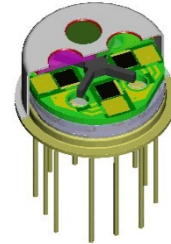


## LIM-214-#

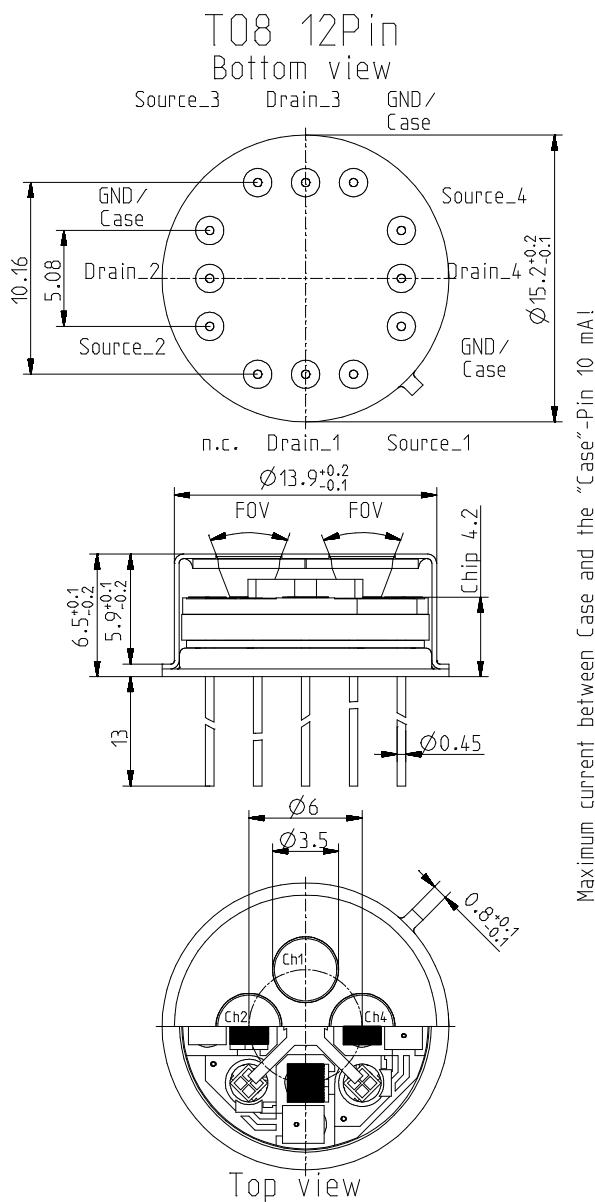
## Planar multi channel pyroelectric detector

### Description:

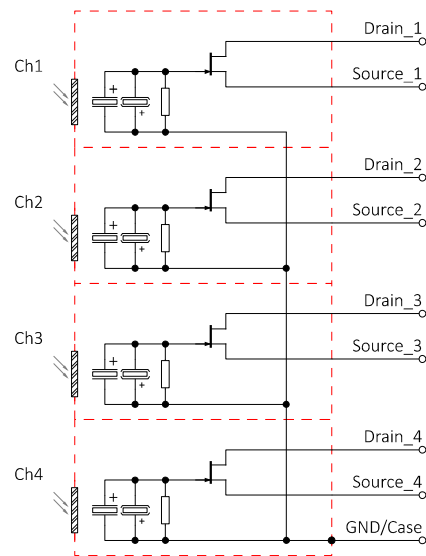
quad channel; TO8 housing; medium chip size; thermal compensation; JFET; voltage mode;



