



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



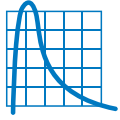
Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





T H E R M O M E T R I C S
A C O M M I T M E N T T O E X C E L L E N C E

ZTP-135BS

Thermometrics Thermopile IR Sensor



This thermopile sensor is used for non-contact surface temperature measuring. The ZTP-135BS model consists of thermo-elements, a flat IR filter, and a thermistor for temperature compensation in a hermetically-sealed TO-46 (18) package. There is also a variety of filters available to help maximize performance in specific applications.

Applications

- Industrial IR thermometer
- Ear thermometers
- Non-contact thermometers

Features

- Small-size sensor (TO-46 package)
- Included ambient temperature (thermistor) sensor for compensation
- Fast response time
- Low cost
- High sensitivity

Amphenol
Advanced Sensors

Specifications

Thermopile Chip

Parameter	Limits			Units	Condition
	Min	Typ	Max		
Chip Size		1.8 x 1.8		mm ²	
Diaphragm Size		1.4 x 1.4		mm ²	
Active Area		0.7 x 0.7		mm ²	
Internal Resistance	42	60	78	kΩ	25 °C
Resistance T.C.			0.12	%/ °C	
Responsivity	38	54	70	V/W	500K, 1Hz
Responsivity T.C.		-0.03		%/ °C	
Noise Voltage		32		nV rms	R.M.S., 25 °C
NEP		0.59		nW/Hz ^{1/2}	500K, 1Hz
Detectivity		1.18 E08		cmHz ^{1/2} /W	500K, 1Hz
Time Constant		25		ms	

Thermistor

Parameter	Limits			Units	Condition
	Min	Typ	Max		
Resistance	97	100	103	kΩ	Tol.:3%, @25 °C
Beta - Value	3901	3940	3979	K	Tol.:1%, Defined at @25 °C/50 °C

Absolute Maximum Ratings

Operating Temperature

-20°C ~ 100°C

Storage Temperature

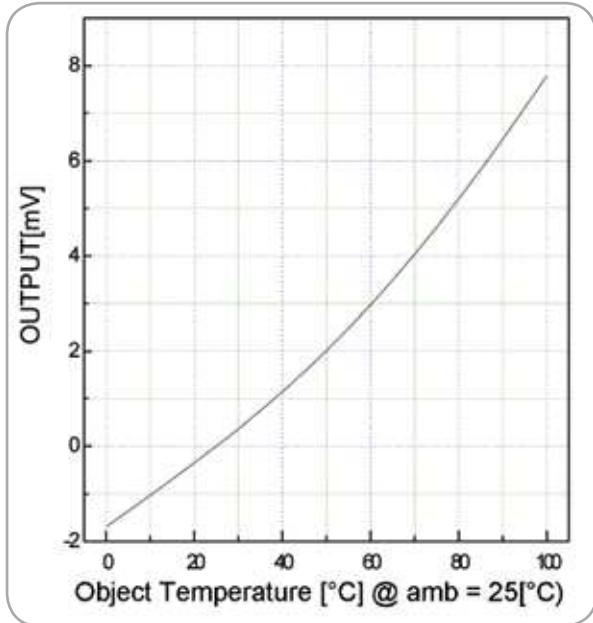
-40°C ~ 120°C

Thermistor Resistance (R-T Table)

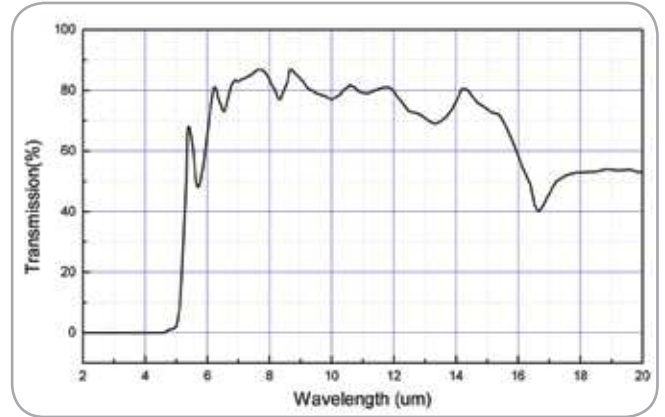
Tamb (°C)	Rmin (kΩ)	Rcent (kΩ)	Rmax (kΩ)
-20	893.6	931.5	970.3
-15	677.5	705.3	733.6
-10	518.0	538.5	559.4
-5	399.2	414.5	430.0
0	310.1	321.5	333.1
5	242.5	251.2	259.9
10	191.0	197.6	204.2
15	151.5	156.5	161.6
20	120.8	124.7	128.6
25	97.00	100.0	103.0
30	78.14	80.65	83.15
35	63.30	65.40	67.50
40	51.56	53.32	55.09
45	42.21	43.69	45.19
50	34.72	35.98	37.25
55	28.70	29.77	30.85
60	23.83	24.74	25.66
65	19.88	20.66	21.44
70	16.65	17.32	17.99
75	14.00	14.58	15.16
80	11.82	12.32	12.82
85	10.022	10.45	10.88
90	8.526	8.896	9.275
95	7.278	7.601	7.930
100	6.235	6.516	6.804

