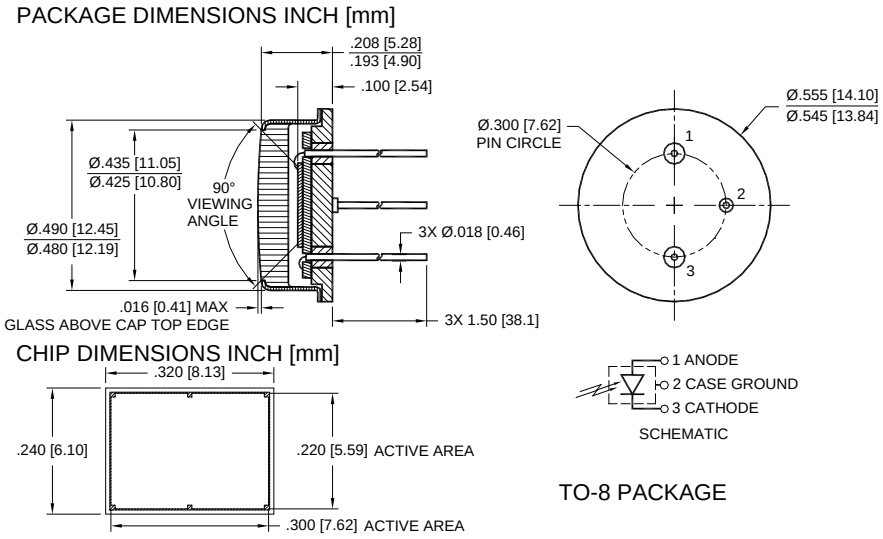
Red Enhanced Ultra Low Capacitance Silicon Photodiode

SD290-11-31-241

WWW.LUNAINC.COM — **Precision – Control – Results**



DESCRIPTION

The **SD 290-11-31-241** is an ultra low capacitance silicon PIN photodiode, red enhanced, packaged in a leaded hermetic TO-8 metal package.

FEATURES

- Low Noise
- Red Enhanced
- High Shunt Resistance
- High Response

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Military
- Industrial
- Medical

RoHS

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	75	V	T_a = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature*	-	-	+240	°C	-

* 1/16 inch from case for 3 seconds max.

REV 01-04-16

Luna Optoelectronics, 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935

OPTO-ELECTRICAL PARAMETERS

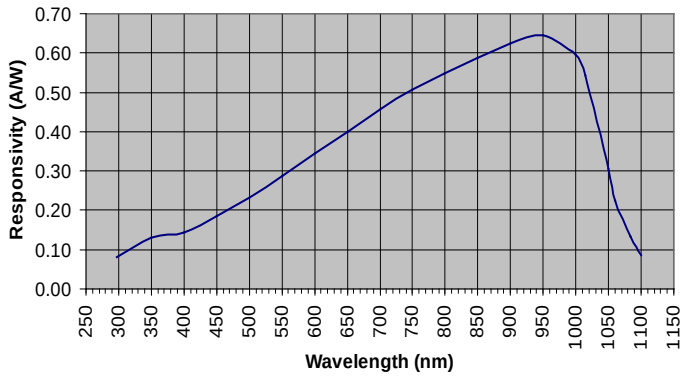
T_a = 23°C UNLESS OTHERWISE NOTED

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	V_R = 50V	-	110	425	nA
Junction Capacitance	V_R = 0V, *f* = 1 MHz	-	235	-	pF
	V_R = 50V, *f* = 1 MHz	-	22	-	
Spectral Application Range	Spot Scan	350	-	1100	nm
Responsivity	λ= 900nm, V_R =0V	0.50	0.55	-	A/W
Breakdown Voltage	I = 10 μA	-	75	-	V
Noise Equivalent Power	V_R = 5V@ λ=950nm	-	$3.8x10^{-13}$	-	W/ $\sqrt{}$ Hz
Response Time**	RL = 50Ω, V_R =0V	-	190	-	nS
	RL = 50Ω, V_R =50V	-	8	-	

**Response time of 10% to 90% is specified at 660nm wavelength light.

TYPICAL PERFORMANCE

SPECTRAL RESPONSE



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