

## **FEATURES**

- Low noise
- · Low dark current
- High response

## **DESCRIPTION**

The **SD 004-11-41-211** is a high sensitivity low noise characteristics InGaAs photodiode packaged in a leaded hermetic TO-46 metal package.

## **APPLICATIONS**

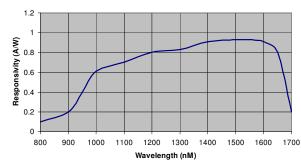
- · Communications
- Industrial
- Medical

# ABSOLUTE MAXIMUM RATING (TA)= 23 °C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
$V_{BR}$	Reverse Voltage		75	V
T <sub>STG</sub>	Storage Temperature	-55	+100	°C
To	Operating Temperature	-40	+85	℃
Ts	Soldering Temperature*		+260	°C

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

# **SPECTRAL RESPONSE**



# ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23 °C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>D</sub>	Dark Current	$V_R = 5V$			2.0	nA
R <sub>SH</sub>	Shunt Resistance	$V_R = 10 \text{ mV}$	400	1000		$\mathbf{M}\Omega$
$C_J$	Junction Capacitance	$V_R = 5V$ , $f = 1$ MHz		1.5	1.7	pF
$\lambda$ range	Spectral Application Range	Spot Scan	800		1700	nm
R	Responsivity	$\lambda$ = 1310nm, $V_R$ = 5V	0.80	0.90		A/W
$V_{BR}$	Breakdown Voltage	$I = 1\mu A$		18		V
NEP	Noise Equivalent Power	$V_{R} = 5V @ \lambda = 1310nm$		3.00X10 <sup>-14</sup>		W/ √ <sub>Hz</sub>
t <sub>r</sub>	Response Time**	$RL = 50 \Omega, V_R = 5V$			0.23	nS

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

<sup>\*\*</sup>Response time of 10% to 90% is specified at 1310nm wavelength light.