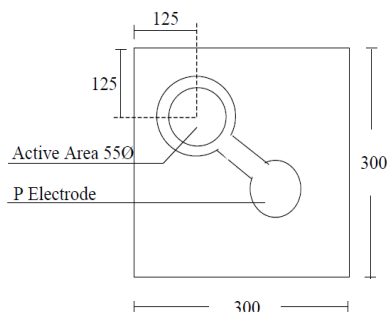
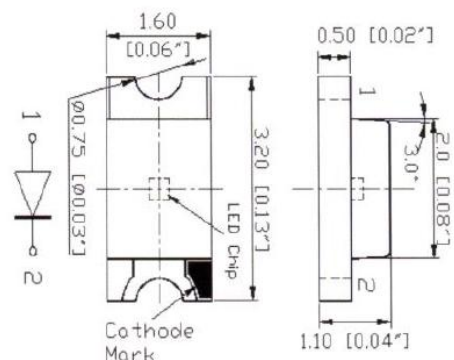


CHIP DIMENSIONS, μm



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°C unless noted otherwise

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.

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

