

LIM-032-#

pyroelectric multispectral detector

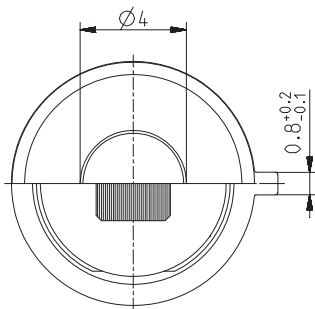
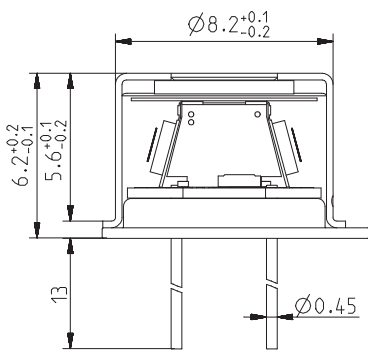
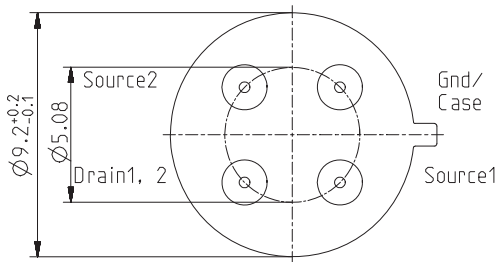
Description:

dual channel; TO39 housing; small chip size; JFET; voltage mode; beamsplitter;



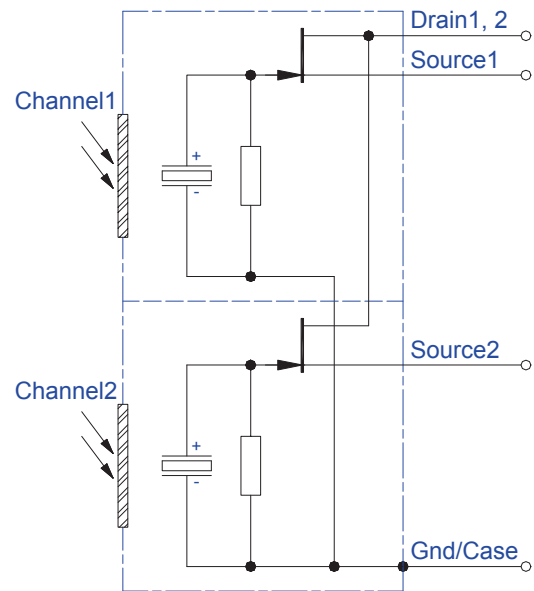
HOUSING:

TO39 4Pin
Bottom view



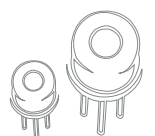
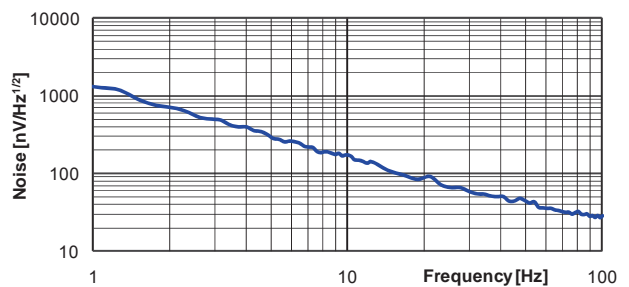
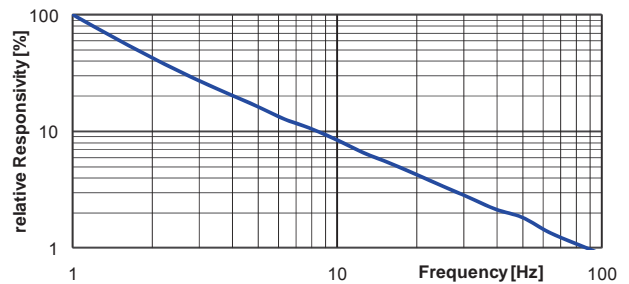
Top view

PIN ASSIGNMENT:



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

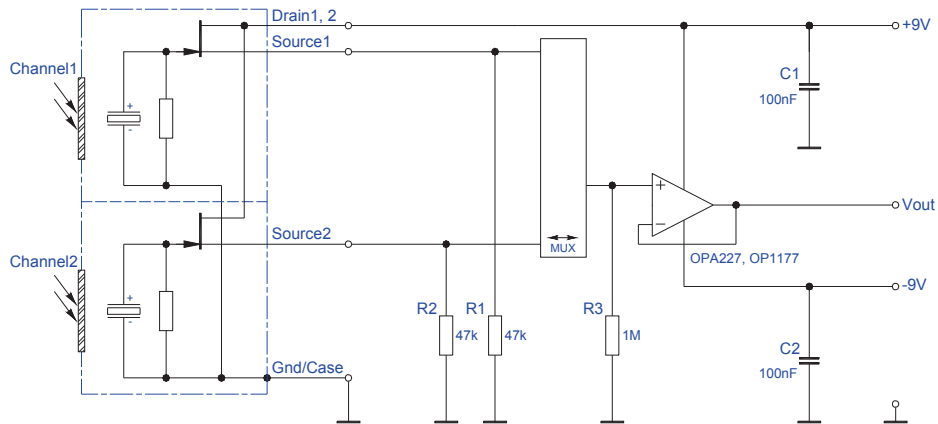
FREQUENCY RESPONSE:



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TEST CIRCUIT:



PARAMETERS:

Aperture size	nom	2.8 mm sq.
Element size / type	nom	2.2x1.3 mm ² lithium-tantalate with black layer
Beamsplitter	nom	array of micro grooves
Thermal time constant	typ	250 ms
Electrical time constant	typ	5 s
Polarity	nom	positive signal by positive IR flux change
Voltage responsivity (rms) {500 K, 10 Hz, 25 °C, without filter/window}	min	150 V/W
Noise density (rms) {10 Hz, BW 1 Hz, 25 °C}	max	220 nV/(sqrt[Hz])
Detectivity {500 K, 10 Hz, 1 Hz, 25 °C, without filter/window}	typ	2.9E+08 cm(sqrt[Hz])/W
Offset voltage {opt. Drain current = 10 ... 100 µA}	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: (2.70+0/-0.1 x 2.00+0.05/-0.1)mm circular filters: not applicable standard thickness: 0.50 mm +0.2/-0.1 mm
Aperture window		Selected by manufacturer for best channel filter matching
Aperture window sizes	nom	rectangular filters: (5.25+0/-0.05 x 5.25+0/-0.05)mm circular filters: ø6.5 mm ±0.1 mm standard thickness: 0.50 mm ±0.1 mm
Field of View	min	Maximum angle of incidence shall be ±7° otherwise internal reflexions may modify the channel ratio!

InfraTec reserves the right to change these specifications at any time without notification.

