

FEATURES

- *Low dark current*
- *Fast response*
- *Infrared transmitting/visible blocking spectral range*
- *Low junction capacitance*

PRODUCT DESCRIPTION

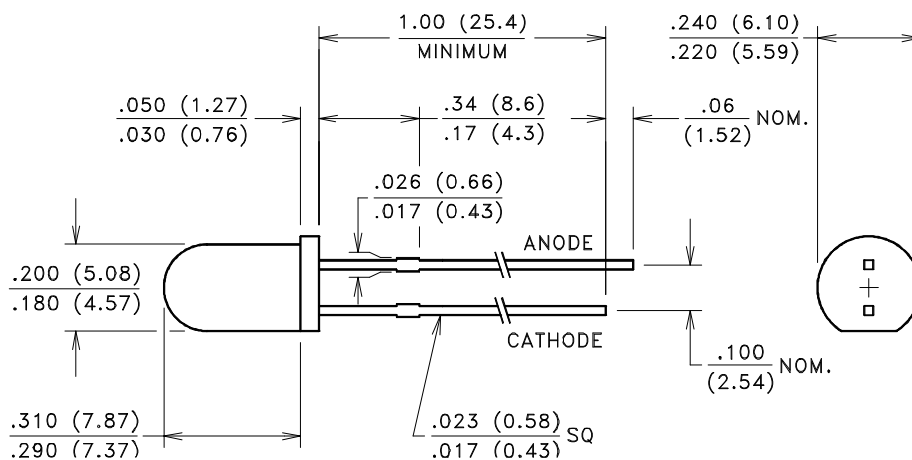
This VTP processed P on N planar silicon photodiode is housed in an IR transmitting, T-1 3/4 endlooking package.

These diodes exhibit low dark current under reverse bias. The VTP process offers low capacitance, resulting in fast response times.

ELECTRO-OPTICAL CHARACTERISTICS @ 25° C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS
SHORT CIRCUIT CURRENT @ 100 fc, 2850 K	I _{SC}	75			μA
RESPONSIVITY @ 880 nm	R _e	0.050	0.065		A/(W/cm ²)
DARK CURRENT @ V _R = 10 V	I _D			25	nA
REVERSE BREAKDOWN VOLTAGE @ 100 μA	V _{BR}	30			V
JUNCTION CAPACITANCE @ V _R = 0 V, 1 MHz	C _J			100	pF
ANGULAR RESPONSE (50% RESPONSE POINT)	θ _{1/2}		±20		Degrees

PACKAGE DIMENSIONS inch (mm)



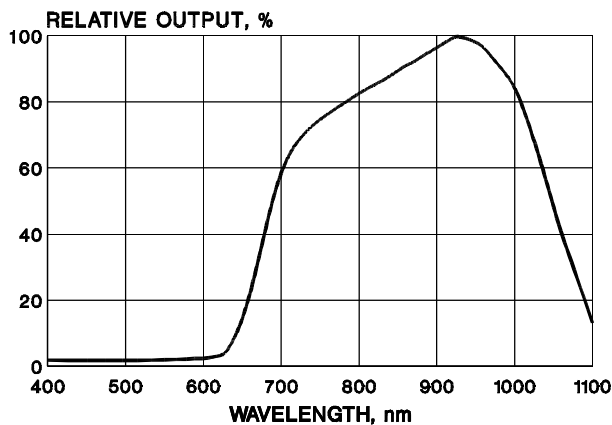
CASE 26 T-1 3/4
 CHIP SIZE: .075 x .075 (1.90 x 1.90)
 TOTAL EXPOSED AREA: .0036 in² (2.326 mm²)

GENERAL CHARACTERISTICS

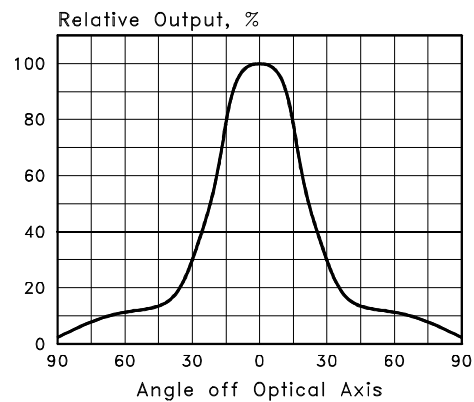
PARAMETER	SYMBOL	TYPICAL RATING	UNITS
OPEN CIRCUIT VOLTAGE @ 100 fc, 2850 K SOURCE	V_{OC}	420	mV
PEAK SPECTRAL RESPONSE @ 25°C	λ_{pk}	920	nm
SPECTRAL APPLICATION RANGE	λ_{range}	725 - 1100	nm
RISE/FALL TIMES @ 800 nm, $V_R = 10$ V, $R_L = 50 \Omega$	t_R / t_F	20	ns
TEMPERATURE COEFFICIENT			
SHORT CIRCUIT CURRENT @ 2850 K SOURCE	TC I_{SC}	+0.20	% / °C
DARK CURRENT @ $V_R = 10$ V	TC I_D	+11.0	% / °C
OPEN CIRCUIT VOLTAGE	TC V_{OC}	-2.0	mV / °C
TEMPERATURE RANGE, OPERATING & STORAGE	T_{AMB}	- 40 to +100	°C

TYPICAL CHARACTERISTIC CURVES

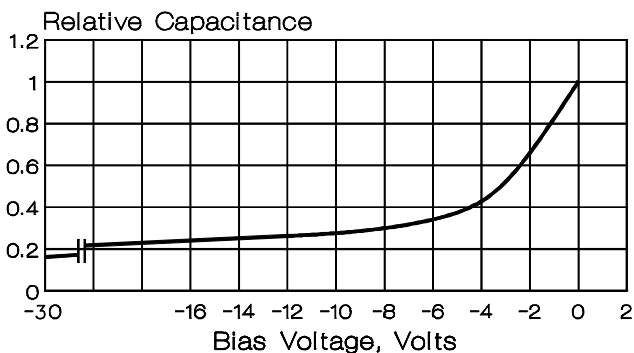
RELATIVE SPECTRAL RESPONSE



ANGULAR RESPONSE



RELATIVE JUNCTION CAPACITANCE vs BIAS VOLTAGE
(REFERRED TO ZERO BIAS)



Specifications subject to change without prior notice. Information supplied by Excelitas Technologies is believed to be reliable, however, no responsibility is assumed for possible inaccuracies or omissions. The user should determine the suitability of this product in his own application. No patent rights are granted to any devices or circuits described herein.