

SMT-Precision-R-Networks

Type: SCN

Sizes: SOT 23, SOT 223, SO 8, SO 14, SO 16, SO 20L

Features:

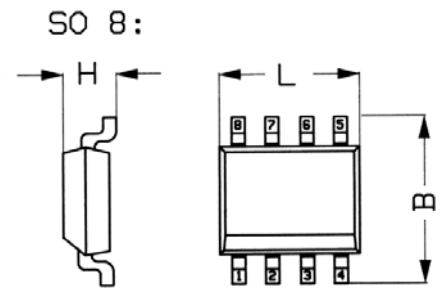
- Thinfilm (NiCr) on passivated Si- or Alumina-substrate
- Standard types and custom networks
- Relative-data (tolerance, TCR and stability) much closer than realizations with single resistors



Sizes:

Size	L max.	B max.	H max.	n
SOT 23	2.7	2.5	1.1	3
SOT 223	6.5	7.0	1.6	4
SO 8	5.1	6.7	2.0	8
SO 14	8.9	6.7	2.0	14
SO 16	10.2	6.7	2.0	16
SO 20L	13.0	10.7	2.65	20

Example



L = Length, B = Width, H = Height (in mm; detail drawings on request)

Versions:

Standard: Single resistors, resistor bridges, voltage dividers and current dividers (details on request)
Custom specific: Every circuitry is feasible

Inquiry and ordering data:

- Size
- Substrate material (Si, Al₂O₃)
- Number and connection of resistors
- Resistance values
- Tolerance and TCR (absolute and relative)
- Power rating
- Temperature range
- Special requirements
- Packaging (bulk, tape/reel, magazine)

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Technical data – depending on size:

Size	SOT 23	SOT 223	SO 8	So 14	SO 16	SO 20L
Power rating P_{70} ($P_{125} = 0 \text{ mW}$)	125	250	250	250	250	500
Resistance range	10R ... 1M	10R ... 5M	10R ... 5M	10R ... 10M	10R ... 10M	10R ... 10M

Technical data - general:

Working voltage U_{-}, U_{eff}	on silicon substrate: 100 V on alumina substrate: 250 V
Tolerance (%) absolute relative	$\pm 0.05; \pm 0.1; \pm 0.25; \pm 0.5; \pm 1$ $< 0.025^{1); < 0.05; < 0.1$
TCR (ppm/K) absolute relative	$\pm 5^{1); \pm 10^{2); \pm 25, \pm 50$ $< 1^{1); < 2^{2); < 5, < 10$
Operating temperature range	- 55°C ... + 125°C
Storage temperature range	- 55°C ... + 155°C
Climatic category acc. to EN 60068-1	25/125/56
Solderability acc. EN 60068-2-58 (lead free and lead containing)	250°C 3s
Max. soldering temperature acc. EN 60068-2-58	260°C 10s

Long term stability		Tol. $\leq 0.25\%$		Tol. $> 0.25\%$	
		1000 h	10000 h	1000 h	10000 h
Storage 125°C/1000h	absolute relative	$< 0.02\%$ $< 0.005\%$	$< 0.06\%$ $< 0.02\%$	$< 0.05\%$ $< 0.01\%$	$< 0.1\%$ $< 0.05\%$
Storage 155°C/1000h	absolute relative	$< 0.1\%$ $< 0.05\%$	$< 0.2\%$ $< 0.1\%$	$< 0.2\%$ $< 0.1\%$	$< 0.5\%$ $< 0.2\%$
Damp heat (56d/40°C/96%)	absolute relative	$< 0.05\%$ $< 0.01\%$		$< 0.10\%$ $< 0.05\%$	

¹⁾ Temperature range 0 ... + 70°C

²⁾ Temperature range -25 ... + 125°C