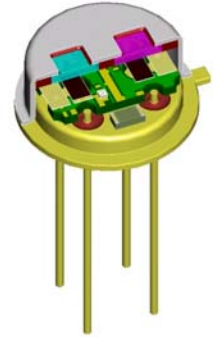


LIM-252-#

pyroelectric multispectral detector

Description:

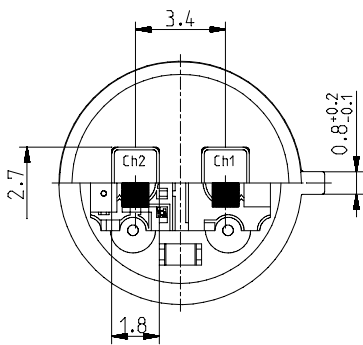
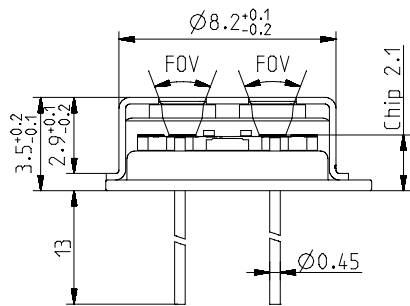
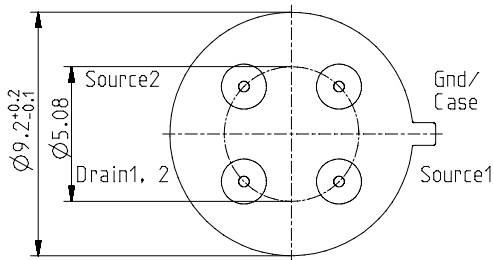
dual channel; TO39 housing; small chip size; thermal compensation; JFET; voltage mode;



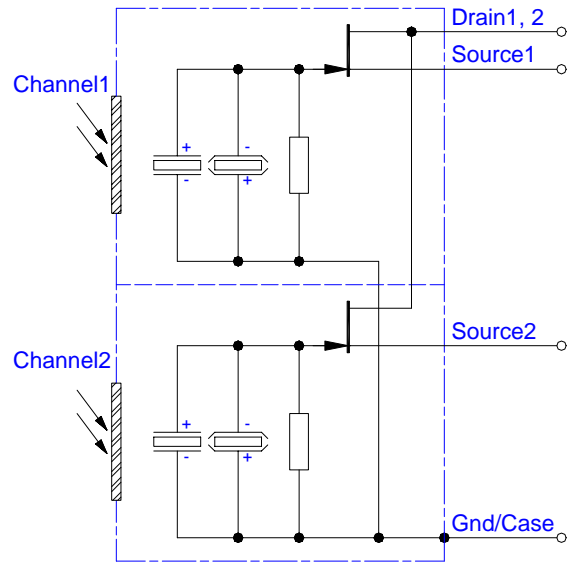
HOUSING:

PIN ASSIGNMENT:

TO39 4Pin
Bottom view

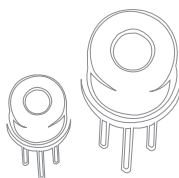
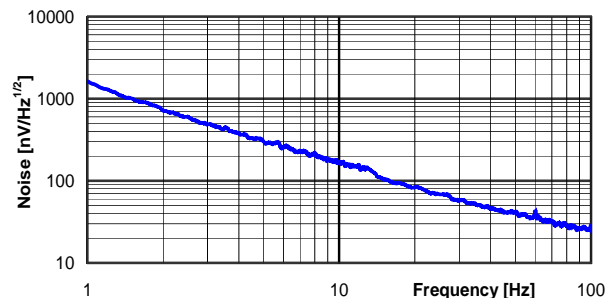
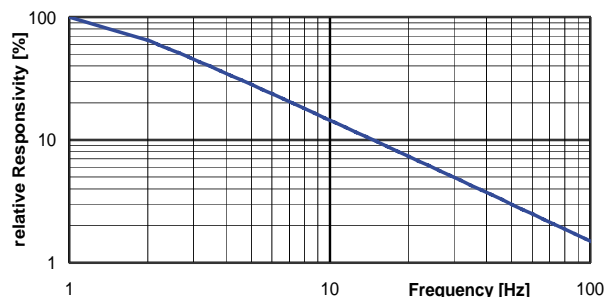


Top view



Maximum current between Case and the "Case"-Pin 10 mA!

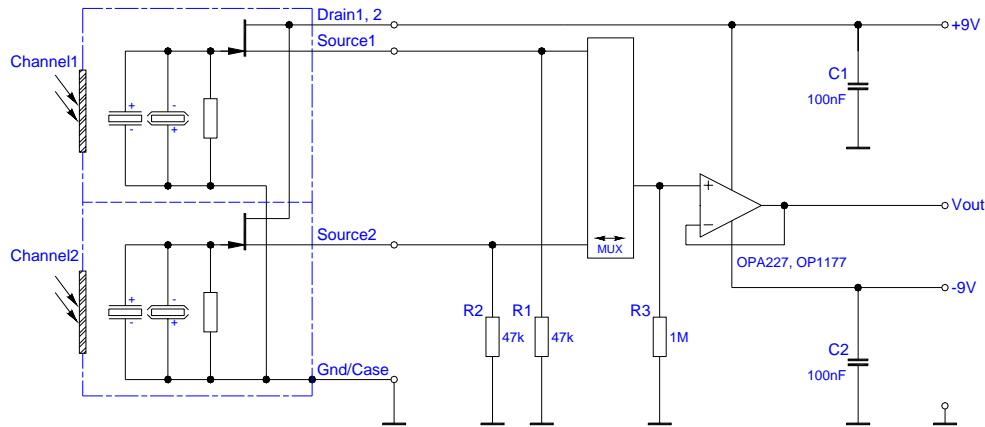
FREQUENCY RESPONSE:



LIM-252-#

pyroelectric multispectral detector

TEST CIRCUIT:



PARAMETERS:

| | | |
|--|-----|--|
| Aperture size | nom | ø6.0 mm, single channel 2.7x1.8 mm ² |
| Element size / type | nom | 1.0x1.8 mm ² lithium-tantalate with black layer |
| Thermal time constant | typ | 100 ms |
| Electrical time constant | typ | 3 s |
| Polarity | nom | positive signal by positive IR flux change |
| Voltage responsivity (rms) {500K, 10 Hz, 25 °C, without window} | min | 280 V/W |
| Noise density (rms) {10 Hz, BW 1 Hz, 25 °C} | max | 220 nV/(sqrt[Hz]) |
| Detectivity {500K, 10 Hz, 1 Hz, 25 °C, without window} | min | 1.7E+08 cm(sqrt[Hz])/W |
| Offset voltage {opt. Drain current = 10 ... 100µA} | nom | 0.4 ... 1.5 V |
| Drain source voltage | max | 18 V |
| Operating / Storage temperature | nom | -25 ... +85°C |
| IR window | | Combinations of all InfraTec standard narrow band pass filters are available. Customized filters upon request. |
| Filter sizes | nom | rectangular filters: (3.50 ±0.1 x 2.50 ±0.1)mm circular filters: not applicable standard thickness: 0.50 mm +0.2/-0.1 mm |
| Field of View | min | CaF2 or BaF2; 0.4 mm thick: not applicable Silicon substrate; 0.5 mm thick: 40° |