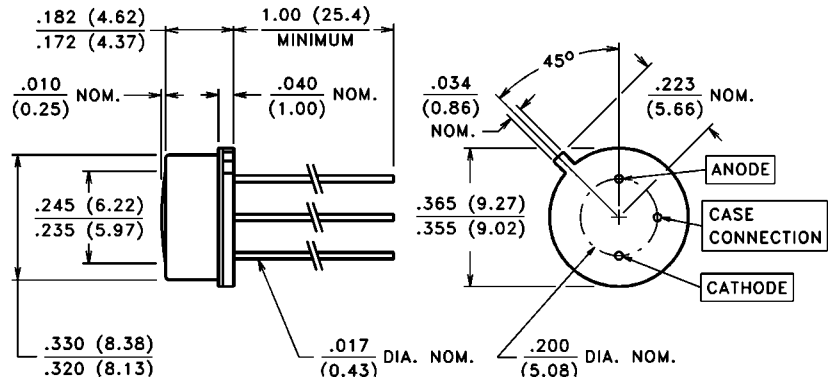


## PACKAGE DIMENSIONS inch (mm)



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

## PRODUCT DESCRIPTION

Planar silicon photodiode in a three lead TO-5 package with a UV transmitting "flat" window. Chip is isolated from the case. The third lead allows case to be grounded. 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

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTB5051UVJ			UNITS
			Min.	Typ.	Max.	
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	85	130		μA
TC I <sub>SC</sub>	I <sub>SC</sub> Temperature Coefficient	2850 K		.12	.23	%/°C
V <sub>OC</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		490		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
S <sub>R</sub>	Sensitivity	365 nm		0.1		A/W
S <sub>R</sub>	Sensitivity	220 nm	.038			A/W
λ <sub>range</sub>	Spectral Application Range		200		1100	nm
λ <sub>p</sub>	Spectral Response - Peak			920		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			2.1 x 10 <sup>-14</sup> (Typ.)		W / √Hz
D*	Specific Detectivity			1.8 x 10 <sup>13</sup> (Typ.)		cm√Hz / W