Typical ZTP-135BS Characteristic Data

Sensitivity

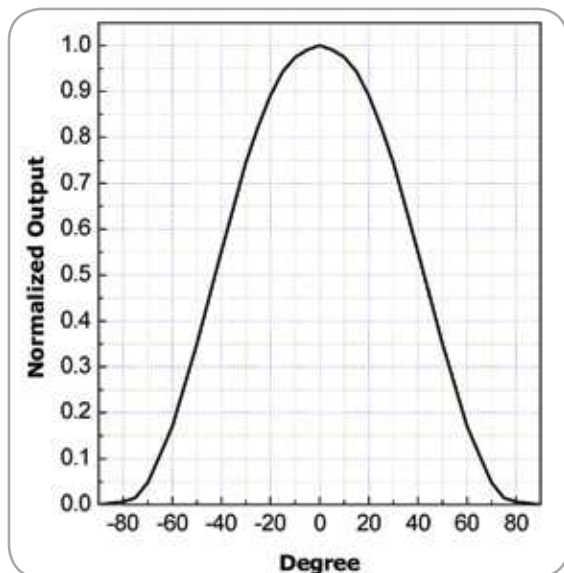


Filter Transmission Data

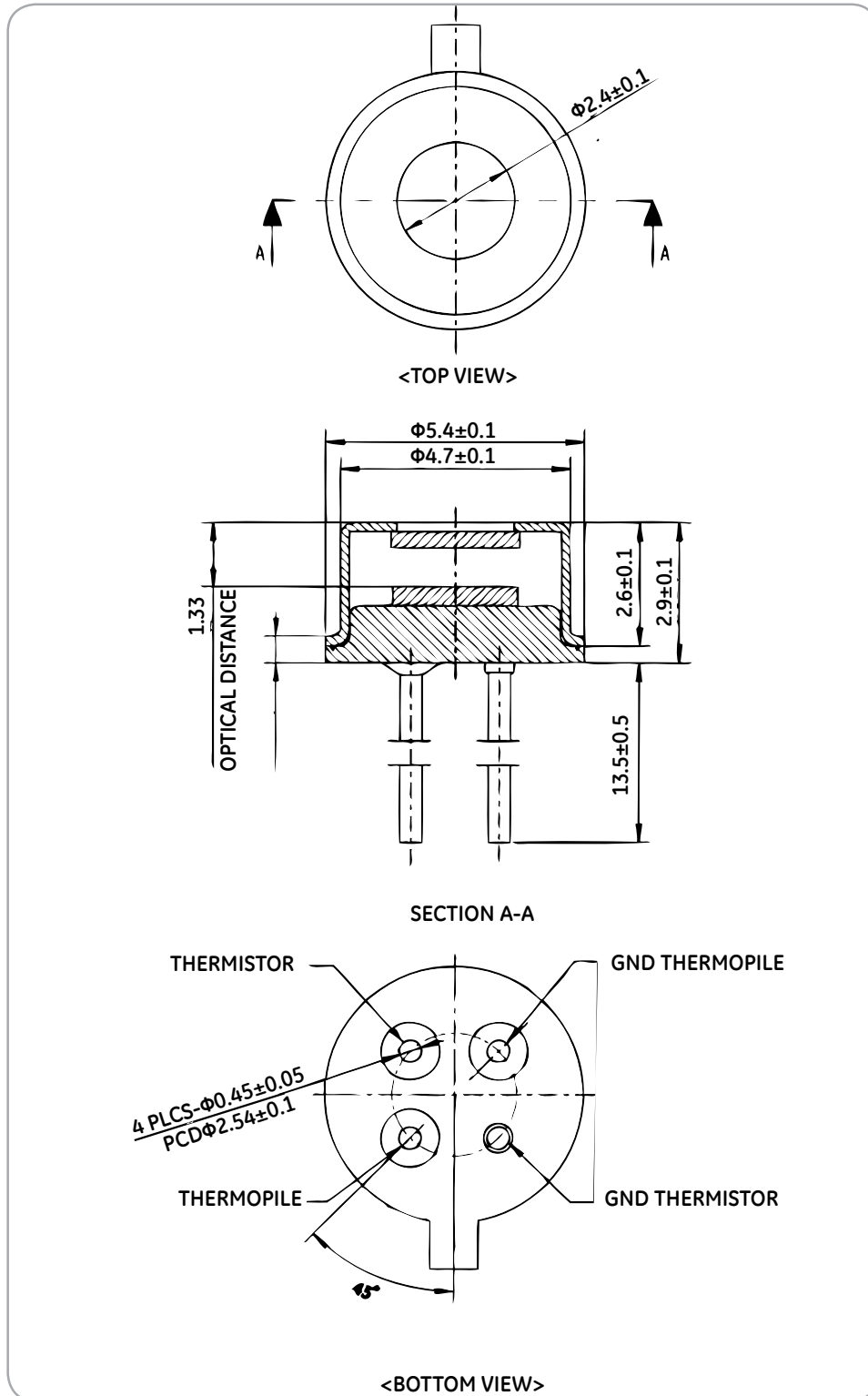


Field of View

Parameter	Limits			Units	Condition
	Min	Typ	Max		
Field of View	80	85	90	Degree	50% of Maximum Output



Outline of Sensor Package and Pin Arrangement (unit: mm)



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