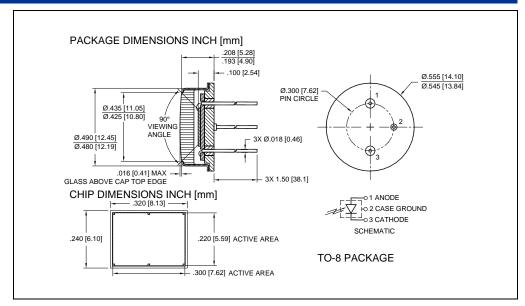


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# **Precision – Control – Results**





#### **DESCRIPTION**

The **SD 290-12-22-241** is a blue enhanced silicon PIN photodiode, packaged in a hermetic TO-8 metal package.

# FEATURES

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

#### **RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

#### **APPLICATIONS**

- Instrumentation
- Industrial
- Medical



#### **ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	75	V	T <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature	-	-	+240	°C	-

<sup>\*1/16</sup> inch from case for 3 seconds max.



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# **Precision – Control – Results**

## **OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS	
Dark Current	V <sub>R</sub> = 5V	-	13.0	52.0	nA	
Shunt Resistance	V <sub>R</sub> = 10 mV	35	-	-	MΩ	
Junction Capacitance	V <sub>R</sub> = 0V,. f = 1 MHz		725	-	pF	
	V <sub>R</sub> = 5V,. f = 1 MHZ	-	213	-		
Spectral Application Range	Spot Scan	350	-	1100	nm	
Responsivity	$\lambda$ = 450 nm V, V <sub>R</sub> = 0 V	.20	.28	-	A/W	
Breakdown Voltage	I = 10μA	-	50	-	V	
Noise Equivalent Power	$V_R = 0V @ \lambda = Peak$	-	1.2x10 <sup>-13</sup>	-	W/√ <sub>Hz</sub>	
Response Time**	RL = $50\Omega$ , $V_R = 0V$	-	190	-	nS	
	$RL = 50\Omega, V_R = 10V$	-	13	-		

<sup>\*\*</sup>Response time of 10% to 90% is specific at 660nm wavelength light.

# **TYPICAL PERFORMANCE**

## **SPECTRAL RESPONSE**

