

## Highlights

- Sensor output voltage can be directly converted by 10bit or 12bit ADC
- Small size, high reliability, 4-pin SMD package
- Operating Temperature Range:  $-10^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$
- Anti-electromagnetic interference
- 100  $\mu\text{A}$  Low Power and 2.5 V to 5.5 V Wide Supply Voltage Range
- Integrated digital temperature reference with high-precision

## Applications

- Contactless temperature measurement
- Presence detection
- Ear thermometers
- Appliances

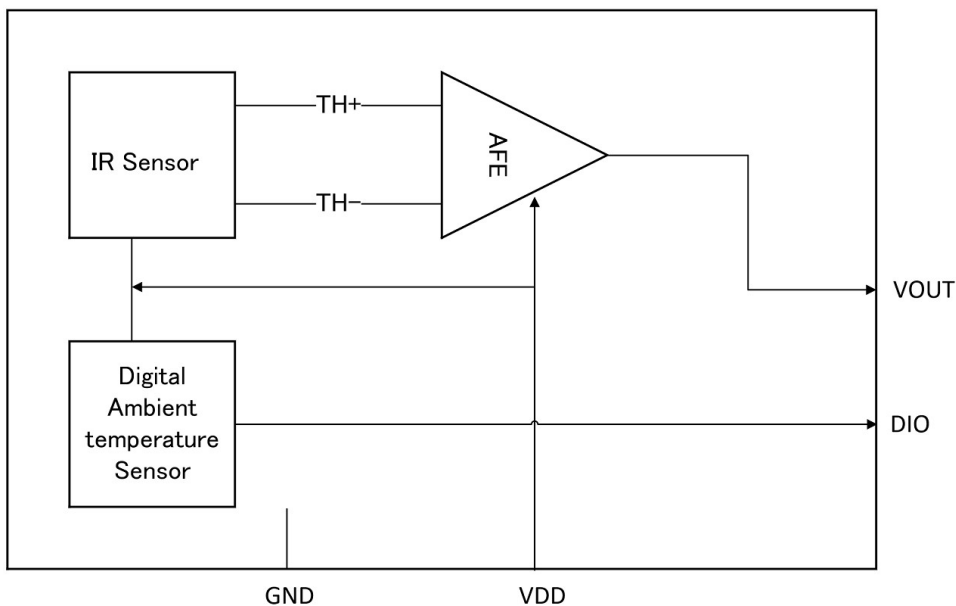
## Technical data JonDeTech infrared thermopile sensor

(VS = 5.0V, TA = +25°C, unless otherwise noted. )

Symbol	Parameter	Conditions.	Min.	Typ	Max.	Unit
VDD	Supply voltage		2.5	3.3	5.5	
VSS	Supply voltage			0		
IDD	Supply current		85	100	115	µA
G	Sensor gain preset			1000		
Voffset	Zero input sensor signal		1.20	1.212	1.23	V
Vnoise	Voltage noise density			25		nV/√Hz
SR	Slew rate			0.4		V/µs
VOH	Swing to VDD rail	RL = 10 kΩ to GND		VDD-50	VDD-200	mV
VOL	Swing to VSS			VSS+5	VSS+50	
PSRR	Power supply rejection ratio		110	130		dB
FOV	Field of View		90	95	100	Deg
TAmb	Ambient temperature		-10		80	°C
	Ambient Temperature accuracy		-1	0.5	1	°C

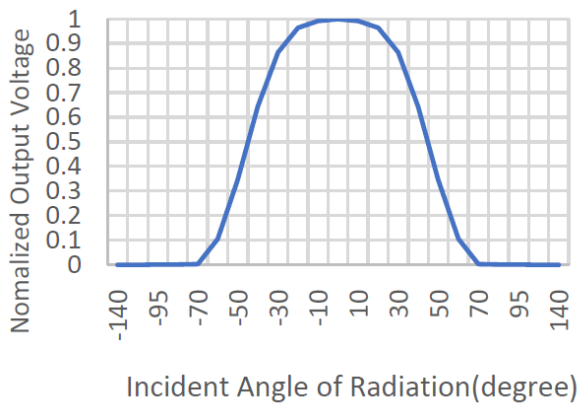
*CAUTION: These devices are sensitive to electrostatic discharge; follow proper IC Handling Procedures.*

