



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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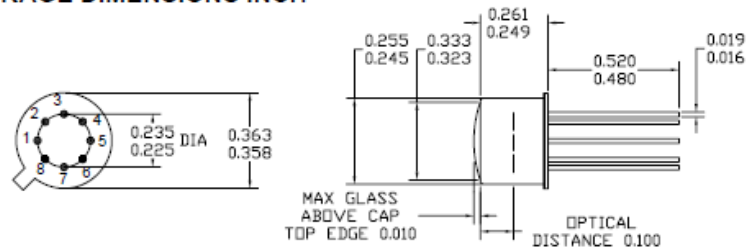
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**PACKAGE DIMENSIONS INCH**



**CHIP DIMENSIONS**

FOR SCHEMATIC AND CONNECTION DIAGRAM SEE SHEET 2

**TO-5 PACKAGE**

**DESCRIPTION**

The **SD 100-42-21-231** is a red enhanced detector/amplifier that combines a silicon photodiode with an opamp without a feedback network, packaged in a hermetic TO-5 metal can package.

**FEATURES**

- Low Noise
- Red Enhanced
- Custom Feedback
- High Speed

**RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

**APPLICATIONS**

- Instrumentation
- Industrial
- Medical



**ABSOLUTE MAXIMUM RATINGS**

T<sub>a</sub> = 23°C UNLESS OTHERWISE NOTED

SYMBOL	MIN	TYPE	MAX	UNITS
Voltage Supplies	±5	±15	±18	V
Input Offset Voltage	-	1	2	mV
Input Voltage Noise@ f=10KHz	-	12	-	nV/√Hz
Input Bias Current	-	15	40	pA
Input Current Noise @ f=10KHz	-	20	30	fA/√Hz
Gain Bandwidth product	-	18	-	MHz
Supply Current		6.5	7	mA
Storage Temperature	-65	-	+125	°C
Operating Temperature	-40	-	-85	°C

**OPTO-ELECTRICAL PARAMETERS**

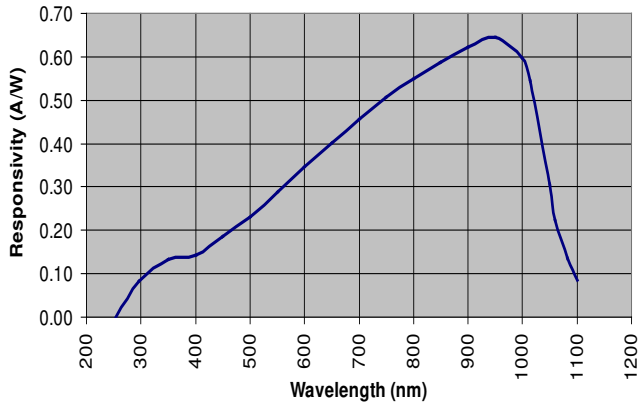
T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	V <sub>R</sub> = 10 V	-	-	10	nA
Shunt Resistance	V <sub>R</sub> = 0 mV	300	-	-	MΩ
Junction Capacitance	V <sub>R</sub> = 0V; f = 1 MHz	-	87	-	pF
	V <sub>R</sub> = 10V; f = 1 MHz	-	18	-	
Spectral Application Range	Spot Scan	250	-	1100	nm
Reponsivity	λ = 950nm, V <sub>R</sub> = 0 V	-	.64	-	A/W

\*\*Response time of 10% to 90% is specified at 660nm wavelength light.

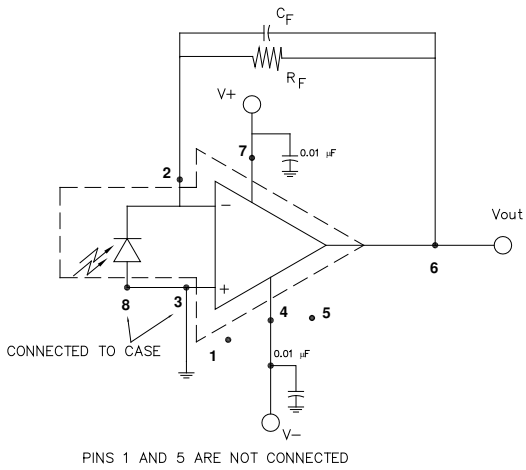
**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**



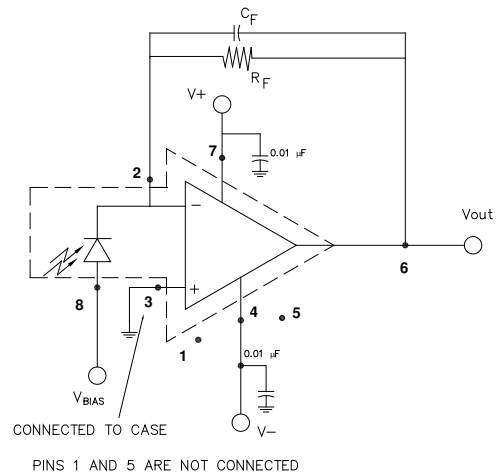
**SCHEMATIC AND CONNECTION DIAGRAM**

PHOTOVOLTAIC MODE



**Note: Components shown outside the dashed area are external to the device, and must be supplied by the user.**

PHOTOCONDUCTIVE MODE



**Note: Components shown outside the dashed area are external to the device, and must be supplied by the user.**