

SCN-Series

SMT-Precision-Resistor-Networks

Sizes: SOT 223, SO 8, SO 14, SO 16, SO 18L, SO 20L, SSOP 14 ... 20

Features:

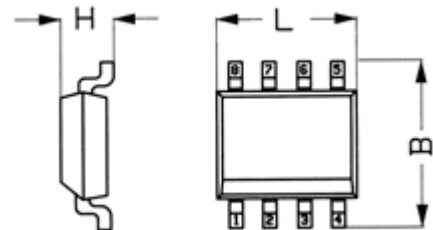
- Thin film (NiCr) applied on passivated Si- or Alumina-substrate
- Standard types and customized networks
- Wide variety of schematics is realizable
- Excellent ratio and tracking data
- Relative-data (tolerance, TCR and stability) much closer than realizations with single resistors
- Alumina substrate for operating frequencies above 10 kHz



Sizes:

Size	L nom.	B nom.	H nom.	Pitch	Pins
SOT 223	6.5	7.0	1.8	2.3	4
SO 8	4.90	6.0	1.75	1.27	8
SO 14	8.65	6.0	1.75	1.27	14
SO 16	9.90	6.0	1.75	1.27	16
SO 18L	11.58	10.31	2.54	1.27	18
SO 20L	12.80	10.31	2.54	1.27	20
SSOP 14	4.90	6.0	1.75	0.635	14
SSOP 16	4.90	6.0	1.75	0.635	16
SSOP 18	8.65	6.0	1.75	0.635	18
SSOP 20	8.65	6.0	1.75	0.635	20

Example:



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

Inquiry and ordering data:

- Size
- Substrate material (Si, Al₂O₃)
- Number and schematic of resistors
- Resistance values
- Tolerance and TCR (absolute and relative)
- Power rating
- Operating temperature range
- Special requirements
- Packaging (tube, tape/reel, bulk)
- Quantity

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Technical data – depending on size:

Size	SOT 223	SO 8	SO 14	SO 16	SO 18L	SO 20L	SSOP 14-20
Power rating $P_{70} (P_{125} = 0 \text{ mW})$	250	250	250	250	400	500	250

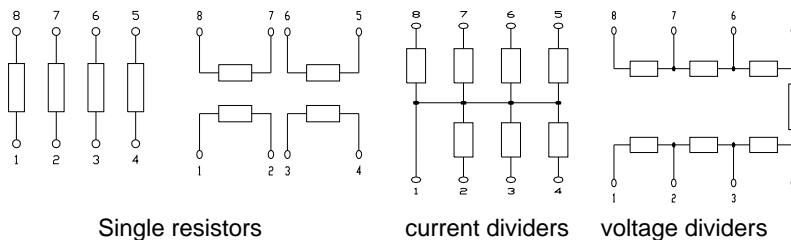
Technical data - general:

Resistance range	5R ... 5M	
Isolating voltage	on silicon substrate: 100 V DC on alumina substrate: 1000 V DC	
Tolerance (%) absolute relative	± 0.05 ; ± 0.1 ; ± 0.25 ; ± 0.5 ; ± 1 < 0.025; < 0.05; < 0.1	
TCR (ppm/K) absolute relative	$\pm 5^1$, ± 10 , ± 25 , ± 50 < 0.5^1 , < 1, < 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. to EN 60068-2-58	245°C, 3s	
Max. soldering temperature acc. to 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	< 0.02%	< 0.06%	< 0.05%	< 0.1%
Continuous Load 70°C	relative	< 0.005%	< 0.02%	< 0.01%	< 0.05%
Storage 155°C/1000h	absolute	< 0.1%	< 0.2%	< 0.2%	< 0.5%
	relative	< 0.05%	< 0.1%	< 0.1%	< 0.2%
Damp heat (56d/40°C/96%)	absolute	< 0.05%		< 0.10%	
	relative	< 0.01%		< 0.05%	

¹⁾ Temperature range 0 ... + 75°C

Schematics (examples):



Customized versions:

- Every circuitry is feasible
- Layout is designed in our development department for best product data