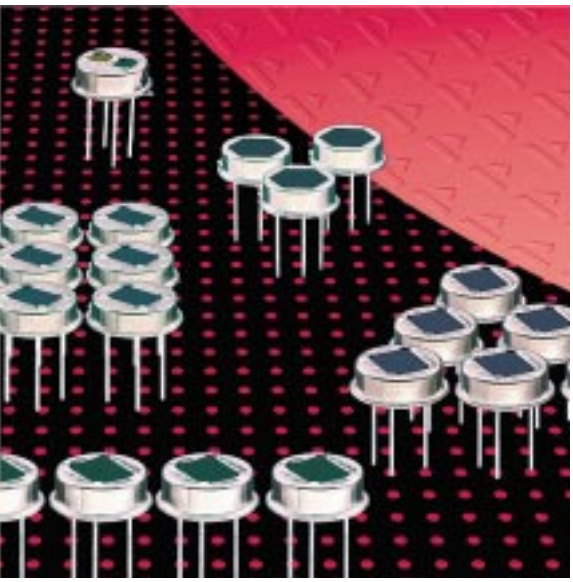
Pyroelectric Infrared Detectors

Twin Element Detector LHi 1448

DATASHEET



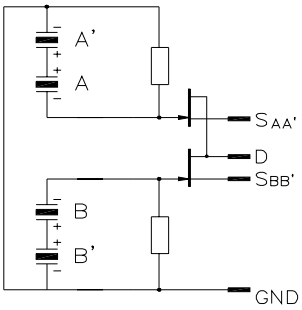
Four elements in two pairs

Two outputs, equal polarity

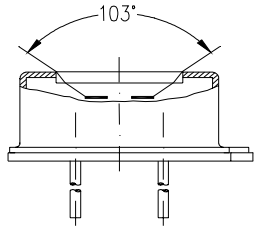
Designed for PIR alarms

The **LHi 1448** pyroelectric infrared detector is designed for high end PIR alarm applications. It includes a twin type pyro-electric ceramic with 4 sensitive elements connected to two FET source follower circuits. Thus it provides for dual channel output . Both channels are of the same polarity.

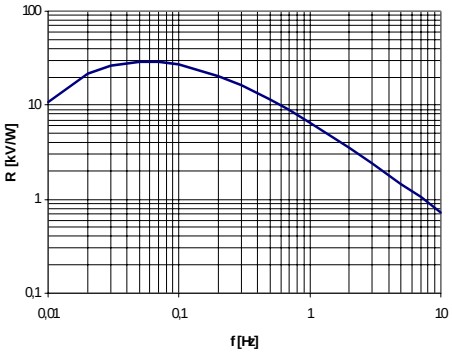
The LHi 1448 detector is available in TO-5 housing with standard infrared filter. It offers excellent common mode performance (match) and low noise.



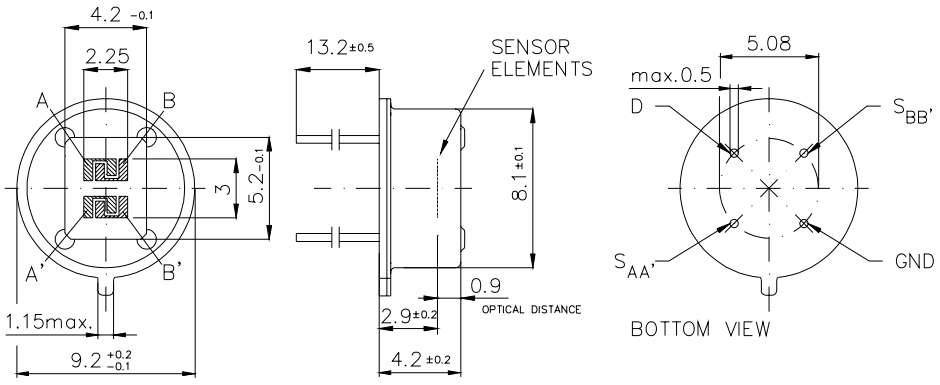
Parameters	LHi 1448				
	min	typical	max	units	condition
Element size		0,953		mm²	(4 elements)
Responsivity	4200	6500		V/W	100°C, 1 Hz
Match		1	15	%	
Noise		30	75	µVpp	25°C, 0,3...10Hz
Offset Voltage	0,2		1,55	V	R_S =47kΩ, 25°C
NEP		$8,6x10^{-10}$	$28x10^{-10}$	W √Hz	1Hz Bw, 100°C, 1 Hz
D*	$3,5x10^{7}$	$11x10^{7}$		cm √Hz/W	1Hz Bw, 100°C, 1 Hz
Output Impedance		5	10	kΩ	R_S =47kΩ, 25°C
Operating Voltage	2		15	V	R_S =47kΩ, 25°C
Field of View, horizontal		103°			unobstructed
vertical		96°			unobstructed
Operating Temp.	-40		85	°C	non permanent
Storage Temperature	-40		75	°C	non permanent



Field of View



Frequency Response



Dimensions in mm

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