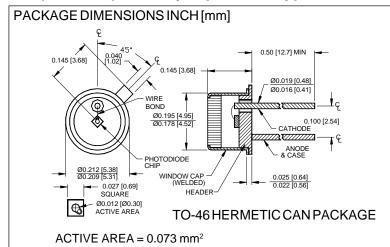
# Silicon Photodiode, Blue Enhanced Photoconductive (MRD 510) Industry Equivalent Type PDB-C120





## **FEATURES**

- High speed
- Low capacitance
- Blue enhanced
- Low dark current

### DESCRIPTION

The PDB-C120 is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-46 metal can with a flat window.

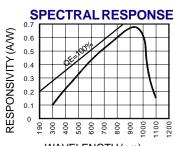
#### **APPLICATIONS**

- Fiber optic
- Laser detection
- Light demodulation
- Matched to I.R. LEDs

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

SYMBOL	PARAMETER	MIN	MAX	UNITS	
$V_{BR}$	Reverse Voltage		200	V	
T <sub>STG</sub>	Storage Temperature	-65	+150	∘C	
T <sub>o</sub>	Operating Temperature Range	-55	+125	∘C	
T <sub>s</sub>	Soldering Temperature*		+240	∘C	
I <sub>L</sub>	Light Current		0.5	mA	

<sup>\*1/16</sup> inch from case for 3 secs max



WAVELENGTH (nm)

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>sc</sub>	Short Circuit Current	H = 100 fc, 2850 K	1.2	1.5		$\mu$ A
I <sub>D</sub>	Dark Current	$H = 0, V_R = 10 V$		0.5	2.0	nA
R <sub>SH</sub>	Shunt Resistance	$H = 0, V_R = 10 \text{ mV}$	400	500		MΩ
TCR <sub>SH</sub>	RSH Temp. Coefficient	$H = 0, V_R = 10 \text{ mV}$		-8		%/°C
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		1		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λр	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	100	150		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		9.0x10 <sup>-15</sup>		W/ √Hz
tr	Response Time	$RL = 1 K\Omega V_R = 50 V$		1.0		nS