



PDB-C203

Quadrant Silicon Photodiode

The PDB-C203 is a quadrant silicon photodiode used for nulling, centering, or measuring small positional changes packaged in a hermetic TO-5 metal package.

Applications

Emitter Alignment
Position Sensing
Medical and Industrial

Features

Low Noise
Red Enhanced
High Speed
Low Dark Current

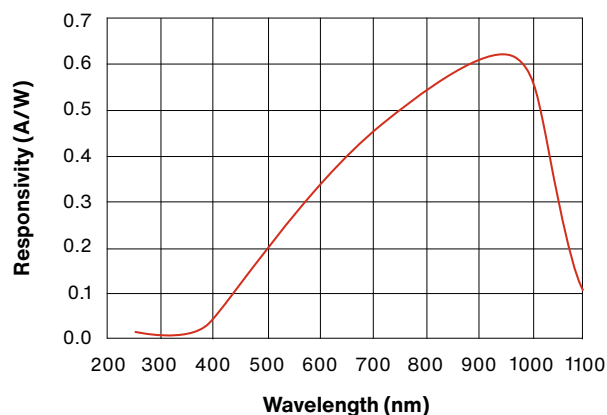
Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Reverse Voltage	V_R	-	100	V
Operating Temperature	T_{OP}	-55	+150	°C
Storage Temperature	T_{STG}	-40	+125	°C

Typical Electro-Optical Specifications at $T_A=23\text{ }^\circ\text{C}$ (Per Element)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Active Area	-	A.A.	-	1.6	-	mm ²
Gap Between Elements	-	-	-	0.127	-	mm
Spectral Range	-	λ	350	-	1100	nm
Capacitance	$V_R=10\text{V}; f=1\text{MHz}$	C_J	-	8	15	pF
Dark Current	$V_R=5\text{V}$	I_D	-	0.5	15	nA
Shunt Resistance	$V_R=10\text{mV}$	R_{SH}	250	500	-	M Ω
Noise Equivalent Power	$V_R=0\text{V}$ @ $\lambda=\text{Peak}$	NEP	-	3.3×10^{-14}	-	W/ $\sqrt{\text{Hz}}$
Short Circuit Current	H=100 fc, 2850K	I_{SC}	20	25	-	μA
Response Time	$R_L=50\text{K}\Omega, V_R=10\text{V}$	T_R	-	15	-	nS

Spectral Response



Mechanical Specifications

Units are in inches (mm)