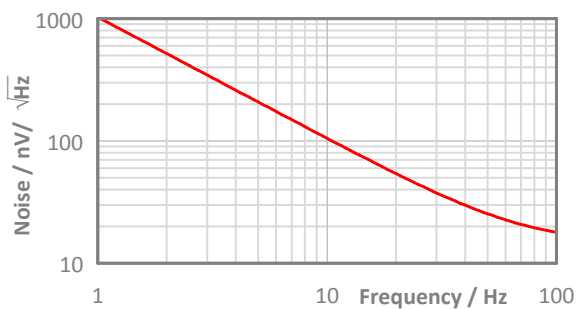
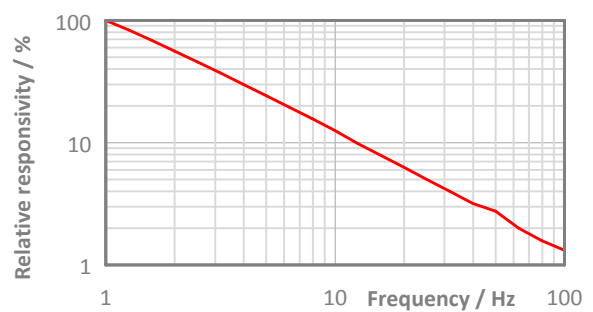
### Housing:



### Pin Assigment:



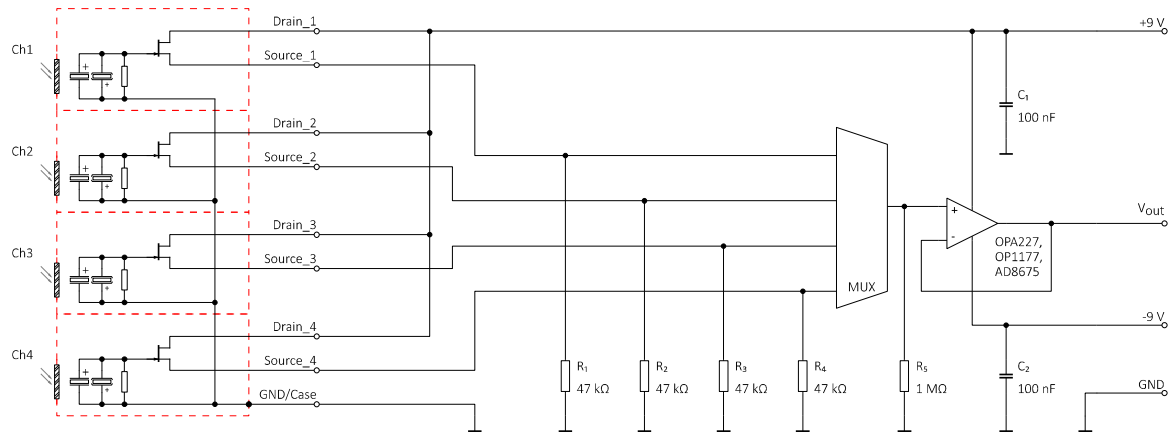
### Frequency Response:



## LIM-214-#

## Planar multi channel pyroelectric detector

### Test Circuit:



### Parameters:

|  |     |  |
|--|-----|--|
| Aperture size  | nom | ø9.5 mm, single channel ø3.5 mm  |
| Element size / type  | nom | 2.0 × 2.0 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)<br>{500 K, 10 Hz, 25 °C, without filter/window} | min | 150 V/W  |
| Noise density (rms)<br>{10 Hz, BW 1 Hz, 25 °C}                             | max | 120 nV/√Hz   |
| Detectivity<br>{500 K, 10 Hz, 1 Hz, 25 °C, without filter/window}          | typ | 4.5E+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 | -40 ... +85 °C   |
| IR filter  |     | Combinations of all InfraTec standard narrow band pass filters are available.<br>Customized filters upon request.  |
| Filter sizes   | nom | Rectangular filters: (4.20 × 4.20) mm ±0.1 mm<br>Circular filters: not applicable<br>Standard thickness: 0.50 mm +0.2/-0.1 mm<br>Thickness range 0.70 ... 1.10 mm on request |
| Field of View  | min | CaF2 or BaF2; 0.4 mm thick: not applicable<br>Silicon substrate; 0.5 mm thick: 40°   |

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