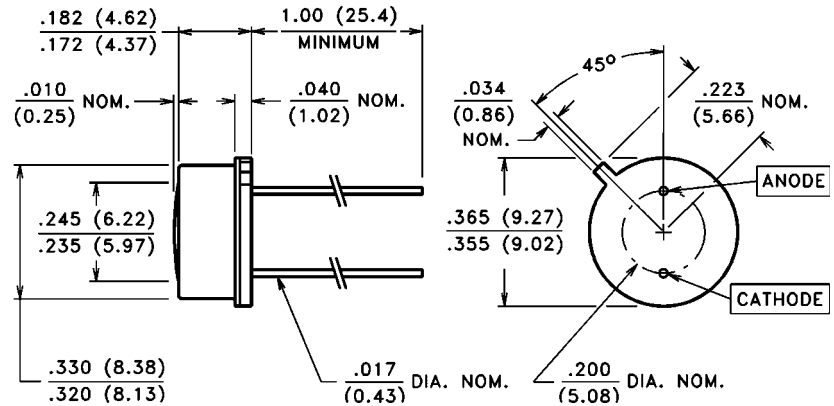




PACKAGE DIMENSIONS inch (mm)



CASE 14 TO-5 HERMETIC
CHIP ACTIVE AREA: $.023 \text{ in}^2$ (14.8 mm^2)

PRODUCT DESCRIPTION

Planar silicon photodiode in a dual lead TO-5 package with a UV transmitting "flat" window. Chip 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	VTB5051UVH			UNITS
			Min.	Typ.	Max.	
I_{SC}	Short Circuit Current	$H = 100 \text{ fc}, 2850 \text{ K}$	85	130		μA
TC I_{SC}	I_{SC} Temperature Coefficient	2850 K		.12	.23	$\% / ^\circ\text{C}$
V_{OC}	Open Circuit Voltage	$H = 100 \text{ fc}, 2850 \text{ K}$		490		mV
TC V_{OC}	V_{OC} Temperature Coefficient	2850 K		-2.0		$\text{mV} / ^\circ\text{C}$
I_D	Dark Current	$H = 0, V_R = 2.0 \text{ V}$			250	μA
R_{SH}	Shunt Resistance	$H = 0, V = 10 \text{ mV}$.56		$\text{G}\Omega$
TC R_{SH}	R_{SH} Temperature Coefficient	$H = 0, V = 10 \text{ mV}$		-8.0		$\% / ^\circ\text{C}$
C_J	Junction Capacitance	$H = 0, V = 0$		3.0		nF
S_R	Sensitivity	365 nm		0.1		A/W
S_R	Sensitivity	220 nm	.038			A/W
λ_{range}	Spectral Application Range		200		1100	nm
λ_p	Spectral Response - Peak			920		nm
V_{BR}	Breakdown Voltage		2	40		V
$\theta_{1/2}$	Angular Resp. - 50% Resp. Pt.			± 50		Degrees
NEP	Noise Equivalent Power			2.1×10^{-14} (Typ.)		$\text{W} / \sqrt{\text{Hz}}$
D^*	Specific Detectivity			1.8×10^{13} (Typ.)		$\text{cm} \sqrt{\text{Hz}} / \text{W}$