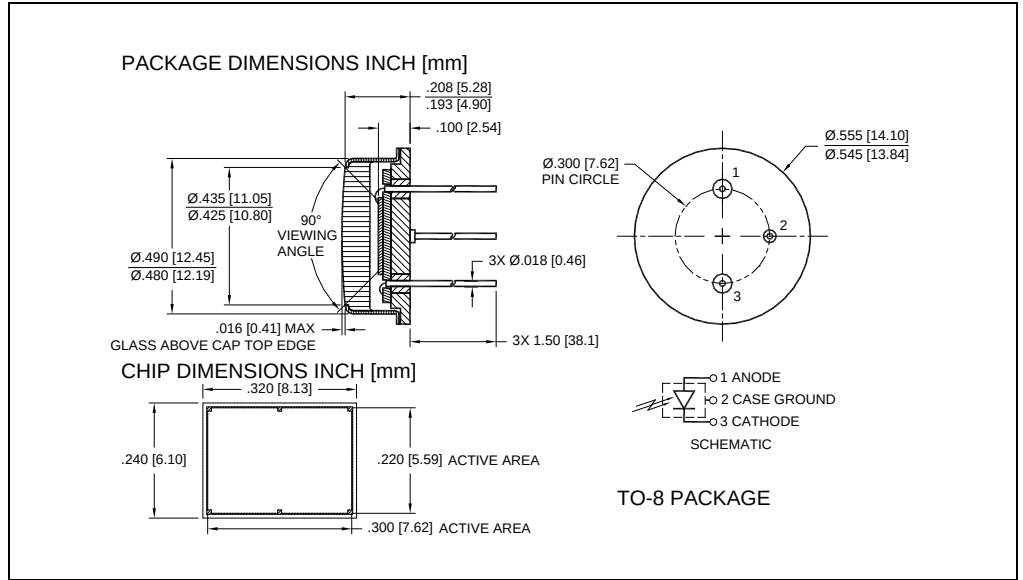




DESCRIPTION

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	$T_a = 23^{\circ}\text{C}$ UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+150	$^{\circ}\text{C}$	-
Operating Temperature	-40	to	+125	$^{\circ}\text{C}$	-
Soldering Temperature	-	-	+240	$^{\circ}\text{C}$	-

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

OPTO-ELECTRICAL PARAMETERS

$T_a = 23^\circ\text{C}$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	$V_R = 5\text{V}$	-	13.0	52.0	nA
Shunt Resistance	$V_R = 10\text{ mV}$	35	-	-	$\text{M}\Omega$
Junction Capacitance	$V_R = 0\text{V}, f = 1\text{ MHz}$	-	725	-	pF
	$V_R = 5\text{V}, f = 1\text{ MHz}$		213	-	
Spectral Application Range	Spot Scan	350	-	1100	nm
Responsivity	$\lambda = 450\text{ nm}$, $V_R = 0\text{ V}$	.20	.28	-	A/W
Breakdown Voltage	$I = 10\mu\text{A}$	-	50	-	V
Noise Equivalent Power	$V_R = 0\text{V}$ @ $\lambda = \text{Peak}$	-	1.2×10^{-13}	-	$\text{W}/\sqrt{\text{Hz}}$
Response Time**	$R_L = 50\Omega$, $V_R = 0\text{V}$	-	190	-	nS
	$R_L = 50\Omega$, $V_R = 10\text{V}$	-	13	-	

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

