

FEATURES

Red enhanced

- Photoconductive

DESCRIPTION

The PDB-C609-3 is a silicon red enhanced solderable photodiode designed for low capacitance

• High quantum efficiency and high speed for photoconductive applications.

APPLICATIONS

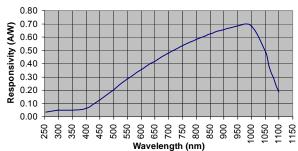
- · Optical encoder
- · Position sensor
- Industrial controls
- Instrumentation

ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-40	+125	°C
To	Operating Temperature	-40	+100	°C
Ts	Soldering Temperature*		+224	°C

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

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	490	545		μ A
I _D	Dark Current	V _R = 5 V		30	75	nA
R_{SH}	Shunt Resistance	V _R = 10 mV	3	10		Ω M
CJ	Junction Capacitance	$V_R = 5 V$, $f = 1 MHz$		240		pF
λ range	Spectral Application Range	Spot Scan	350		1100	nm
V_{BR}	Breakdown Voltage	I = 10 μA	25	50		V
NEP	Noise Equivalent Power	V_R = 0V @ λ = Peak		4x10 ⁻¹³		W/ √ _{Hz}
t _r	Response Time	$RL = 1K\Omega, V_R = 5V$		30		nS

^{**}Response time of 10% to 90% is specified at 660nm wavelength light.

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