

## LIE-200-#

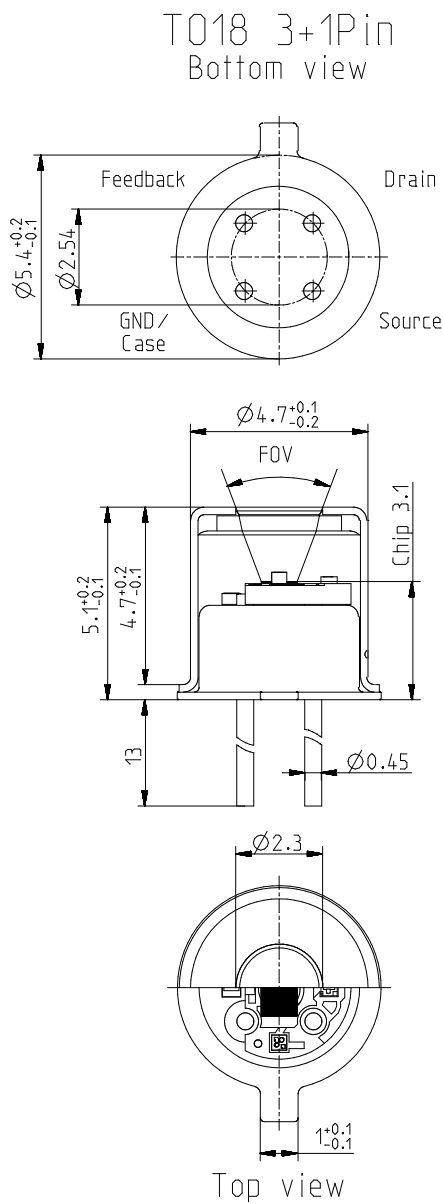
## Single channel pyroelectric detector

### Description:

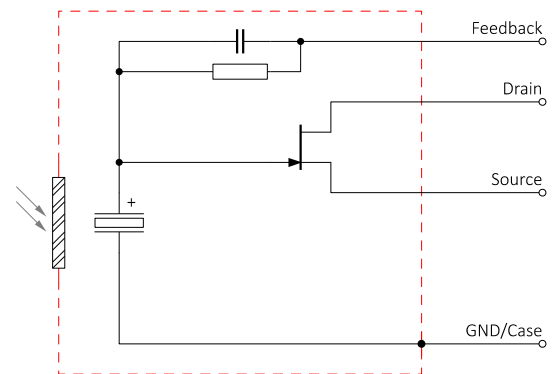
single channel; TO18 housing; small chip size;  
JFET; current mode; feedback 1 GOhm;



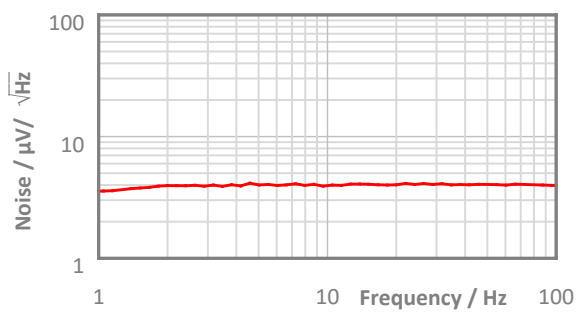
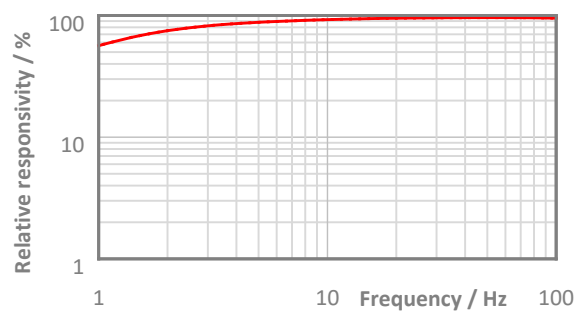
### Housing:



### Pin Assignment:



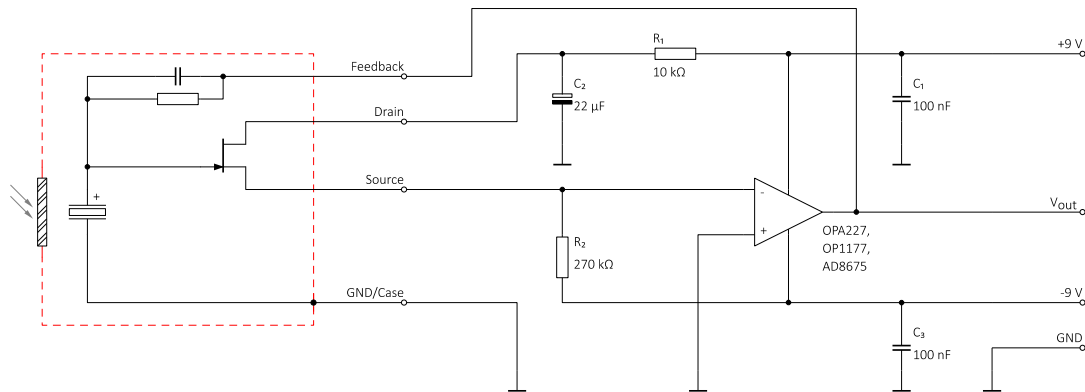
### Frequency Response:



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### Test Circuit:



### Parameters:

Aperture size	nom	ø2.3 mm
Element size / type	nom	1.4 × 1.0 mm <sup>2</sup> lithium-tantalate with black layer
Thermal time constant	typ	150 ms
Feedback resistor	nom	1 GΩ ±10 %
Feedback capacitor	nom	470 fF ±100 fF
Polarity	nom	Negative signal by positive IR flux change
Voltage responsivity (rms) {500 K, 10 Hz, 25 °C, without filter/window}	min	1,400 V/W
Noise density (rms) {10 Hz, BW 1 Hz, 25 °C}	max	5.0 μV/√Hz
Detectivity {500 K, 10 Hz, 1 Hz, 25 °C, without filter/window}	typ	5.5E+07 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		All InfraTec windows and filters are available (except KBr and CsI). Customized filters upon request.
Filter sizes	nom	Rectangular filters: (2.70 × 2.70) mm +0/-0.05 mm Circular filters: ø3.3 mm ±0.1 mm Standard thickness: 0.50 mm +0.2/-0.1 mm
Field of View	min	CaF2 or BaF2; 0.4 mm thick: 40° Silicon substrate; 0.5 mm thick: 45°

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