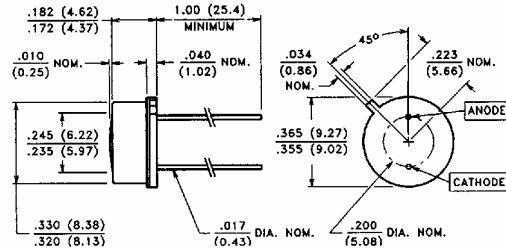


PACKAGE DIMENSIONS inch (mm)



CASE 14 TO-5 HERMETIC  
CHIP ACTIVE AREA: .008 in<sup>2</sup> (5.16 mm<sup>2</sup>)

PRODUCT DESCRIPTION

Planar silicon photodiode in a "flat" window, dual lead TO-5 package. Cathode is common to the case. These diodes have very high shunt resistance and 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 12-13)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTB5040			VTB5041						UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I <sub>sc</sub>	Short Circuit Current	H = 100 fc, 2850 K	35	45		35	45					μA
TC I <sub>sc</sub>	I <sub>sc</sub> Temp. Coefficient	2850 K		.12	.23		.12	.23				% / °C
V <sub>oc</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		490			490					mV
TC V <sub>oc</sub>	V <sub>oc</sub> Temp. Coefficient	2850 K		-2.0			-2.0					mV / °C
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 2.0 V			2000			100				pA
R <sub>SH</sub>	Shunt Resistance	H = 0, V = 10 mV		.07			1.4					GΩ
TC R <sub>SH</sub>	R <sub>SH</sub> Temp. Coefficient	H = 0, V = 10 mV		-8.0			-8.0					% / °C
C <sub>J</sub>	Junction Capacitance	H = 0, V = 0		1.0			1.0					nF
S <sub>R</sub>	Sensitivity	365 nm		0.1			0.1					A/W
λ <sub>range</sub>	Spectral Application Range		320		1100	320		1100				nm
λ <sub>p</sub>	Spectral Response - Peak			920			920					nm
V <sub>BR</sub>	Breakdown Voltage		2	40		2	40					V
θ <sub>1/2</sub>	Ang. Resp. - 50% Resp. Pt.			±45			±45					Degrees
NEP	Noise Equivalent Power			5.9 x 10 <sup>-14</sup> (Typ.)			1.3 x 10 <sup>-14</sup> (Typ.)					W/√Hz
D*	Specific Detectivity			3.9 x 10 <sup>12</sup> (Typ.)			1.7 x 10 <sup>13</sup> (Typ.)					cm <sup>2</sup> /Hz/W