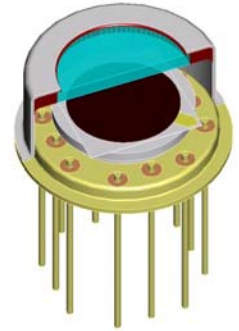


# LIE-329-#

## high performance pyroelectric detector

### Description:

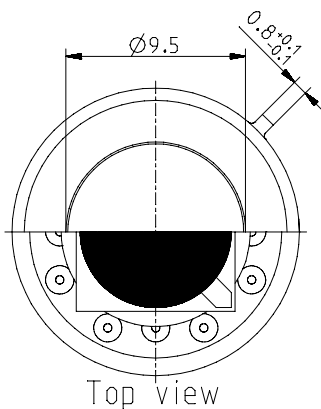
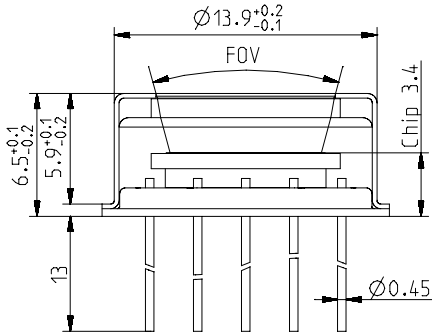
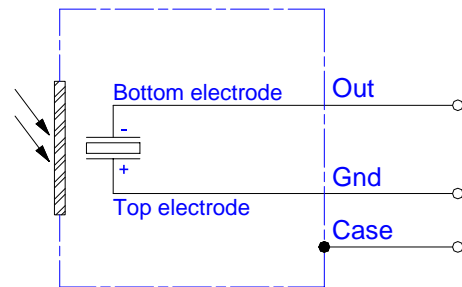
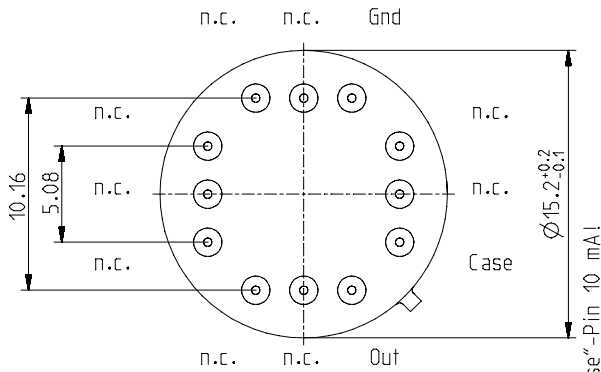
single channel; TO8 housing; large chip size; current mode;



### HOUSING:

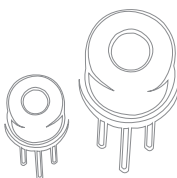
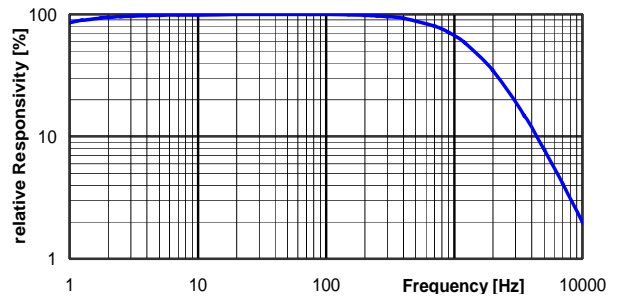
### PIN ASSIGNMENT:

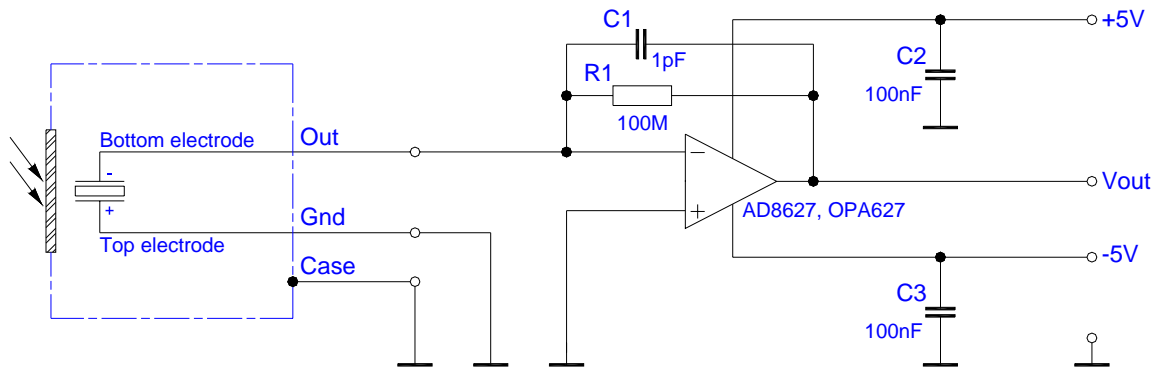
T08 12Pin  
Bottom view



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

### FREQUENCY RESPONSE:



**LIE-329-#****high performance pyroelectric detector****TEST CIRCUIT:****PARAMETERS:**

Aperture size	nom	ø9.5 mm
Element size / type	nom	ø8.0 mm lithium-tantalate with polymer black layer
Thermal time constant	typ	100 ms
Polarity	nom	negative signal by positive IR flux change
Current responsivity (rms) {500K, 10 Hz, 25 °C, without window}	min	1.0 $\mu$ A/W
Modulation frequency	max	4 kHz
Element capacitance {1 kHz, 1 V, 25 °C}	min	600 pF
Element dielectric loss {1 kHz, 1 V, 25 °C}	max	0.003
Potential of detector case	nom	selectable potential between -24 ... +24V to Ground {EMC requires low-impedance coupling}
Operating / Storage temperature	nom	-25 ... +85°C
IR window		CaF <sub>2</sub> , BaF <sub>2</sub> , customized filters upon request.
Filter sizes	nom	rectangular filters: not applicable circular filters: ø10.0 mm $\pm$ 0.1 mm standard thickness: 1.0 mm $\pm$ 0.1 mm
Field of View	min	CaF <sub>2</sub> or BaF <sub>2</sub> ; 1.0 mm thick: 20°