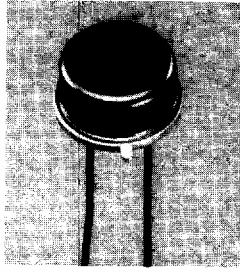
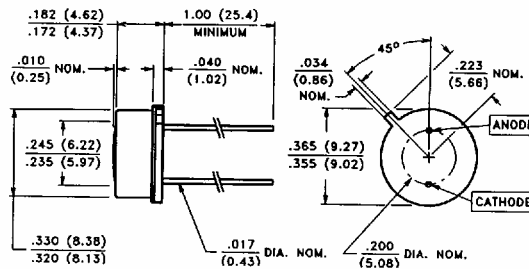


E G & G VACTEC



PACKAGE DIMENSIONS Inch (mm)



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 good blue response.

CASE 14 TO-5 HERMETIC

CHIP ACTIVE AREA: .008 in² (5.16 mm²)

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	VTB5040B			VTB5041B						UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I _{sc}	Short Circuit Current	H = 100 fc, 2850 K	3.0	4.5		3.0	4.5					μA
TC I _{sc}	I _{sc} Temp. Coefficient	2850 K		.02	.08		.02	.08				% / °C
V _{oc}	Open Circuit Voltage	H = 100 fc, 2850 K		420		420						mV
TC V _{oc}	V _{oc} Temp. Coefficient	2850 K		-2.0		-2.0						mV / °C
I _p	Dark Current	H = 0, V _R = 2.0 V			2000			100				pA
R _{SH}	Shunt Resistance	H = 0, V = 10 mV		.07		1.4						GΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V = 10 mV		-8.0		-8.0						% / °C
C _j	Junction Capacitance	H = 0, V = 0		1.0		1.0						nF
λ _{range}	Spectral Application Range		330		720	330		720				nm
λ _p	Spectral Response - Peak			580		580						nm
V _{BR}	Breakdown Voltage		2	40		2	40					V
θ _{1/2}	Ang. Resp. - 50% Resp. Pt.			±45		±45						Degrees
NEP	Noise Equivalent Power		1.1 x 10 ⁻¹³ (Typ.)			2.4 x 10 ⁻¹⁴ (Typ.)						W/√Hz
D*	Specific Detectivity		2.2 x 10 ¹² (Typ.)			9.7 x 10 ¹² (Typ.)						cm√Hz/W