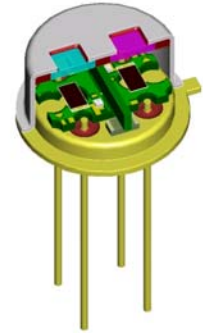


## LIM-122-#

## pyroelectric multispectral detector

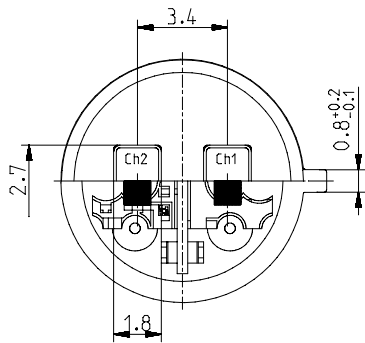
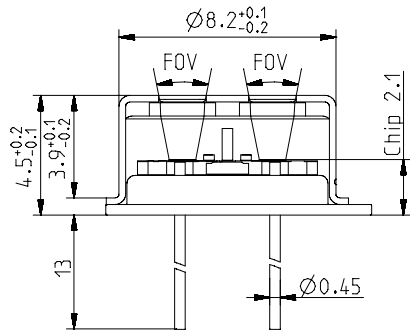
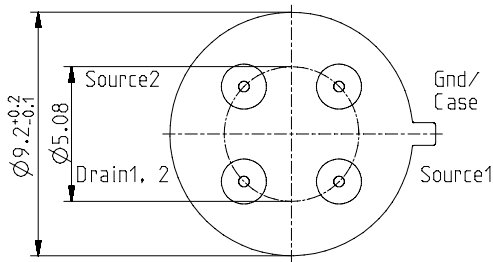
### Description:

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



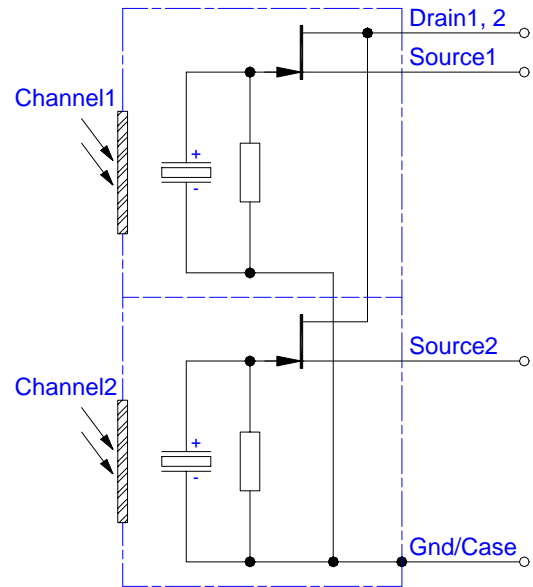
### HOUSING:

TO39 4Pin  
Bottom view



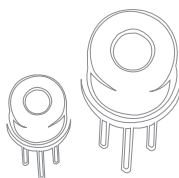
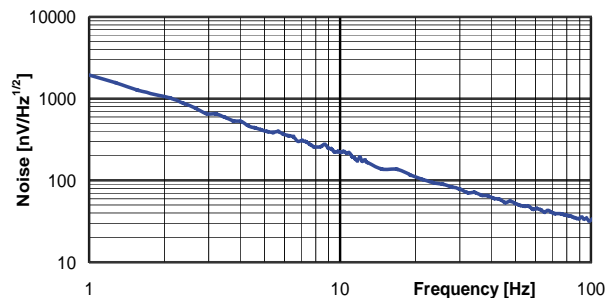
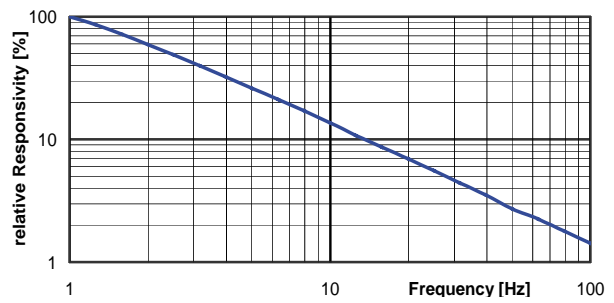
Top view

### PIN ASSIGNMENT:



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

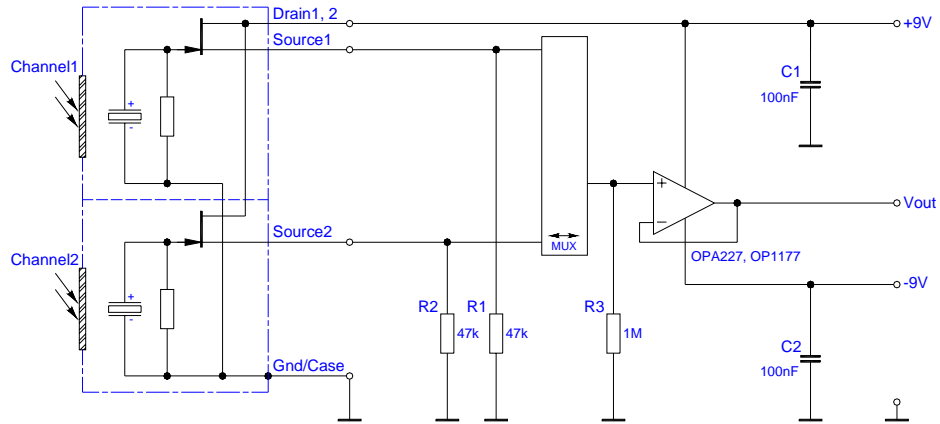
### FREQUENCY RESPONSE:



## LIM-122-#

## pyroelectric multispectral detector

### TEST CIRCUIT:



### PARAMETERS:

Aperture size	nom	ø6.0 mm, single channel 2.7x1.8 mm <sup>2</sup>
Element size / type	nom	1.0x1.8 mm <sup>2</sup> 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	560 V/W
Noise density (rms) {10 Hz, BW 1 Hz, 25 °C}	max	280 nV/(sqrt[Hz])
Detectivity {500K, 10 Hz, 1 Hz, 25 °C, without window}	min	2.7E+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 thickness range 0.70 ... 1.10 mm on request
Field of View	min	CaF <sub>2</sub> or BaF <sub>2</sub> ; 0.4 mm thick: not applicable Silicon substrate; 0.5 mm thick: 20°