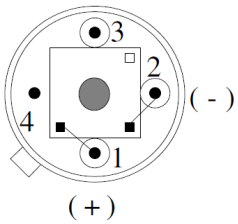
One Channel Thermopile
TS80T5HT180

High Temperature Thermopile Single Detector in Thin Film Technology with wide range filter for measuring of infrared radiation in the range of 8µm - 14µm.

Type	TS80T5HT180	
Diameter active Area	0.5	mm
Aperture	0.5	mm
Number of Junctions	80	
Resistance (at 25°C)	20 ± 8	kΩ
Resistance-T.C.	-0.03	%/K (+25°C – 85°C)
Sensitivity-T.C.	-0.4	%/K (+25°C – 85°C)
Noise Voltage (at 25°C)	18	nV/Hz
DC Output Voltage *1) *2)	2.2	mV
DC-Sensitivity *1) *2)	295	V/W
Time Constant $t_{(0\text{-}63\%)}$ *1)	typ. 30	ms
Backfill Gas *3)	Nitrogen / Krypton	other gases on customer's request
D* (500K black body, DC) *1) *2)	7.2×10^8	$cm/Hz^{1/2}/W$
Noise Equivalent Power *1) *2)	typ. 0.74	$nW/Hz^{1/2}$
Filter	Bandpass 8-14 µm	other filters on customer's request
Operation Temperature	-20 … +180	°C
Mass	~1	g
Housing	TO39 (modified)	
Guarantee	5 years	

*1) without considering of window material on air
*2) blackbody T=500K, H=38µW/mm²
*3) For the case of Kr-filling increase of DC Output Voltage, DC Sensitivity, Specific Detectivity and Time Constant by the factor 1.8. Decrease of NEP by the same factor. Other gases on the customer's request.

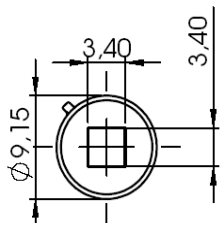
View Top

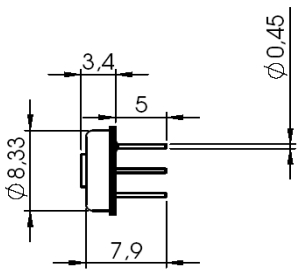


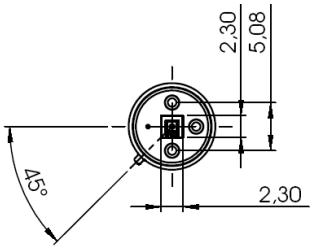
Connections:
Pin 1 Output +
Pin 2 Output -
Pin 3 NC
Pin 4 Case

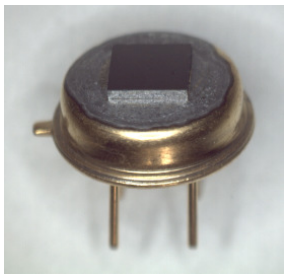
Order Information:

TS80T5HT180 IR-Detector Art.-Nr.: 4592.67-C.11 → backfilled with N_2
4592.67-C.12 → backfilled with Kr









Micro-Hybrid Electronic GmbH

Heinrich-Hertz-Straße 8
07629 Hermsdorf

Tel.: +49 366 01 / 5 92 – 100
Fax: +49 366 01 / 5 92 – 110

Email: contact@micro-hybrid.de
Web: www.micro-hybrid.de

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