



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!



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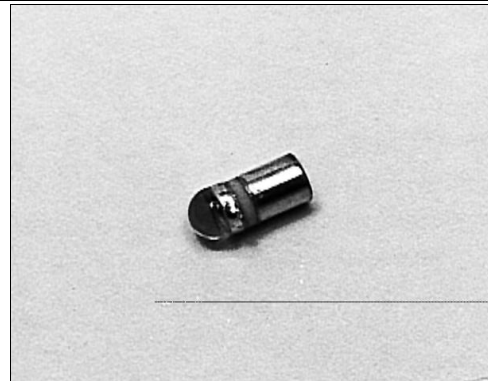


SD2420

Silicon Photodiode

FEATURES

- Miniature, hermetically sealed, pill style, metal can package
- 48° (nominal) acceptance angle
- Wide operating temperature range (-55°C to +125°C)
- Ideal for direct mounting to printed circuit boards
- Mechanically and spectrally matched to SE2460 and SE2470 infrared emitting diodes



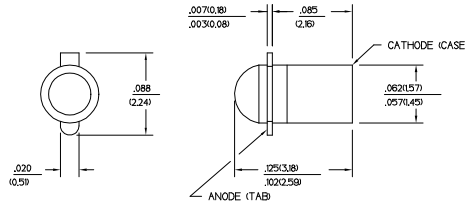
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DESCRIPTION

The SD2420 is a PN silicon photodiode mounted in a hermetically sealed, glass lensed, metal can package. This package directly mounts in double sided PC boards.

OUTLINE DIMENSIONS in inches (mm)

Tolerance 3 plc decimals ±0.005(0.12)
 2 plc decimals ±0.020(0.51)



DIM_014.cdr

SD2420

Silicon Photodiode

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Light Current SD2420-002	I_L	7.0			μA	$V_R=20\text{ V}$ $H=20\text{ mW/cm}^2$ (1)
Dark Current	I_D			5.0	nA	$V_R=20\text{ V}$ $H=0$
Reverse Breakdown Voltage	V_{BR}	50			V	$I_R=10\ \mu\text{A}$
Angular Response (2)	\emptyset		48		degr.	$I_F=\text{Constant}$
Rise And Fall Time	t_r, t_f		50		ns	$V_R=20\text{ V}$ $R_L=50\ \Omega$

Notes

1. The radiation source is a tungsten lamp operating at a color temperature of 2870°K.
2. Angular response is defined as the total included angle between the half sensitivity points.

ABSOLUTE MAXIMUM RATINGS

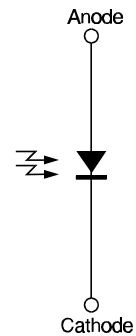
(25°C Free-Air Temperature unless otherwise noted)

Cathode Anode Voltage	50 V
Power Dissipation	125 mW (1)
Operating Temperature Range	-55°C to 125°C
Storage Temperature Range	-65°C to 150°C
Soldering Temperature (10 sec)	260°C

Notes

1. Derate linearly from 25°C free-air temperature at the rate of 1.19 mW/°C.

SCHEMATIC



Honeywell reserves the right to make changes in order to improve design and supply the best products possible.

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SD2420

Silicon Photodiode

SWITCHING TIME TEST CIRCUIT

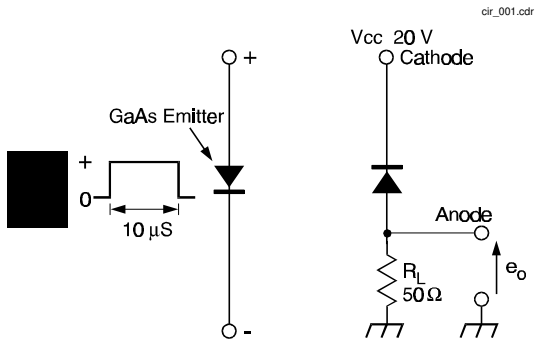


Fig. 1 Responsivity vs Angular Displacement

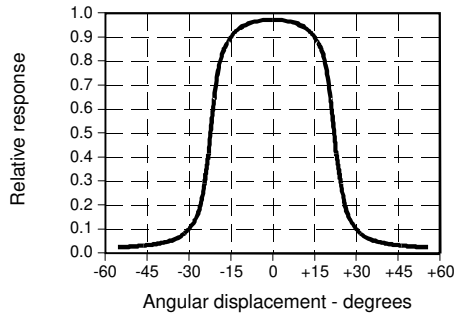
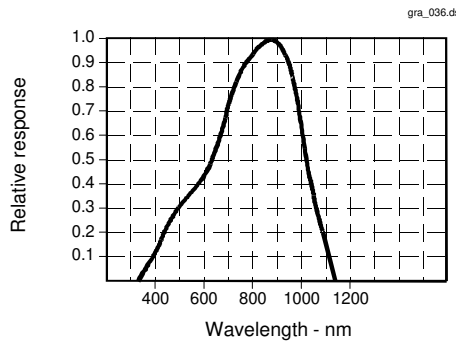


Fig. 3 Spectral Responsivity



All Performance Curves Show Typical Values

SWITCHING WAVEFORM

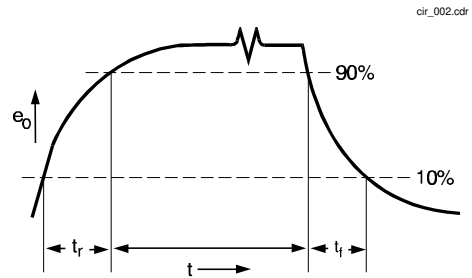
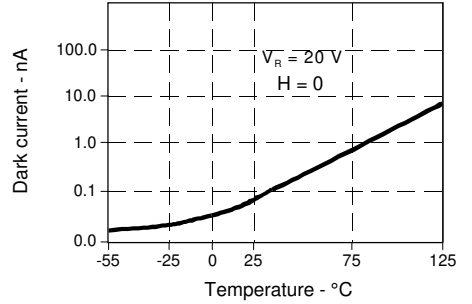


Fig. 2 Dark Current vs Temperature



SD2420
Silicon Photodiode



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