

Product Information

Thermopile Infrared Sensor

MLX90247

The MLX90247 Thermopile Infrared Sensor uses a thermopile for measurement of the temperature-difference between object and detector, and a thermistor for measurement of the detector-temperature. Measurement of absolute object temperature is possible through the combination of both outputs. Together with the MLX90313 sensor interface IC, the MLX90247 forms the core of the MLX90601 infrared thermometer modules.

Features and Benefits

- Contact-less temperature measurement based on infrared emission by the object.
- High reliability fully CMOS-compatible process.
- Thermistor integrated in the thermopile sensor chip for optimal tracking of sensor temperature.
- Nitrogen-filled hermetic TO-39 package.
- Coated silicon window for >75% infrared transmission in the wavelength interval [7.5 mm ,13.5 mm]
- The silicon window blocks visible light and short-wavelength infrared light emitted by infrared communication devices.
- Automotive qualified.
- ESD sensitivity: up 8 kV

Applications

- Automotive climate control and windshield anti-fog sensing
- Residential / Industrial climate control
- Medical and bio-instrumentation (possibility for increased accuracy within biomedical temperature ranges)
- Industrial process control
- Consumer applications: microwave oven, hair dryer
- Detection of occupancy or movement



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Automotive ICs

RF & RFID

Intelligent Drivers
and Actuators

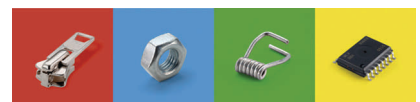
IR Temperature

Hall ICs

CMOS Imaging

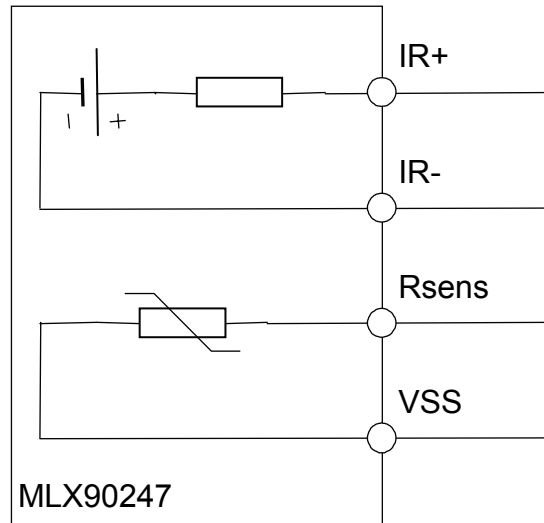
Silicon MEMS

BUS ICs



Small things make a big difference.

Block Diagram



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