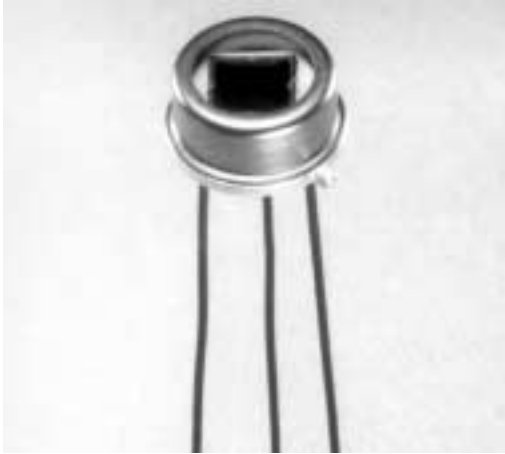
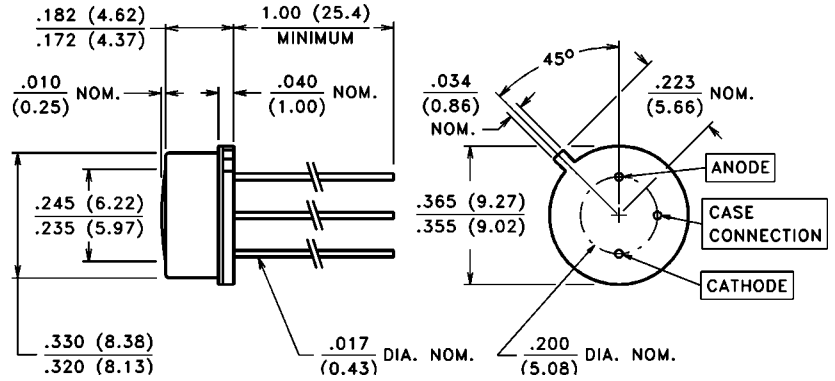


VTB Process Photodiodes

VTB5051UVJH



PACKAGE DIMENSIONS inch (mm)



CASE 14A TO-5 HERMETIC
CHIP ACTIVE AREA: .023 in² (14.8 mm²)

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

RoHS Compliant



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTB5051UVJH			UNITS
			Min.	Typ.	Max.	
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	85	130		μA
TC I _{SC}	I _{SC} Temperature Coefficient	2850 K		.12	.23	%/°C
V _{OC}	Open Circuit Voltage	H = 100 fc, 2850 K		490		mV
TC V _{OC}	V _{OC} Temperature Coefficient	2850 K		-2.0		mV/°C
I _D	Dark Current	H = 0, VR = 2.0 V			250	pA
R _{SH}	Shunt Resistance	H = 0, V = -10 mV		.56		GΩ
TC R _{SH}	R _{SH} Temperature Coefficient	H = 0, V = -10 mV		-8.0		%/°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
θ _{1/2}	Angular Resp. - 50% Resp. Pt.			±50		Degrees
NEP	Noise Equivalent Power			2.1 x 10 ⁻¹⁴ (Typ.)		W/√Hz
D*	Specific Detectivity			1.8 x 10 ¹³ (Typ.)		cm√Hz/W