**Description:**
quad channel; TO8 housing; medium chip size; thermal compensation;
OpAmp; single supply; current mode; feedback 100 GOhm;

**Housing:**

**Pin Assignment:**

**Frequency Response:**

[Graphs and diagrams related to the pyroelectric detector's specifications and performance metrics]
Test Circuit:

Parameters:

- Aperture size: nom, □ 8.5 mm
- Element size / type: nom, 2.0 × 2.0 mm² lithium-tantalate with black layer
- Thermal time constant: typ, 150 ms
- Feedback resistor: nom, 100 GΩ ±20 %
- Feedback capacitor: nom, 0.2 pF ±0.1 pF
- Polarity: nom, Negative signal by positive IR flux change
- Voltage responsivity (rms): (500 K, 10 Hz, 25 °C, without filter/window) min, 80,000 V/W
- Noise density (rms): (10 Hz, BW 1 Hz, 25 °C) max, 55 µV/√Hz
- Detectivity: (500 K, 10 Hz, BW 1 Hz, 25 °C, without filter/window) typ, 6.0E+08 cm√Hz/W
- CMOS operational amplifier: nom, OpAmp4
- Operating supply voltage V+ / V-: 2.7 ... 5.0 V
- Recommended supply voltage V+ / V-: nom, V+ = +3 V
- Supply current (output load 1 MΩ): max, 900 µA
- Offset voltage (25 °C; output load 1 MΩ): V+/2 ±10%
- Optimal output load: nom, 10 kΩ
- Absolute output current: max, 1 mA
- Operating / Storage temperature: nom, -25 ... +85 °C

IR filter: Combinations of all InfraTec standard narrow band pass filters are available. Customized filters upon request.

Filter sizes: Rectangular filters: (2.85 × 2.85) mm ±0.1 mm
Circular filters: not applicable
Standard thickness: 0.50 mm ±0.2/-0.1 mm
Thickness range 0.70 ... 1.10 mm on request

Aperture window: Selected by InfraTec for best channel filter matching

Aperture window sizes: Rectangular filters: (9.00 × 9.00) mm ±0.05 mm
Circular filters: not applicable
Standard thickness: 0.50 mm ±0.1 mm

Field of View: min, 110° (with filter: silicon substrate; 0.5 mm thick and aperture: Si ARC; 0.5 mm thick)

This preliminary datasheet contains information regarding a product InfraTec is considering for production release. Due to this state all data are for information only. InfraTec reserves the right to change these specifications at any time without notification.