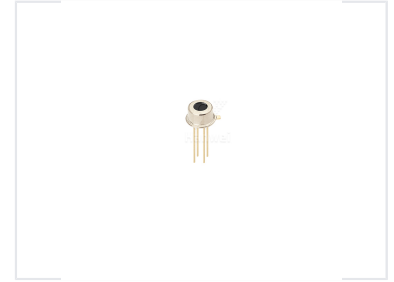


# Thermopile Temperature Sensor for Non-Contact Measurement

This thermopile temperature sensor is designed for non-contact temperature measurement. The sensor utilizes the Seebeck effect to convert thermal energy into an electrical signal, providing accurate temperature readings without direct contact.



## Product Overview

### MRT-511 Thermopile Sensor

The MRT-511 is a high-sensitivity thermopile sensor designed for precise, non-contact temperature measurement. Utilizing the Seebeck effect, it converts thermal energy into electrical signals, making it an ideal component for medical devices, industrial process control, and smart household appliances. Its compact four-pin design ensures easy integration into various electronic systems requiring reliable, non-invasive temperature sensing.

## Technical Specifications

### Response Rate

**124 V/W**

Response Rate

### Field of View

105 Degree

### Detection Rate

$1.0 \times 10^8 \text{ cmHz}^{1/2}/\text{W}$

### Test Conditions

500K, 1Hz, 25°C

## Applications

### Primary Applications

- Non-contact temperature measurement
- Infrared thermometers (ear/forehead)
- Continuous industrial process control
- Household appliances (Microwave, hair dryer, AC)
- Intelligent temperature induction systems
- Human presence detection