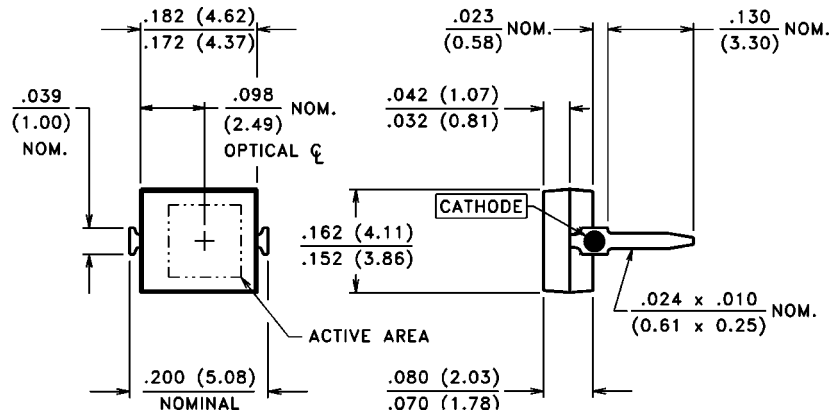


## PACKAGE DIMENSIONS inch (mm)



CASE 22 MINI-DIP  
CHIP ACTIVE AREA: .012 in<sup>2</sup> (7.45 mm<sup>2</sup>)

## PRODUCT DESCRIPTION

Planar silicon photodiode in a molded plastic, infrared transmitting package. Suitable for direct mounting to P.C.B. Arrays can be formed by positioning 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

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTP8651			UNITS
			Min.	Typ.	Max.	
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	35	55		μA
TC I <sub>SC</sub>	I <sub>SC</sub> Temperature Coefficient	2850 K		.24		%/°C
V <sub>OC</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		300		mV
TC V <sub>OC</sub>	V <sub>OC</sub> Temperature Coefficient	2850 K		-2.0		mV/°C
I <sub>D</sub>	Dark Current	H = 0, VR = 10 V			30	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V = 10 mV		.15		GΩ
C <sub>J</sub>	Junction Capacitance	H = 0, V = 3 V			50	pF
Re	Responsivity	940 nm		.045		A/(W/cm <sup>2</sup> )
S <sub>R</sub>	Sensitivity	@ Peak		.50		A/W
λ <sub>range</sub>	Spectral Application Range		725		1150	nm
λ <sub>p</sub>	Spectral Response - Peak			925		nm
V <sub>BR</sub>	Breakdown Voltage		33	140		V
θ <sub>1/2</sub>	Angular Resp. - 50% Resp. Pt.			±50		Degrees
NEP	Noise Equivalent Power			2.0 x 10 <sup>-13</sup> (Typ.)		W/√Hz
D*	Specific Detectivity			1.4 x 10 <sup>12</sup> (Typ.)		cm√Hz / W