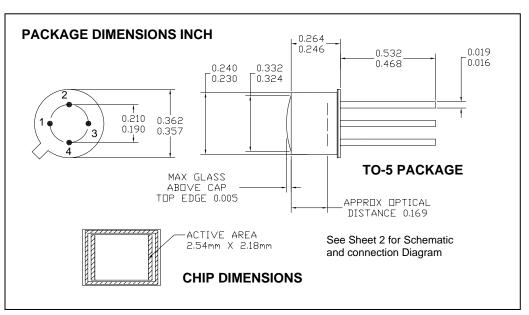


# Detector/Amplifier Hybrids With Feedback Resistor SD 112-43-11-221





## **FEATURES**

- · Low noise
- Red enhanced
- · Feedback circuit

#### **DESCRIPTION**

The **SD 112-43-11-221** is a detector/amplifier hybrid that combines a silicon photodiode with an opamp with a feedback resistor and capacitor, available in a hermetic TO-5 metal can package.

#### **APPLICATIONS**

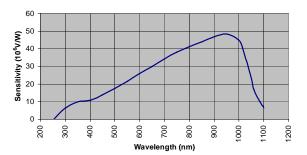
- Instrumentation
- Industrial
- Medical

## ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	
Vs	Voltage Supplies	± 5		± 15	V	
Р	Power Dissipation		360		mW	
T <sub>STG</sub>	Storage Temperature	-25		+100	S	
Ts	Soldering Temperature*		+240		S	

<sup>\* 1/16</sup> inch from case for 3 seconds max.

#### SPECTRAL SENSITIVITY



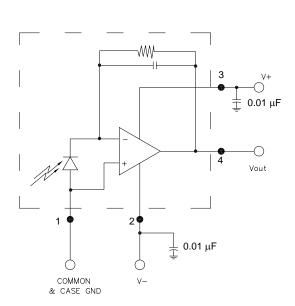
# ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C. Vs = ±12V UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
f <sub>3db</sub>	Cutoff Frequency		0.9	1		KHz
Gain	Transimpedance Gain			75		$\mathbf{M}\Omega$
S	Sensitivity	l= 940 nm		4.9x10 <sup>7</sup>		V/W
V <sub>os</sub>	Output Offset Voltage				± 3	mV
I <sub>s</sub>	Power Supply Current			6.2	7	mA
$V_n$	Broadband Noise	f= 10Hz to cutoff		20		$uV_{rms}$

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.



## **SCHEMATIC AND CONNECTION DIAGRAM**



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