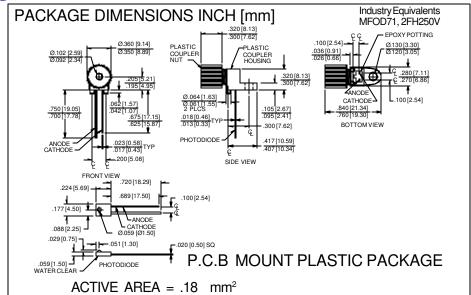
PHOTONIC DETECTORS INC.

Silicon Photodiode, Photoconductive Fiber Optic Detector Type PDB-C505





FEATURES

- High speed, 50 Mhz
- Low cost, PCB mount
- Includes connector
- Light tight package

DESCRIPTION

The PDB-C505 is a high speed, PIN photodiode packaged in a low cost P.C.B mount plastic housing. Designed to interface with 1000 micron core plastic fiber for short haul fiber optic systems.Ideally matched with

PDI-E521 IR or PDR-E526 red emitter.

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
VBR	Reverse Voltage		100	V
P _D	Total Power Dissipation		200	mW
То	Operating Temperature Range	-40	+80	∘C
Ts	Soldering Temperature*		+260	∘C
IL	Light Current		500	mA

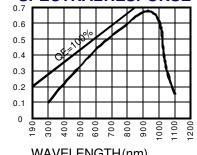
^{*1/16} inch from case for 3 secs max

APPLICATIONS

- High isolation interconnects
- Medical electronics
- Consumer electronics
- Micro processor

RESPONSIVITY (A/W)

SPECTRALRESPONSE



WAVELENGTH(nm)

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current	H = 1000 lux, 2850 K		10		μιA
ΙD	Dark Current	$H = 0, V_R = 10 V$.20	20	nA
RsH	Shunt Resistance	$H = 0, V_R = 10 \text{ mV}$	500	1000		MΩ
TC Rsh	RSH Temp. Coefficient	$H = 0, V_R = 10 \text{ mV}$		-10		%/°C
C₁	Junction Capacitance	$H = 0, V_R = 10 V^{**}$		5		рF
λrange	Spectral Application Range	Flooded D.C.	400		1100	nm
λр	Spectral Response - Peak	Spot Scan		950		nm
V _{BR}	Breakdown Voltage	I = 10 µuA	50	100		V
NEP	Noise Equivalent Power	V _R = 10 V @ 850 nm		6x10 ⁻¹⁵		W/√ _{Hz}
tr	Response Time	$RL = 1 K\Omega V_R = 10 V$		6		nS