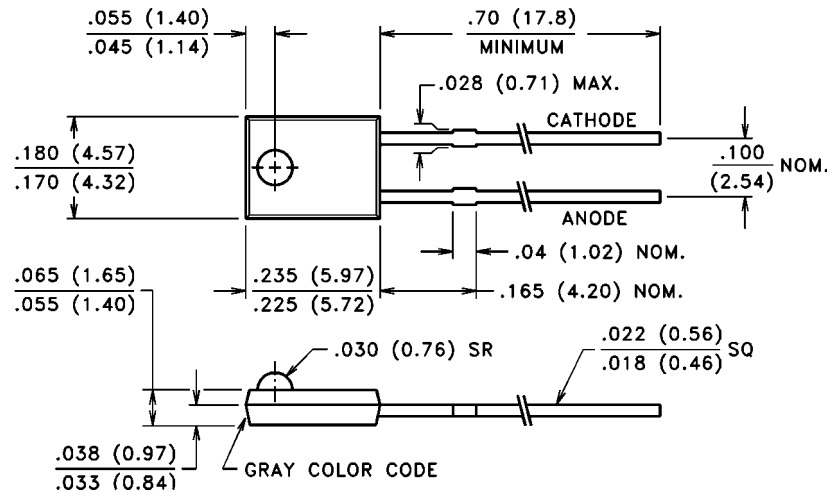




## PACKAGE DIMENSIONS inch (mm)



CASE 7 LATERAL  
CHIP ACTIVE AREA: .0011 in<sup>2</sup> (0.684 mm<sup>2</sup>)

## PRODUCT DESCRIPTION

Small area planar silicon photodiode in a clear, lensed sidelooking package. 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	VTP7110			UNITS
			Min.	Typ.	Max.	
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	6	9		μA
TC I <sub>SC</sub>	I <sub>SC</sub> Temperature Coefficient	2850 K		.20		%/°C
V <sub>OC</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		350		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			35	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V = 10 mV		7		GΩ
C <sub>J</sub>	Junction Capacitance	H = 0, V = 3 V			25	pF
Re	Responsivity	940 nm		.015		A/(W/cm <sup>2</sup> )
S <sub>R</sub>	Sensitivity	@ Peak		.55		A/W
λ <sub>range</sub>	Spectral Application Range		400		1150	nm
λ <sub>p</sub>	Spectral Response - Peak			925		nm
V <sub>BR</sub>	Breakdown Voltage		30	140		V
θ <sub>1/2</sub>	Angular Resp. - 50% Resp. Pt.			±58		Degrees
NEP	Noise Equivalent Power			1.9 x 10 <sup>-13</sup> (Typ.)		W/√Hz
D*	Specific Detectivity			5.3 x 10 <sup>11</sup> (Typ.)		cm√Hz / W