



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



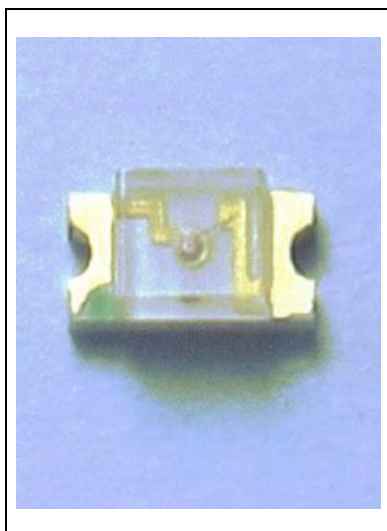
## Contact us

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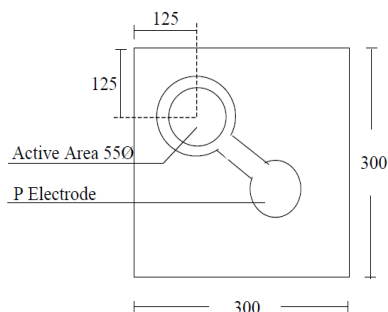
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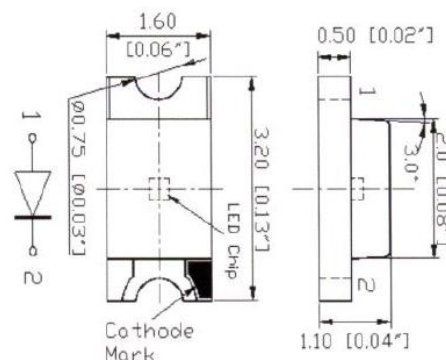




CHIP DIMENSIONS,  $\mu\text{m}$



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<sub>a</sub> = 23°C unless noted otherwise

**ABSOLUTE MAXIMUM RATINGS**

T<sub>a</sub> = 23°C unless noted otherwise

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

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

