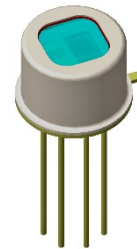


## LRM-254-#

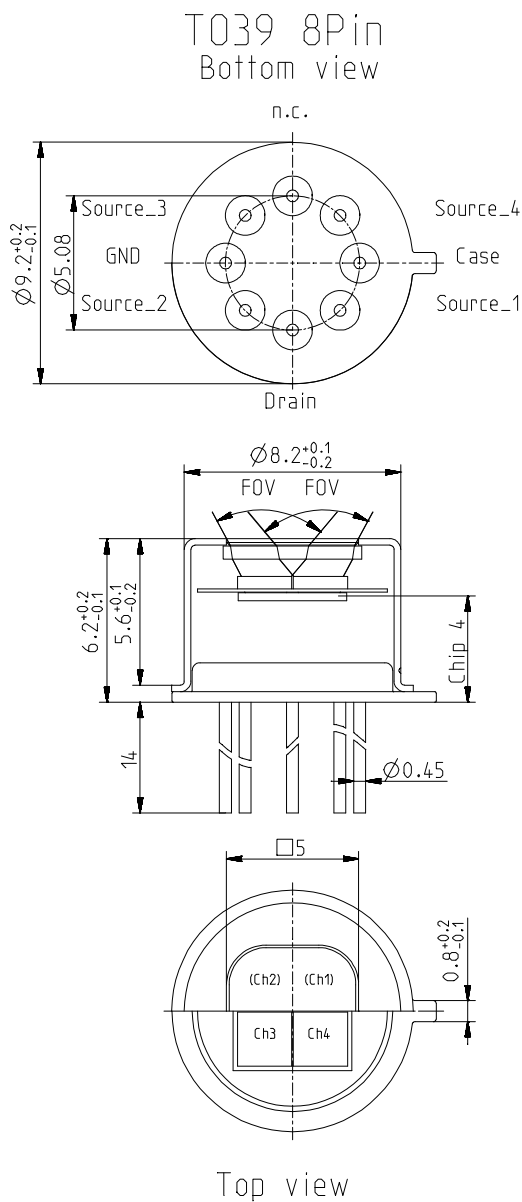
## PYROMID® multi channel pyroelectric detector

### Description:

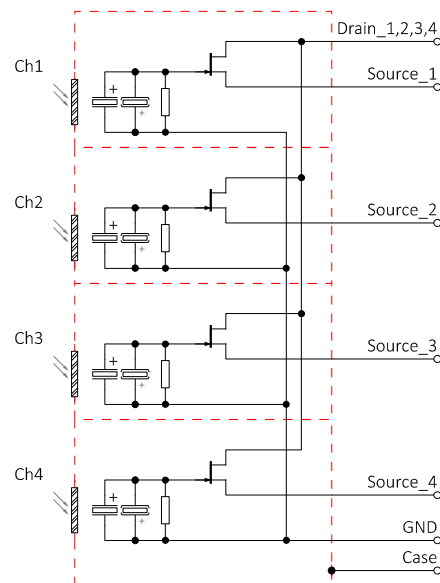
quad channel; TO39 housing; small chip size; thermal compensation; JFET; voltage mode;



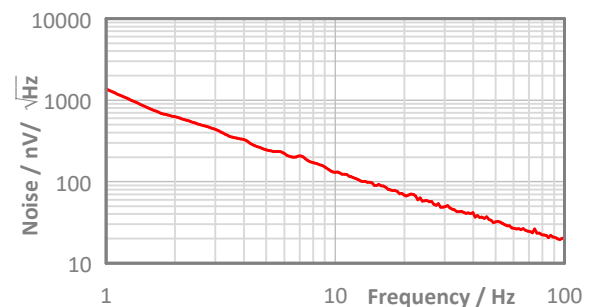
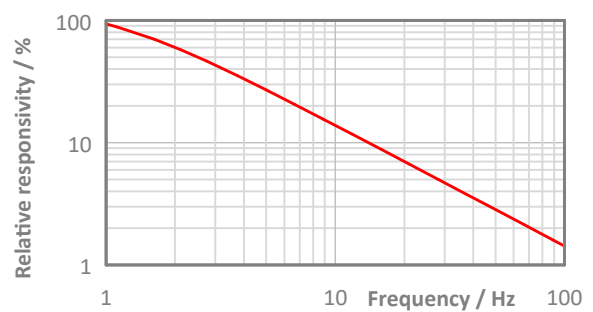
### Housing:



### Pin Assignment:



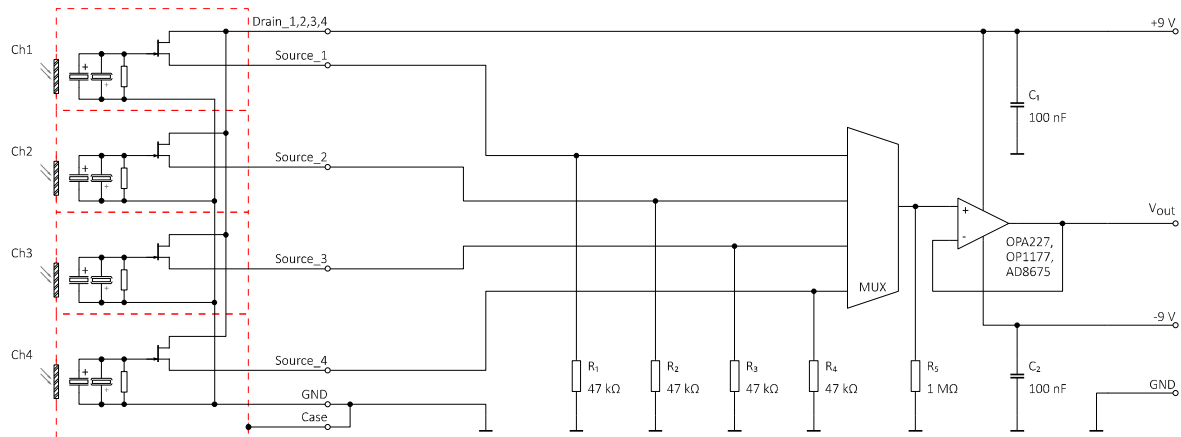
### Frequency Response:



## LRM-254-#

## PYROMID® multi channel pyroelectric detector

### Test Circuit:



### Parameters:

Aperture size	nom	□ 5.0 mm
Element size / type	nom	1.4 × 1.4 mm <sup>2</sup> lithium-tantalate with black layer
Thermal time constant	typ	100 ms
Electrical time constant	typ	4 s
Polarity	nom	Positive signal by positive IR flux change
Voltage responsivity (rms) {500 K, 10 Hz, 25 °C, without filter/window}	min	400 V/W
Noise density (rms) {10 Hz, BW 1 Hz, 25 °C}	max	170 nV/√Hz
Detectivity {500 K, 10 Hz, BW 1 Hz, 25 °C, without filter/window}	typ	4.7E+08 cmVHz/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 filter		Combinations of all InfraTec standard narrow band pass filters are available. Customized filters upon request.
Filter sizes	nom	Rectangular filters: (2.05 × 2.05) mm ±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
Aperture window		Selected by InfraTec for best channel filter matching
Aperture window sizes	nom	Rectangular filters: (5.25 × 5.25) mm +0/-0.05 mm Circular filters: ø6.5 mm ±0.1 mm Standard thickness: 0.50 mm ±0.1 mm
Field of View	min	70° (with filter: silicon substrate; 0.5 mm thick and aperture: Si ARC; 0.5 mm thick)

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