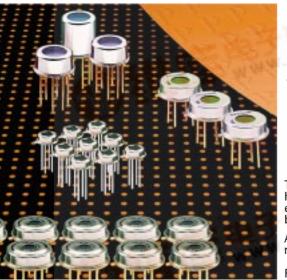
Thermopile Infrared Detectors

Quad Thermopile

TPS 4339



Four individual thermopiles with different infrared bandpass filters in TO 5 housing for NDIR gas sensing – up to 4 gases possible

Thermistor temperature reference included

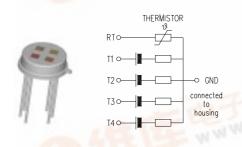
Internal aperture to avoid cross talk

Standard gas filter sets for reference, CO, hydrocarbon, CO,

The quad thermopile sensor consists of four single thermopile chips mounted in a TO 5 housing with a thermistor as temperature reference. The window size is $1.5 \times 1.5 \text{ mm}^2$ each. Due to the overall small sensor size the construction of a very compact equipment becomes possible.

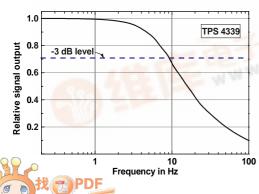
Applications in automotive exhaust gas control, multiple gas detection for the safety product market or air quality monitoring

For further information please refer to the TPS 4339 product note



Relative signal	1.0	TPS	54339						24	WW
	0.0	-80	-60	-40	-20	0 e angle	20 in deg	40 ree	60	80
	Relative signal	Relative signal - 8.0	Relative signal - 0.0 - 0.0 - 0.0 - 0.0 - 0.0 - 0.2 -	0.8 - TPS4339 0.8 - Implication of the second of the secon	0.8 - TPS4339 0.8 - eliminate of the property	0.8 - TPS4339 0.8 - O.6	0.8 - TPS4339 0.8 - TPS4339 0.8 - TPS4339 0.8 - TPS4339 0.9 - TPS4339 0.9 - TPS4339 0.9 - TPS4339 0.8 - TPS4339 0.0 - TPS4339 0.0 - TPS4339 0.0 - TPS4339 0.0 - TPS4339 0.	0.8 - TPS4339 0.8 - TPS4339 0.6 - O.4 - O.2	0.8 TPS4339 0.8 0.6 0.6 0.6 0.0 0.2 0.0 0.	0.8 TPS4339 0.8 0.6 0.6 0.4 0.20 0 20 40 60

Parameters		TPS	4339		场网
		typical		units	condition
Sensitive area	4x	0.7 × 0.7		mm²	absorbing area
Window size		1.5 x 1.5		mm²	each channel
DC sensitivity		75		V/W	500K BB w/o filter
Resistance		75		$\mathbf{k}\Omega$	
Noise		21		nV/√Hz	r.m.s. 300K
NEP		0.28		nW/√Hz	500K BB w/o filter
D*		1.6 x 10 ⁸			500K BB w/o filter
TC of sensitivity		0.02		%/K	
TC of resistance		0.02		%/K	
Time constant		25		ms	
Operating temperature	-40		100	°C	non permanent
Storage temperature	-40		100	°C	non permanent
Thermistor resista	nce	100		kΩ	25°C
beta		3964		K	25°C/100°C
Field of view	4x	60		W.O.L	at 50% points



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max. 9.3