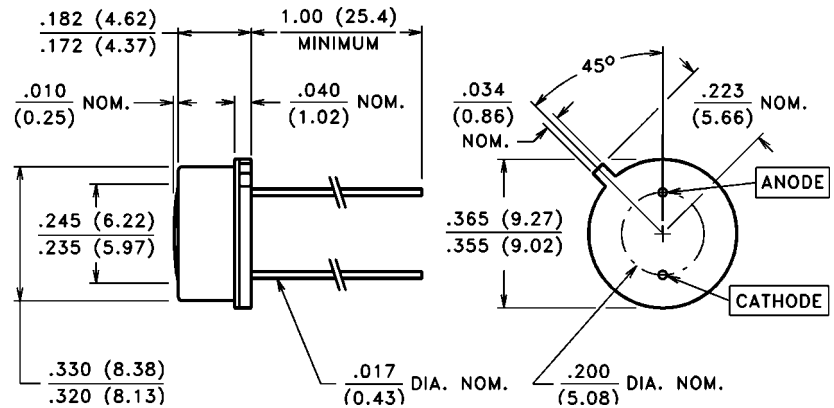




PACKAGE DIMENSIONS inch (mm)



CASE 14 TO-5 HERMETIC
CHIP ACTIVE AREA: .012 in² (7.45 mm²)

PRODUCT DESCRIPTION

Planar silicon photodiode in a "flat" window, dual lead TO-5 package. Cathode is common to the case. These diodes exhibit low dark current under reverse bias and fast speed of 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 VTP curves, page 46)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTP5050			UNITS
			Min.	Typ.	Max.	
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	40	70		μA
TC I _{SC}	I _{SC} Temperature Coefficient	2850 K		.20		%/°C
V _{OC}	Open Circuit Voltage	H = 100 fc, 2850 K		350		mV
TC V _{OC}	V _{OC} Temperature Coefficient	2850 K		-2.0		mV/°C
I _D	Dark Current	H = 0, V _R = 50 V			18	nA
R _{SH}	Shunt Resistance	H = 0, V = 10 mV		.25		GΩ
C _J	Junction Capacitance	H = 0, V = 15 V			24	pF
Re	Responsivity	940 nm		.05		A/(W/cm ²)
S _R	Sensitivity	@ Peak		.55		A/W
λ _{range}	Spectral Application Range		400		1150	nm
λ _p	Spectral Response - Peak			925		nm
V _{BR}	Breakdown Voltage		50	140		V
θ _{1/2}	Angular Resp. - 50% Resp. Pt.			±45		Degrees
NEP	Noise Equivalent Power			1.4 x 10 ⁻¹³ (Typ.)		W/√Hz
D*	Specific Detectivity			2.0 x 10 ¹² (Typ.)		cm√Hz / W