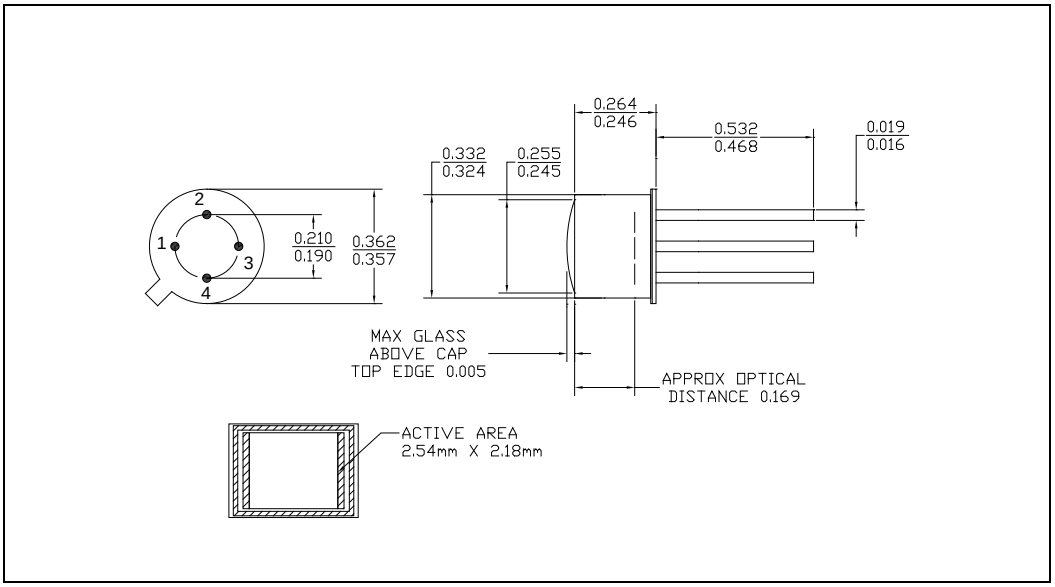
Detector/Amplifier Hybrids With Feedback Resistor

SD 112-42-11-221

WWW.LUNAINC.COM | **Precision – Control – Results**



DESCRIPTION

The **SD 112-42-11-221** 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.

FEATURES

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

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Instrumantation
- Medical
- Industrial

RoHS

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	TYPE	MAX	UNITS	
Voltage Supplies	±5	-	±15	V	T_a = 23°C UNLESS OTHERWISE NOTED
Power Dissipation	-	360	-	mW	-
Storage Temperature	-25	-	+100	°C	-
Soldering Temperature*	-	+240	-	°C	-

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

REV 01-04-16

Luna Optoelectronics, 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935

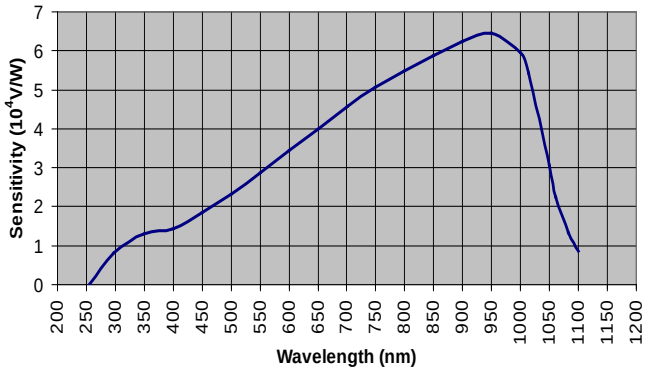
OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Cutoff Frequency	-	500	750	-	KHz
Transimpedance Gain	-	-	0.1	-	MΩ
Sensitivity	λ= 940 nm	-	$6.3x10^4$	-	V/W
Output Offset Voltage	-	-	-	±1	mV
Power Supply Voltage	-	-	6.2	7	mA
Broadband Noise	f-10Hz to cutoff	-	-	60	uV_{rms}

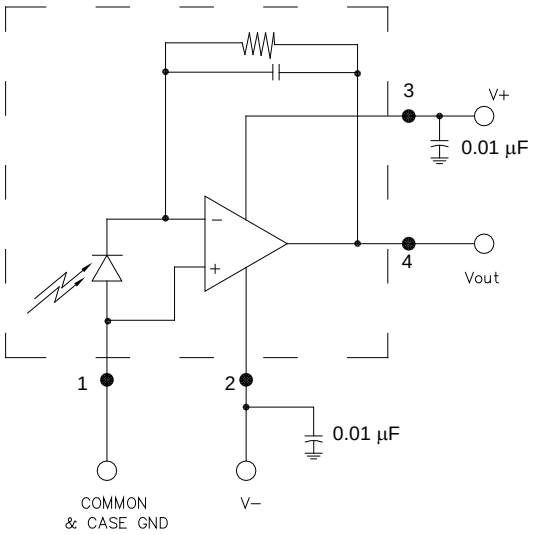
TYPICAL PERFORMANCE

SPECTRAL RESPONSE



Luna Optoelectronics, 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935

SCHEMATIC AND CONNECTION DIAGRAM



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

Luna Optoelectronics, 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935