

# High-Precision-Resistor-Networks for wire bonding [Applications up to 200 °C]

## Series SRN-HT

### Features

- Thin Film Technology applied on oxidized Si-substrate or ceramic
- Standard and customized models
- Advantage is the excellent ratio and tracking data
- Qualified for functional LASER adjustment
- RoHS – compliant

### Technical Data

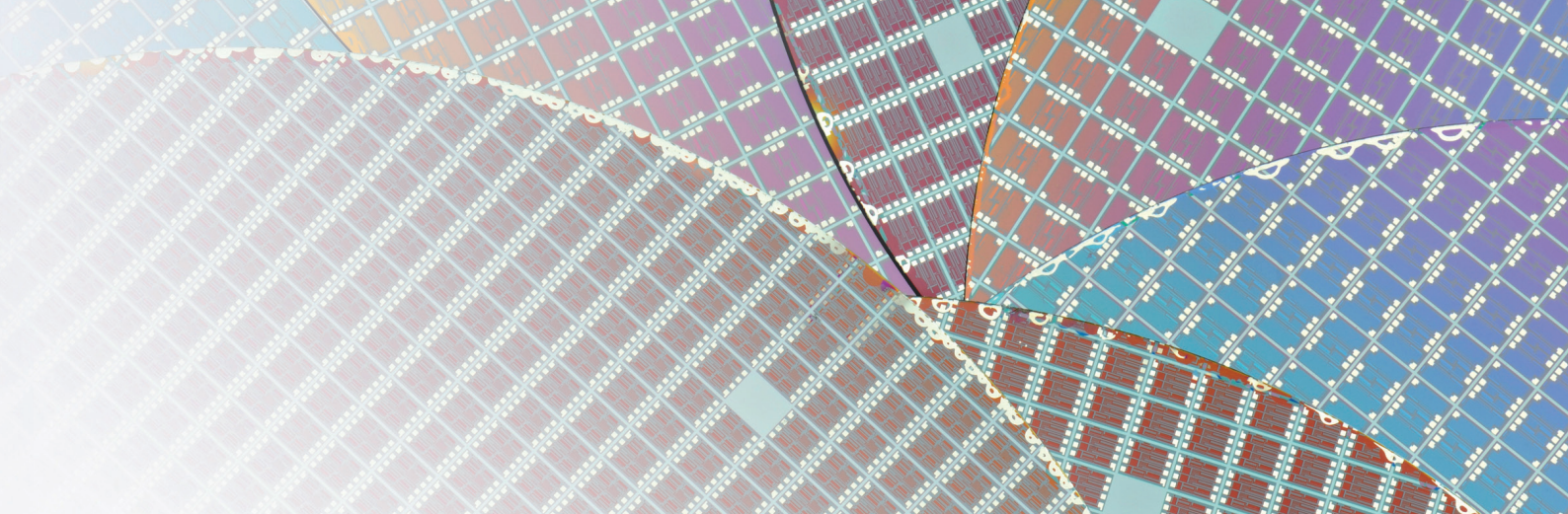
Load Capacity P <sub>70</sub>		25 mW/mm <sup>2</sup> 10 mW/mm <sup>2</sup> for extremely high precision applications
Range of Values		5 Ω ... 10 MΩ (depending on chip size)
Isolating Voltage		100 VDC Silicon, 250 VDC Ceramic
R-Tol.	absolute ratio	± 0.05; ± 0.1; ± 0.25; ± 0.5; ± 1 % < 0.025; < 0.05; < 0.1 %
TCR	absolute tracking	± 5 <sup>1)</sup> ; ± 10; ± 25; ± 50 ppm/K 0.5 <sup>1)</sup> ; 1; 2; 5; 10 ppm/K
Operating Temperature Range		- 55 °C ... + 200 °C

The client/user has to protect the bonded unit sufficient against environmental influences.

1) Temperature range 0 ... + 75 °C, all resistors have the same value

Other data on request!

Long Term Stability	R-Tol. < 0.25 %	R-Tol. ≥ 0.25 %
Storage 200 °C / 1,000 h – absolute	< ± 0.20 %	< ± 0.25 %
Storage 200 °C / 1,000 h – ratio	< 0.05 %	< 0.05 %



## Dimensions

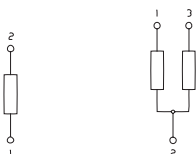
- **Chip Size:**  
min.:  $0.50 \times 0.50 \text{ mm}^2$   
max.:  $6.00 \times 10.00 \text{ mm}^2$
- **Substrate Thickness:**  
 $0.260 \text{ mm} \pm 0.05$  (Si)  
 $0.380 \text{ mm} \pm 0.05$  (Ceramic)
- **Bondpad Dimensions:**  
min.:  $0.10 \times 0.10 \text{ mm}^2$
- **Bondpad Metalization:**  
Aluminum or Gold  
(US-/TS-bondable)

## Schematics (examples)

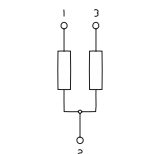
**Dimension:**

**$0.50 \times 0.50 \text{ mm}^2$  and**

**$0.76 \times 0.76 \text{ mm}^2$**

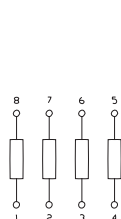


Single  
Resistor

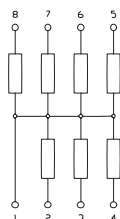


Voltage/  
Current Divider

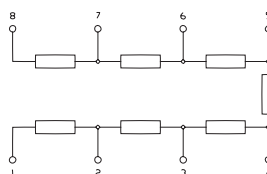
**$\geq 1.60 \times 2.00 \text{ mm}^2$**



Single  
Resistor



Current  
Divider



Voltage  
Divider

## Customized Versions

- Most schematics can be realized.
- Resistor data according to client's specification.
- Customized layout is designed in our development department for best product data.
- we recommend ceramic substrates for operating frequencies above 100 kHz.

## Ordering Information

- Resistor value and tolerance (absolute & ratio)
- TCR (absolute & tracking)
- Schematic
- Load capacity
- Chip dimensions
- Operating temperature range
- Specials
- Quantity, expected delivery date

## Delivery form

- Waffle pack
- Wafer inked
- Wafer diced on foil

## Sales and Development

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