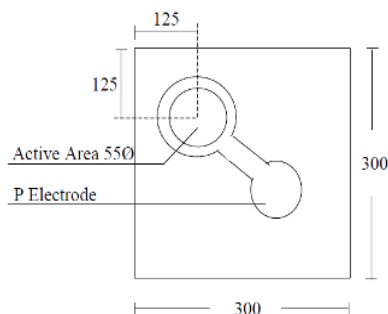
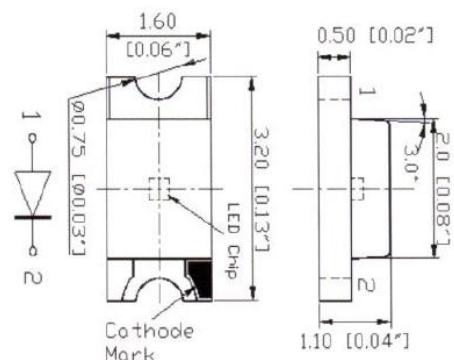


CHIP DIMENSIONS, μm



1206 PACKAGE DIMENSIONS, mm[inch]



DESCRIPTION

The SD002-151-001 is a high sensitivity, low noise, 0.05 mm diameter active area InGaAs photodiode sensitive to wavelengths over a standard InGaAs (800-1700nm) spectral range and used for imaging and sensing applications. The photodetector is assembled in a 1206 package.

FEATURES

- Low Noise
- Low Dark Current and Capacitance
- High Sensitivity
- Detection in LWIR

RELIABILITY

Contact API for recommendations on specific test conditions and procedures.

APPLICATIONS

- Industrial Sensing
- Security
- Communication
- Medical

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS
Reverse Voltage	-	40	V
Operating Temperature	-40	+125	°C
Storage Temperature	-55	+100	°C
Soldering Temperature	-	+260	°C
Wavelength Range	800	1700	nm

$T_a = 23^\circ\text{C}$ unless noted otherwise

ABSOLUTE MAXIMUM RATINGS

T_a = 23°C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Breakdown Voltage	I _{bias} = 1 μA	-	50	-	V
Responsivity	λ = 1310 nm, V _r = 5V	0.80	1.0	-	A/W
Shunt Resistance	V _{bias} = 10 mV	0.2	1.0	-	GΩ
Dark Current	V _{bias} = 5V	-	0.75	1.0	nA
Capacitance	V _{bias} = 5V; f = 1.0 MHz	-	10	-	pF
Rise Time (50Ω load)	V _{bias} = 5V; λ = 1310 nm	-	1.2	-	ns
Spectral Range	-	800	-	1700	nm
Noise Equivalent Power	V _r = 5V @ λ = 1310	-	4.0x10 ⁻¹⁵	-	W/Hz ^{1/2}

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

