

# Temperature sensor (RTD)

## Series TRS-C and TRS-S

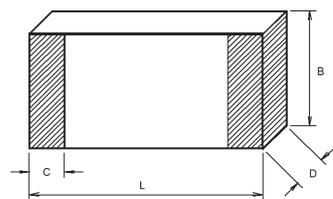
### Features

- RTD chip resistors made in thin film technology
- For soldering or wire bonding
- Sputtered resistor surface passivated
- Several substrate materials available (depending on the required thermal resistance)
- RoHS – compliant

### Dimensions TRS-C

Package	metric	L	B	D	C
RR0805	RR2012M	2.0±0.1	1.25±0.1	0.55±0.1	0.4±0.2
RR1206	RR3216M	3.2±0.2	1.6±0.15	0.55±0.1	0.5±0.2

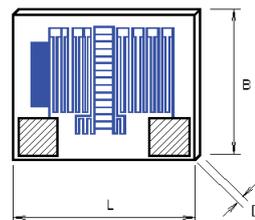
(L=length, B=width, D=thickness, C=Width wrap around contact in mm)  
Metallization: solderable, tin plated



### Dimensions TRS-S

Package	L	B	D
0.5 x 0.5 mm <sup>2</sup>	0.5±0.05	0.5±0.05	0.26±0.05
0.76 x 0.76 mm <sup>2</sup>	0.76±0.05	0.76±0.05	0.26±0.05
2.0 x 1.0 mm <sup>2</sup>	2.0±0.05	1.0±0.05	0.26±0.05

(L=length, B=width, D=thickness in mm)  
metallization: solderable, wire bondable



### Technical Data (depending on size)

Type	TRS-C 0805	TRS-C 1206
Load capacity P <sub>70</sub> (P <sub>125</sub> = 0 mW)	62.5 mW/mm <sup>2</sup>	125 mW/mm <sup>2</sup>

TRS-S
25 mW/mm <sup>2</sup>

Resistor and TCR tolerances		TRS-C 0805	TRS-C 1206
100 Ω 1, 5, 10 kΩ	TCR (ppm/K) TCR-tolerance (ppm/K) R-Tol. 25 °C	+3,300; +3,850 ± 500; ± 200 ± 0.5/1/5 %	+3,300; +3,850 ± 500; ± 200 ± 0.5/1/5 %
50 kΩ	TCR (ppm/K) TCR-tolerance (ppm/K) R-Tol. 25 °C		+3,300; +3,850 ± 500; ± 200 ± 0.5/1/5 %

TRS-S
+3,300; +3,850 ± 500; ± 200 ± 0.5/1/5 %
+3,300; ± 200 ± 0.5/1/5 %

Other data on request.



## Technical Data

	TRS-C	TRS-S
Operating temperature range	- 55 °C ... + 125 °C	- 55 °C ... + 125 °C
Solderability <sup>1)</sup>	245 °C, 3 s	The client/user has to protect the bonded unit sufficient against environmental influences.
Soldering heat resistance <sup>2)</sup>	260 °C, 10 s	
Isolating voltage	250 VDC	100 VDC

Long Term Stability	TRS-C	TRS-S
Storage 125 °C / 1,000 h	<± 0.35 %	<± 0.25 %
Storage 155 °C / 1,000 h	<± 0.5 %	<± 0.25 %
Continuous power P <sub>70</sub> / 70 °C / 1,000 h	<± 0.5 %	<± 0.25 %
Temperature/Humidity (56 d / 40 °C / 96 %)	<± 0.75 %	-

Data unless otherwise specified: DIN 45912 (CECC 40401)

1) DIN IEC 68 T2-20, Ta Meth. 1; 2) DIN IEC 68 T2-20, Ta Meth. 1A

## Ordering Data

Example:  $\underbrace{\text{TRS-C 1206}}_{\text{Type}} - \underbrace{10 \text{ K}}_{\text{Unit}} \pm \underbrace{0.5 \%}_{\text{Tolerance}} - \underbrace{\text{TC 3850}}_{\text{TC}} \pm \underbrace{200}_{\text{Tolerance TC}} - \underbrace{\text{taped}}_{\text{form of delivery, if not in bulk}}$

## Customized Versions

- Layout adjustment
- The parameters are specified by the customer.

## Delivery form

- TRS-C
  - Bulk
  - Tape & Reel acc. DIN IEC 60286-3 (tape with 8mm, reel diameter 180mm)
- Min. order quantity bulk: 100 units per value
- Min. order quantity tape & reel: 500 units per value
- TRS-S
  - Waffle Pack
  - Wafer inked
  - Wafer diced on foil

## Sales and Development

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