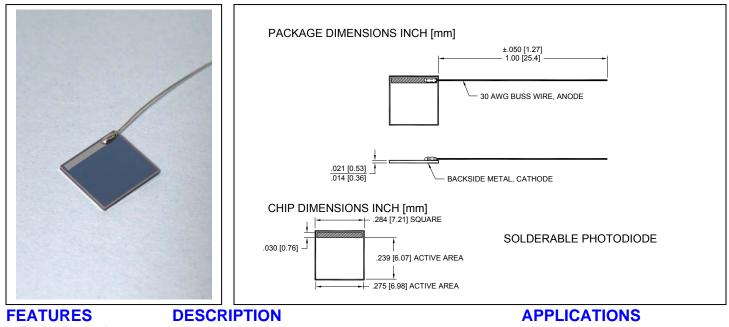


## Solderable Silicon Photodiodes PDB-C609-3



- Red enhancedPhotoconductive
- The PDB-C609-3 is a silicon red enhanced
- Photoconductive solderable photodiode designed for low capacitance
  High quantum efficiency and high speed for photoconductive applications.
- Optical encoderPosition sensor

0.80

**Germinal Contraction Germinal Contraction** 

0.10 0.00

> 250 300

400 450 500 550

350

- Position sensor
- Industrial controlsInstrumentation

## SPECTRAL RESPONSE

Wavelength (nm)

600 650 770 750 800 800 900 950 950 950 1100

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		75	V
T <sub>STG</sub>	Storage Temperature	-40	+125	°C
To	Operating Temperature	-40	+100	°C
Ts	Soldering Temperature*		+224	°C

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

\* 1/16 inch from case for 3 seconds max.

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	490	545		μA
I <sub>D</sub>	Dark Current	$V_R = 5 V$		30	75	nA
R <sub>SH</sub>	Shunt Resistance	V <sub>R</sub> = 10 mV	3	10		MΩ
CJ	Junction Capacitance	$V_R = 5 V$ , $f = 1 MHz$		240		pF
$\lambda$ range	Spectral Application Range	Spot Scan	350		1100	nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	25	50		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 0V @ $\lambda$ = Peak		4x10 <sup>-13</sup>		W/ $\sqrt{_{\rm Hz}}$
t <sub>r</sub>	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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