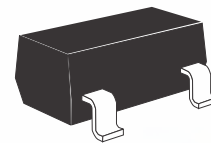


ZNI1000

TEMPERATURE SENSOR

DESCRIPTION

The ZNI1000 is a Ni thin film Resistance Temperature Detector (RTD), specified to DIN 43760. The high temperature coefficient offers higher signal outputs than other RTD's, which results in higher accuracy with smaller temperature changes.



SOT23

FEATURES

- Resistance at 0°C: 1000Ω
- SOT23 package
- Available on 8mm tape

APPLICATIONS

- Automotive Electronic
- Circuit Protection
- Temperature compensation
- Temperature measurement

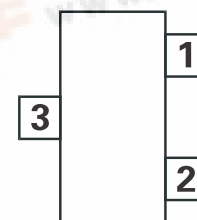
ORDERING INFORMATION

DEVICE	REEL SIZE	TAPE WIDTH	QUANTITY PER REEL
ZNI1000TA	7"	8mm	3000 units
ZNI1000TC	13"	8mm	10000 units

DEVICE MARKING

- ZNI

PINOUT



Top View

Pin 1 - Ni1000
Pin 2 - Ni1000
Pin 3 - need a good thermal contact for a short response time

ZNI1000

ABSOLUTE MAXIMUM RATINGS.

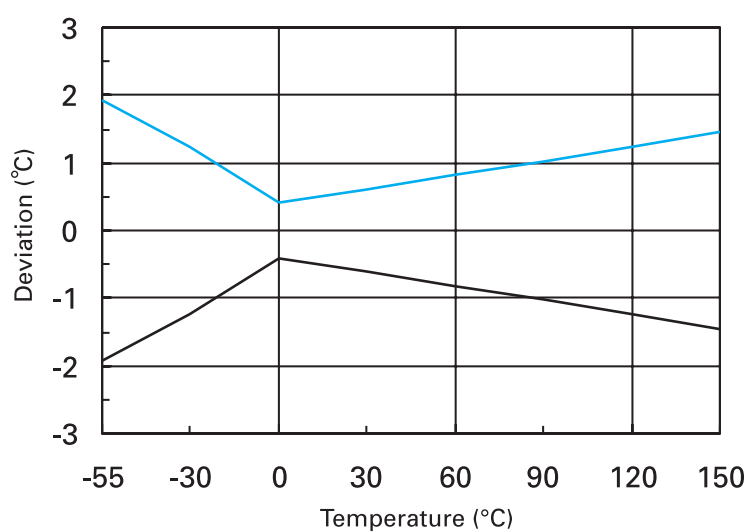
PARAMETER	SYMBOL	LIMIT	UNIT
Continuous Current	I_{CC}	4	mA
Total power dissipation	P_{TOT}	20	mW
Operating Temperature Range	T_{amb}	-55 to +150	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS
Resistance 0°C	R_0	-	1000	-	Ω	$T=0^\circ\text{C}$, $I<1\text{mA}$
Resistance 100°C	R_{100}	-	1618	-	Ω	$T=100^\circ\text{C}$, $I<1\text{mA}$
Tolerance Class B		-	$\pm(0.4+0.028 \times T)$	-		-55 to 0°C
Tolerance Class B		-	$\pm(0.4+0.007 \times T)$	-		0 to 150°C

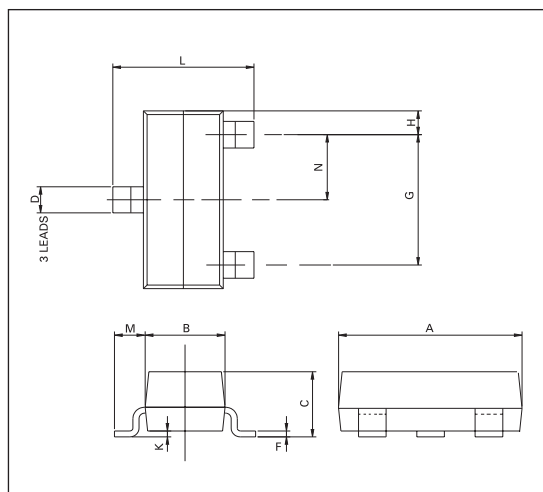
CHARACTERISTICS ACCORDING TO DIN43760

R_0 Resistance at 0°C B 6.650×10^{-6}
 T Temperature in °C C 2.805×10^{-11}
 A 5.485×10^{-3} D -2.000×10^{-17}
 $R(T) = R_0 \times (1 + A \times T + B \times T^2 + C \times T^4 + D \times T^6)$

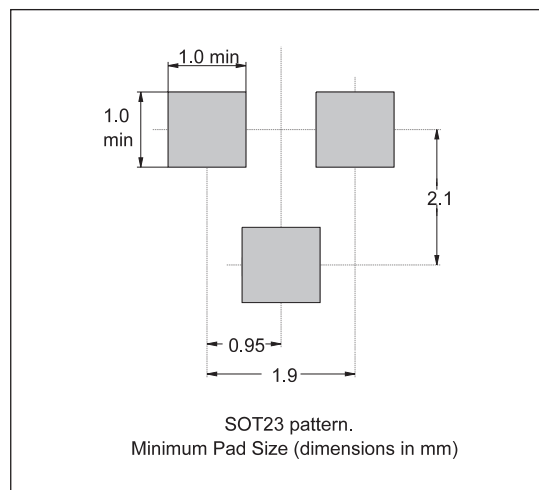


ZNI1000

PACKAGE OUTLINE



PAD LAYOUT



CONTROLLING DIMENSIONS IN MILLIMETRES APPROX CONVERSIONS INCHES.

PACKAGE DIMENSIONS

DIM	MILLIMETRES		INCHES		DIM	MILLIMETRES		INCHES	
	MIN	MAX	MIN	MAX		MIN	MAX	MIN	MAX
A	2.67	3.05	0.105	0.120	H	0.33	0.51	0.013	0.020
B	1.20	1.40	0.047	0.055	K	0.01	0.10	0.0004	0.004
C	—	1.10	—	0.043	L	2.10	2.50	0.083	0.0985
D	0.37	0.53	0.015	0.021	M	0.45	0.64	0.018	0.025
F	0.085	0.15	0.0034	0.0059	N	0.95 NOM		0.0375 NOM	
G	1.90 NOM		0.075 NOM		φ	10° TYP		10° TYP	

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