

# PDB-C613-2

## Solderable Die Silicon Photodiode

The PDB-C613-2 is a 88mm<sup>2</sup> RED enhanced solderable die silicon photodiode designed for applications requiring a large active area photodiode with low capacitance and high-speed response time. The device is available with and without flying 159mm long leads.

### Applications

Optical Encoder

Position Sensor

Industrial Controls

Instrumentation

### Features

High Quantum Efficiency

Photoconductive

Red Enhanced

Large Active Area

Low Capacitance

High Speed

Available with and without leads

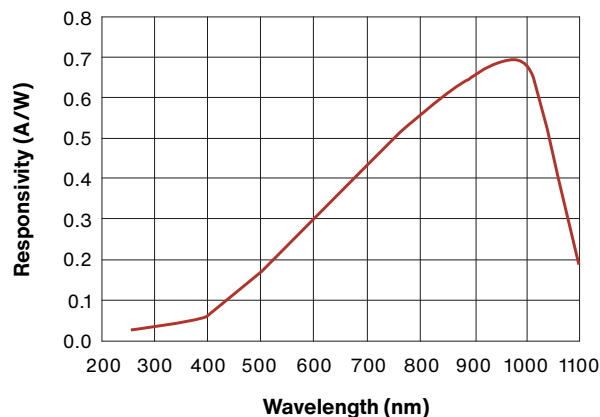
## Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Wavelength Range	-	350	1100	nm
Reverse Voltage	$V_R$	-	50	V
Operating Temperature	$T_{OP}$	-40	+100	°C
Storage Temperature	$T_{STG}$	-40	+125	°C
Package	Wire on Die			

## Typical Electro-Optical Specifications at $T_A=23\text{ °C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Short Circuit Current	$H=100fc$ , 2850K	$I_{SC}$	0.70	1.0	-	mA
Dark Current	$V_R=5V$	$I_D$	-	90	180	nA
Shunt Resistance	$V_R=10mV$	$R_{SH}$	0.5	1	-	$M\Omega$
Junction Capacitance	$V_R=5V$ ; $f=1MHz$	$C_J$	-	350	-	pF
Breakdown Voltage	$I=10\mu A$	$V_{BD}$	25	50	-	V
Noise Equivalent Power	$V_R=0V@\lambda=Peak$	NEP	-	$3 \times 10^{-13}$	-	$W/\sqrt{Hz}$
Response Time (10%-90%)	$RL=1K\Omega$ , $V_R=50V$ , $R\lambda=660nm$	$T_R$	-	50	-	nS

## Spectral Response



## Mechanical Specifications

Units are in inches [mm]

