

PDB-C612-2

Solderable Die Silicon Photodiode

The PDB-C612-2 is a 90mm² 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 165mm 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

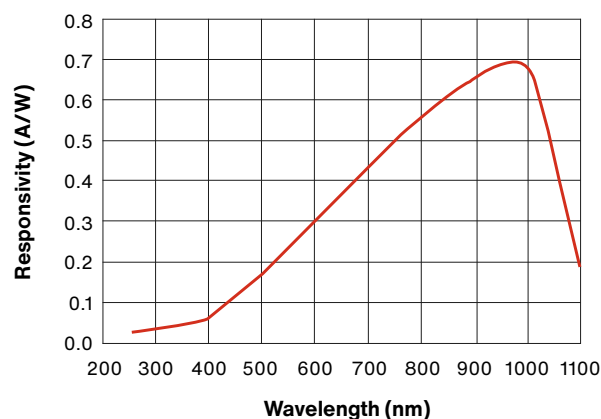
Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
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 $T_A=23\text{ }^\circ\text{C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Short Circuit Current	$H=100fc, 2850K$	I_{SC}	500	680	-	μA
Dark Current	$V_R=5V$	I_D	-	1	50	nA
Shunt Resistance	$V_R=10mV$	R_{SH}	5	100	-	$M\Omega$
Junction Capacitance	$V_R=5V; f=1MHz$	C_J	-	300	-	pF
Breakdown Voltage	$I=10\mu A$	V_{BD}	10	50	-	V
Noise Equivalent Power	$V_R=0V@ \lambda=Peak$	NEP	-	2×10^{-14}	5×10^{-13}	W / \sqrt{Hz}
Response Time (10%-90%)	$RL=1K\Omega, V_R=50V, \lambda=660nm$	T_R	-	45	-	nS

Spectral Response



Mechanical Specifications

Units are in inches [mm]

