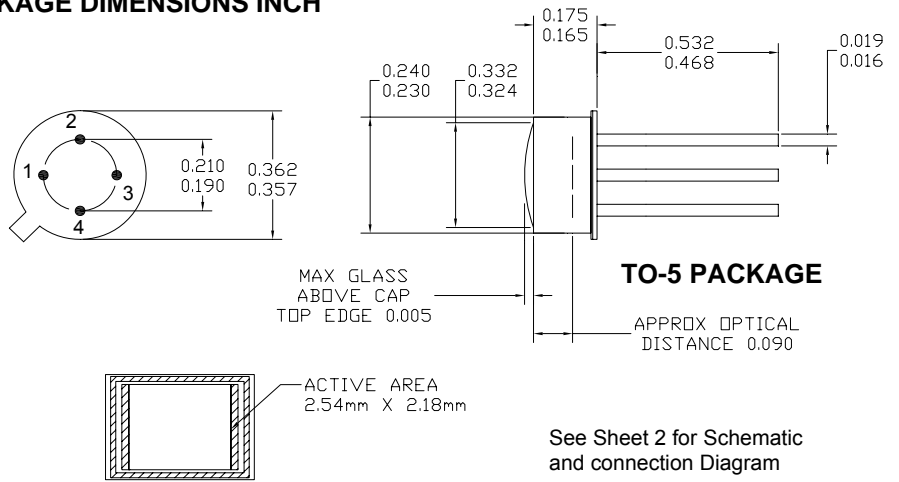




PACKAGE DIMENSIONS INCH



CHIP DIMENSIONS

FEATURES

- Low noise
- Blue enhanced
- Feedback circuit
- High speed

DESCRIPTION

The SD 112-45-11-221 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

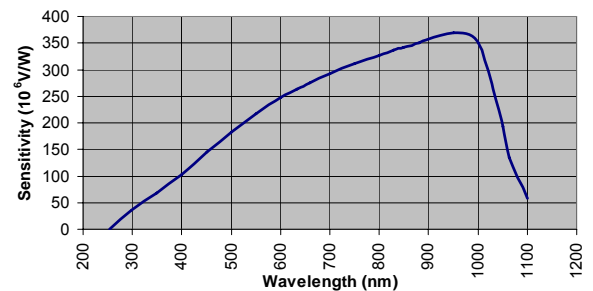
- Instrumentation
- Industrial
- Medical

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

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

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

SPECTRAL SENSITIVITY

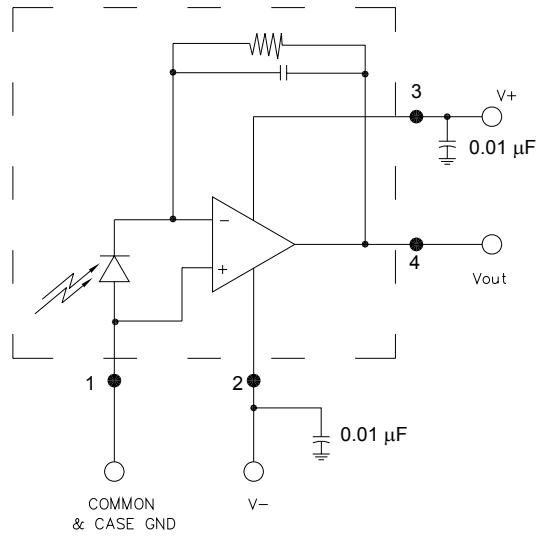


ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C, V<sub>s</sub> = ± 5V, R<sub>i</sub> > 1MΩ, UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
f <sub>3db</sub>	Cutoff Frequency			0.13		KHz
Gain	Transimpedance Gain			600		MΩ
S	Sensitivity	I = 633 nm	2.8x10 <sup>8</sup>	2.4x10 <sup>8</sup>		V/W
V <sub>os</sub>	Output Offset Voltage			0.08	± 1	mV
I <sub>s</sub>	Power Supply Current			0.8	0.9	mA
V <sub>n</sub>	Broadband Noise	f = 0.01Hz to 135 Hz			52	uV <sub>rms</sub>
NEP	Noise Equivalent Power	f = 0.01Hz to 135 Hz		3.5x10 <sup>-14</sup>		W/√Hz
I <sub>s</sub>	Supply Current			850	950	uA
V <sub>OSW</sub>	Output Voltage Swing			0 to 4.7	0 to 4.7	V

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.**