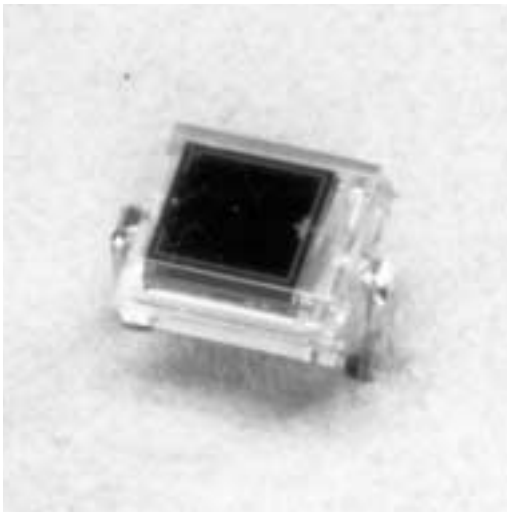
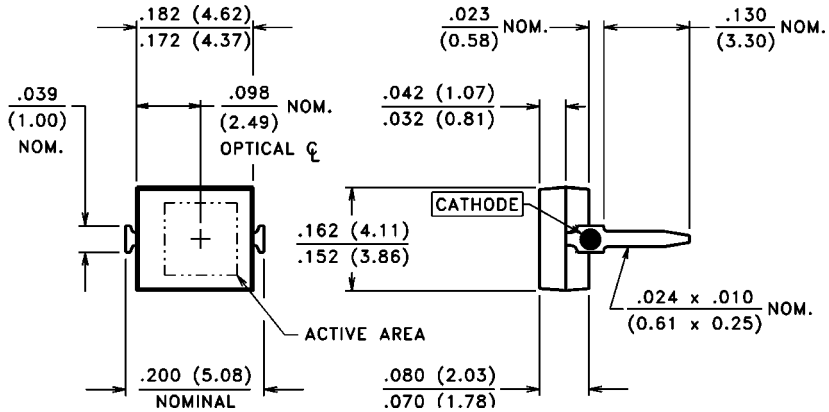
VTP Process Photodiodes

VTP8551H



PACKAGE DIMENSIONS inch (mm)



CASE 22 MINI-DIP
CHIP ACTIVE AREA: .012 in^2 (7.45 mm^2)

PRODUCT DESCRIPTION

Planar silicon photodiode in a transparent molded plastic package. Suitable for direct mounting to P.C.B. Arrays can be formed by positioning these devices side by side. These diodes exhibit low dark current under reverse bias and fast speed of response.

ABSOLUTE MAXIMUM RATINGS

Storage Temperature:	-40°C to 85°C
Operating Temperature:	-40°C to 85°C

RoHS Compliant

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTP curves, pages 45-46)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTP8551H			UNITS
			Min.	Typ.	Max.	
I_{SC}	Short Circuit Current	H = 100 fc, 2850 K	50	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, VR = 10 V			30	nA
R_{SH}	Shunt Resistance	H = 0, V = 10 mV		.15		GΩ
C_J	Junction Capacitance	H = 0, V = 3 V			50	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		33	140		V
$\theta_{1/2}$	Angular Resp. - 50% Resp. Pt.			±50		Degrees
NEP	Noise Equivalent Power			1.8×10^{-13} (Typ.)		$W/\sqrt{Hz}$
D*	Specific Detectivity			1.5×10^{12} (Typ.)		$cm\sqrt{Hz}/W$

PerkinElmer Optoelectronics, 22001 Dumberry, Vaudreuil, QC, Canada J7V 8P7 Phone: 877-734-6786 Fax: 450-424-3413 www.perkinelmer.com/opto