## Block Diagram

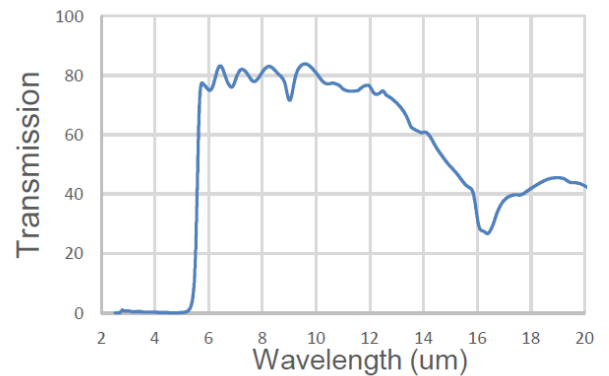


## Optical Characteristics

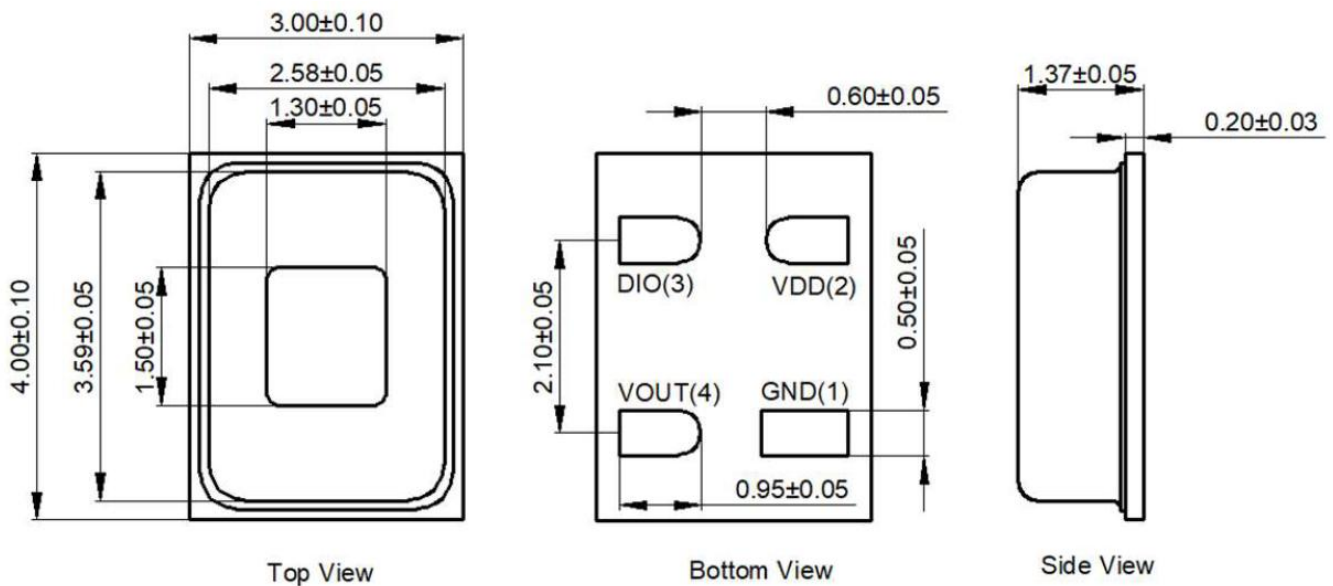
### Optical Characteristics



### Filter Parameters



## Pin Definitions and Descriptions



Symbol	Pin	Pin Type	Conditions
GND	1	P	Connect to GND
VDD	2	P	Power supply input pin, it should connect a 100nF to 1.0uF ceramic cap at least to ground.
DIO	3	IO	Digital interface data input and output pin, Generally it needs a pull-up resistor to VDD in most applications, between 1.0KΩ and 4.7 KΩ (PATA).
VOUT	4	O	Analog interface data output pin (Vobj).