodiode, Blue Enhanced Photoconductive **DETECTORS INC.** Type PDB-C136, with daylight filter Type PDB-C136F





FEATURES

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

DESCRIPTION: The **PDB-C136** detector is a 1.55 mm² planar PIN photodiode packaged in a T 1 3/4, flat top, water clear plastic housing. Designed for high speed, low capacitance, photoconductive applications. The **PDB-C136F** includes a daylight filter.

APPLICATIONS

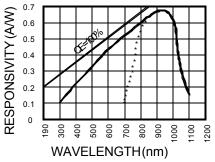
- Smoke detectors
- Light pen detectors
- Fiber optics
- Bar code detectors

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS
$V_{\mathtt{BR}}$	Reverse Voltage		100	V
T_{STG}	Storage Temperature	-40	+100	∞
T _o	Operating Temperature Range	-40	+80	∞
T _s	Soldering Temperature*		+260	∞
IL	Light Current		500	mA

^{*1/16} inch from case for 3 secs max

SPECTRALRESPONSE



ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
l _{sc}	Short Circuit Current	H = 100 fc, 2850 K	20	27		μΑ
I _D	Dark Current	H = 0, V _R = 10 V		2	30	nA
R _{sH}	Shunt Resistance	$H = 0, V_R = 10 \text{ mV}$.5	2		GΩ
TCR _{SH}	RSH Temp. Coefficient	H = 0, V _R = 10 mV		-8		%/℃
C _J	Junction Capacitance	H = 0, V _R = 10 V*		6	10	pF
λrange	Spectral Application Range	(without daylight filter)**	400		1100	nm
λр	Spectral Response - Peak			950		nm
V _{BR}	Breakdown Voltage	I = 10 μA	50	100		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		1.8x10 ⁻¹³		W/ √ Hz
tr	Response Time	RL = 1 K Ω V _R = 50 V		10		nS