

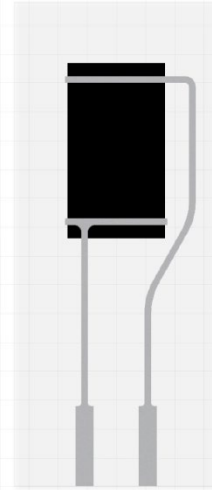
**Printed Temperature Sensor
TSX1**

TSX1
Datasheet

Features

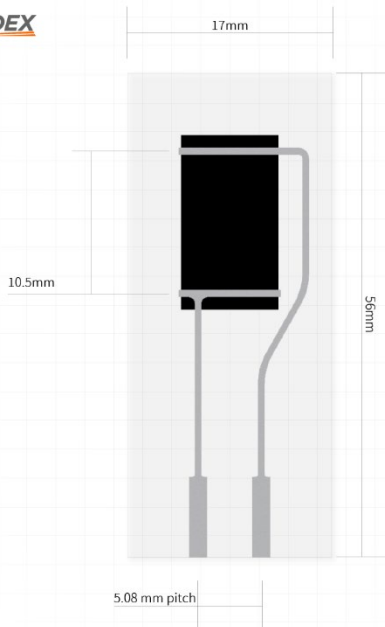
- Contact-base temperature sensing
- Ultra-thin membrane sensing area
- Stable resistive temperature behavior
- Consistent sensing behavior
- Compatible with standard readout circuits
- Conformal integration on flat or slightly curved surfaces.

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Technical specifications

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Sensor	TSX1
Length	40mm
Width	17mm
Active area	10mm x 8mm
Pin spacing	5.08mm
Nominal thickness	0.52mm
Substrate	PET
Sensor style	Close
Connector	2-pin male soldering tab
Thickness	0.73mm
Width	1.6mm

Note: Ceradex offer customize sensor solution for application-specific integration. Including the sensor’s dimension, single-zone or multi-zone sensing area, connector options, waterproofs. Contact us for more information.

Characteristics

Temperature range	20°C - 60°C
R/R _{REF} - T curve	< ±10%
Operation temperature	-20°C - +80°C

Durability

Operating temperature performance		
Cold	-40°C/1hr	< 5%
Hot	+60°C/1hr	<15%
Storage temperature performance		
Cold	-40°C/5hr	< 10%
Hot	+80°C/5hr	<15%
High Humidity	60°C/90RH/5hr	≤ ±10%
Thermal shock	-40°C ~ 80°C	>150 cycles

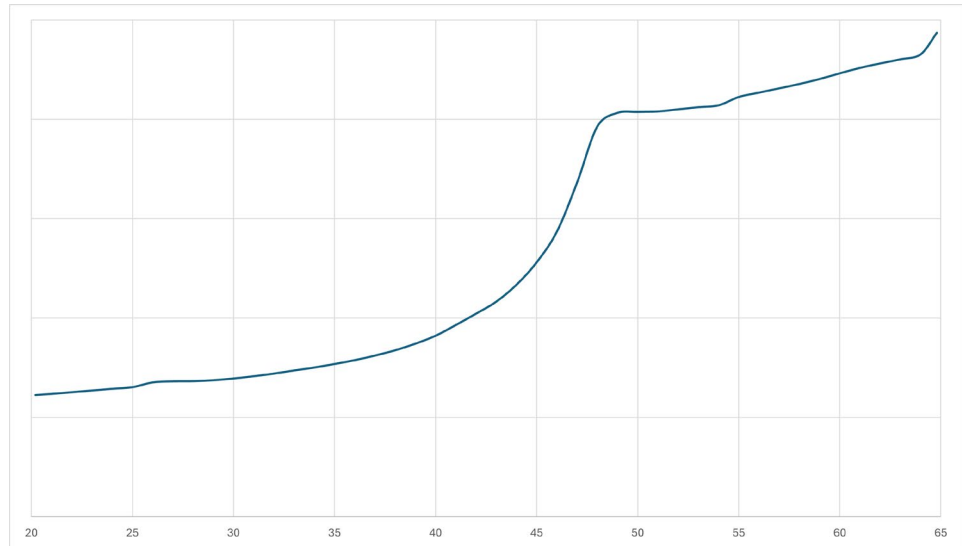
Safety

Maximum driving power	< 240mW
Electromagnetic interference (EMI)	No
Electrostatic discharge (ESD)	No

Response curve

R vs Temperature correlation

$$W(T) = R(T) / R(T_{ref})$$



Note: Customize specification including membrane film, dimension, and structure setting can influence base performance. Response curve base on 30RH humidity environment.

Applications

Surface Monitoring

Direct surface temperature measurement on flat or attached areas.

Device Integration

Thin temperature sensing integration for compact devices and assemblies.

Area Thermal Mapping

Localized or distributed temperature sensing for surface thermal mapping.

Thermal Management

Monitoring heat behavior for system optimization and overheating prevention.

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