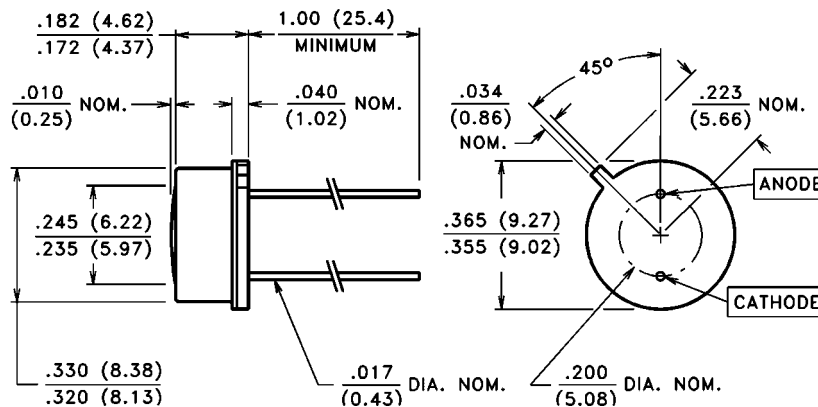




## PACKAGE DIMENSIONS inch (mm)



CASE 14 TO-5 HERMETIC  
CHIP ACTIVE AREA: .023 in<sup>2</sup> (14.8 mm<sup>2</sup>)

## PRODUCT DESCRIPTION

Planar silicon photodiode in a “flat” window, dual lead TO-5 package. The package incorporates an infrared rejection filter. Cathode is common to the case. These diodes have very high shunt resistance and have good blue response.

## ABSOLUTE MAXIMUM RATINGS

Storage Temperature: -40°C to 110°C  
Operating Temperature: -40°C to 110°C

**RoHS Compliant**



## ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTB curves, pages 21-22)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTB5051BH			UNITS
			Min.	Typ.	Max.	
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	8	13		μA
TC I <sub>SC</sub>	I <sub>SC</sub> Temperature Coefficient	2850 K		.02	.08	%/°C
V <sub>OC</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		420		mV
TC V <sub>OC</sub>	V <sub>OC</sub> Temperature Coefficient	2850 K		-2.0		mV/°C
I <sub>D</sub>	Dark Current	H = 0, VR = 2.0 V			250	pA
R <sub>SH</sub>	Shunt Resistance	H = 0, V = 10 mV		.56		GΩ
TC R <sub>SH</sub>	R <sub>SH</sub> Temperature Coefficient	H = 0, V = 10 mV		-8.0		%/°C
C <sub>J</sub>	Junction Capacitance	H = 0, V = 0		3.0		nF
λ <sub>range</sub>	Spectral Application Range		330		720	nm
λ <sub>p</sub>	Spectral Response - Peak			580		nm
V <sub>BR</sub>	Breakdown Voltage		2	40		V
θ <sub>1/2</sub>	Angular Resp. - 50% Resp. Pt.			±50		Degrees
NEP	Noise Equivalent Power			3.7 x 10 <sup>-14</sup> (Typ.)		W/√Hz
D*	Specific Detectivity			1.0 x 10 <sup>13</sup> (Typ.)		cm√Hz/W