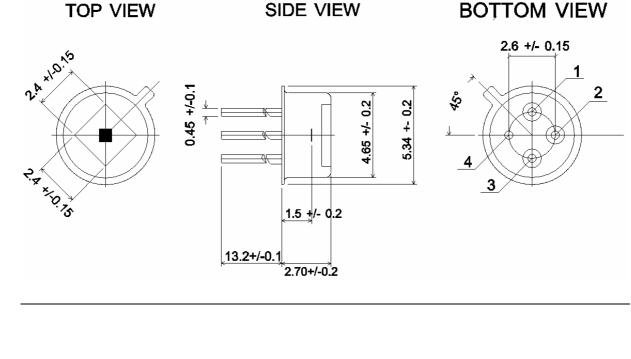
The TS118-3 is a thermopile sensor for use in contactless temperature measurement

Thermopiles are mainly used for conactless temperature measurement in many applications. Their function is to transfer the heat radiation emitted from the objects into voltage output. Major applications are appliances like microwave oven, clothes dryer, automatic cooking, medical devices like ear and fore head thermometer, automotive applications like car climate control, seat occupancy, blind spot alert, black ice detection, consumer products like printer, copier, mobile phone and many industry applications like paper web, plastic parts etc.

	Parameter	Typical	Condition
LP	Package	TO-18	
	Absorber Area	0.7×0.7 mm ²	
15118-3	Resistance of Thermopile	43±8 kΩ	+25 °C
151	TC of Resistance	-0.06±0.04 %/K	$+25^\circ\!\mathrm{C} \rightarrow +75^\circ\!\mathrm{C}$
	Thermopile Voltage	4.4±1.1 mV	+25°C, BB +100°C,DC totally filled field of view
	TC of sensitivity	-0.45±0.08 %/K	$+25^\circ\!\mathrm{C} \rightarrow +75^\circ\!\mathrm{C}$
	Noise Equivalent Voltage	30 nV/Hz ^{1/2}	+25℃
	Rise Time	20±5 ms	τ ₆₃
	Field of View	120°	
	Filter	8-14 μm	band pass
	Operation Temperature	-20 +85℃	
	Operation Temperature	-20 … +100℃	non permanent
	Ambient Temperature Sensor	Ni-RTD	
	Resistance	1000±4 Ω	D°0
	TC of Resistance	6178±150 ppm/K	$0{}^{o}\!C \to +100{}^{o}\!C$
	Connections		
	Pin 1	TP +	
	Pin 2	Ni-RTD	
	Pin 3	TP -	
	Pin 4	GND	

Mechanical Dimensions

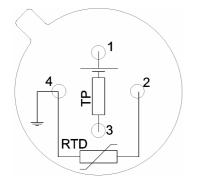


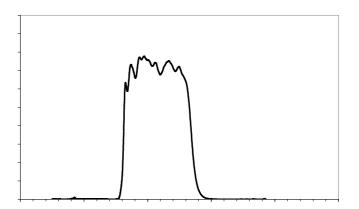
Datasheet TS118-3 Version 07 November 2006

Thermopile Sensor TS118-3

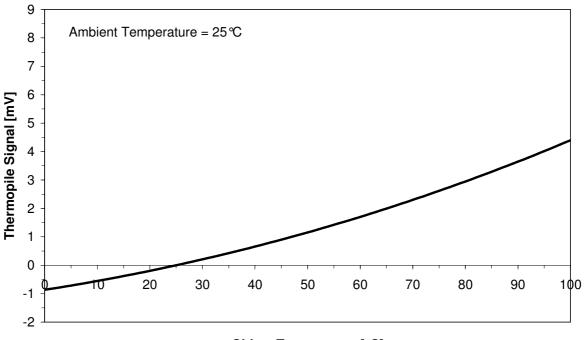
Connections Bottom View

Filter Transmission









Object Temperature [°C]

Additional products with different filters and packages are also available.

Specifications are subject to change without notice !