



Multi channel pyroelectric Infrared detector

LVF442 series

Description

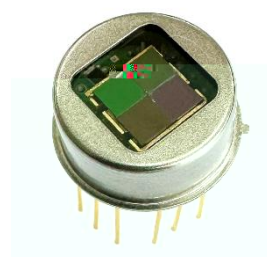
T08

JFET

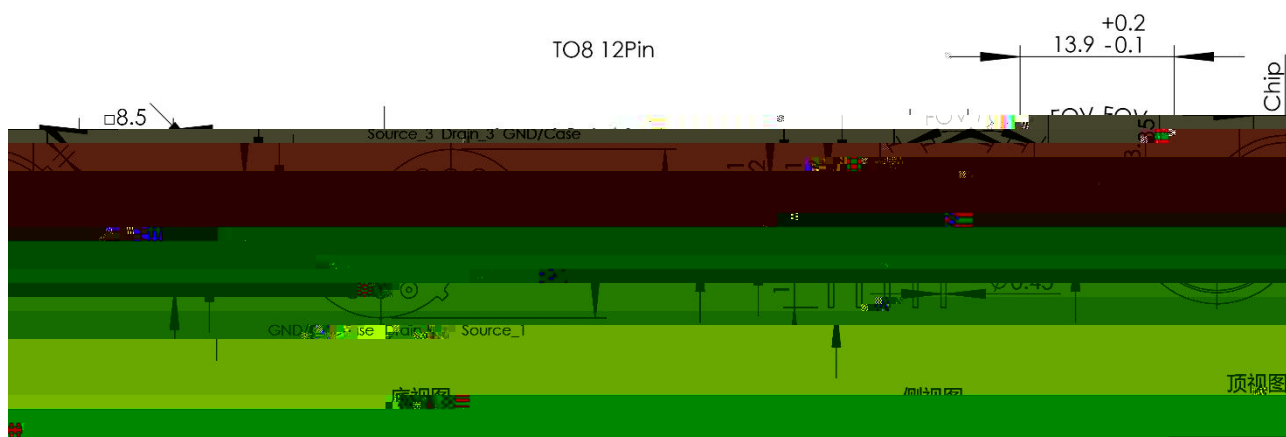
quad channel T08 housing large FOV
thermal compensation low microphone
single power supply JFET
voltage mode

Application

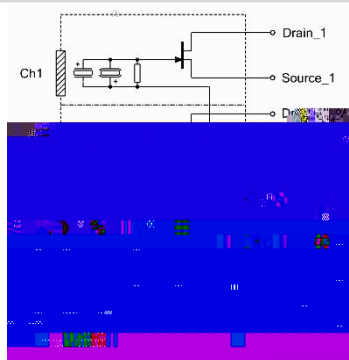
Flame Detection



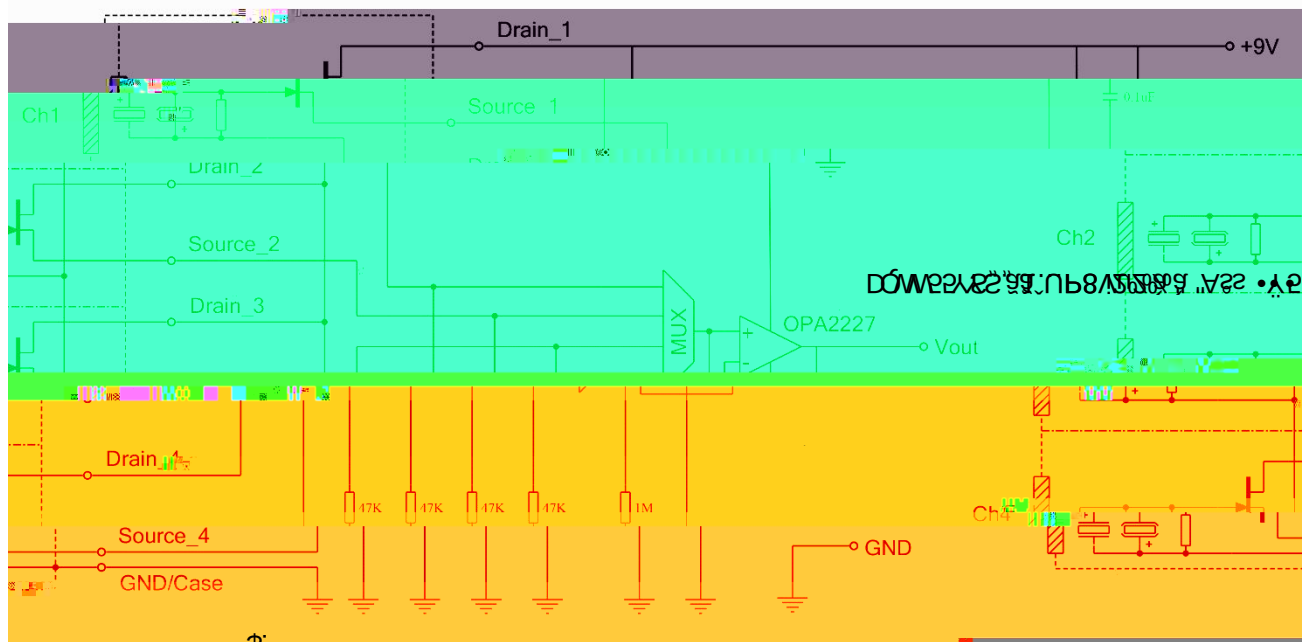
Housing



Pin Assignment



Test Circuit



Parameters

Voltage responsivity(rms) @500 K 10 Hz 25 without filter/window	min	200V/W
Noise density (rms) @10 Hz BW 1 Hz 25	max	130nV/ $\sqrt{\text{Hz}}$
Detectivity @500 K 10 Hz BW 1 Hz 25 without filter/window	typ	4E+08 cm $\sqrt{\text{Hz/W}}$

Aperture size	nom	□ 8.5mm
/	nom	□ 2mm
Element size/type		lithium-tantalate
Thermal time constant	typ	150ms



Offset voltage Source GND @25	-	0.4 1.5V
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/ Operating/Storage temperature	nom	-25 +85
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Filter sizes	nom	□ 3mm
Aperture window/Sizes	nom	Sapphire 12.7mm
1 IR filter Ch1	nom	CWL 5.3 μ m HPB 180nm Si
2 IR filter Ch2	nom	CWL 4.48 μ m HPB 450nm Si
3 IR filter Ch3	nom	CWL 3.85 μ m HPB 180nm Si
4 IR filter Ch4	nom	CWL 2.7 μ m HPB 180nm Si
FOV	min	65 °

Note: Due to technological progress and process improvement, the above parameters are subject to change without prior notice.



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