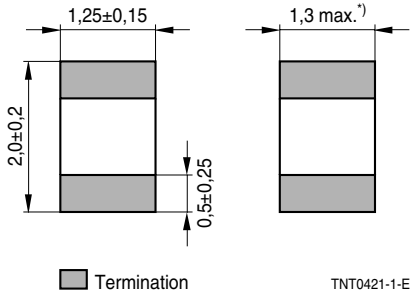
SMD

Applications

- Temperature measurement and compensation in
  - mobile phone applications (e.g. battery pack, TCXO, LCD)
  - data systems
  - automotive electronics

Features

- Multilayer SMD NTC with inner electrodes
- Ni barrier termination (AgNiSn)
- High accuracy: ± 5 % in resistance, *B* value tolerance down to ± 1,5 % available on request
- Excellent long-term ageing stability in high-temperature and high-humidity environment
- Superior resistance stability during soldering (change <1 %)



* Slimline version 0,9 max. available upon request

Dimensions in mm
Approx. weight 13 mg

Options

Alternative resistance ratings, resistance tol. < 5 % and *B* value tol. < 3 % available on request

Delivery mode

Blister tape, 180-mm reel, PU: 3000 pcs (standard); 330-mm reel, PU: 12000 pcs (on request)

Climatic category (IEC 60068-1)		55/125/56	
Max. power at 25 °C (on PCB)	P_{25} [1)]	210	mW
Resistance tolerance	$\Delta R_N/R_N$	± 5 %, ± 10 %	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	± 3 %	
Dissipation factor (on PCB)	δ_{th} [1)]	approx. 3,5	mW/K
Thermal cooling time constant (on PCB)	τ_c [1)]	approx. 10,0	s
Heat capacity	C_{th} [1)]	approx. 35,0	mJ/K

R_{25}	No. of *R*/*T* characteristic	$B_{25/50}$	$B_{25/85}$	$B_{25/100}$	Ordering code
Ω		K	K	K	
47	8501	3470	3540	3550	B57411V2470+062
100	8501	3470	3540	3550	B57411V2101+062
150	8501	3470	3540	3550	B57411V2151+062
220	8501	3470	3540	3550	B57411V2221+062
330	8501	3470	3540	3550	B57411V2331+062

1) Depends on mounting situation

SMD

R_{25}	No. of R/T characteristic	$B_{25/50}$	$B_{25/85}$	$B_{25/100}$	Ordering code
Ω		K	K	K	
470	8502	3940	3980	4000	B57421V2471+062
680	8502	3940	3980	4000	B57421V2681+062
1,0 k	8502	3940	3980	4000	B57421V2102+062
1,5 k	8502	3940	3980	4000	B57421V2152+062
10 k	8502	3940	3980	4000	B57421V2103+062
2,2 k	8503	4390	4470	4500	B57431V2222+062
3,3 k	8503	4390	4470	4500	B57431V2332+062
4,7 k	8503	4390	4470	4500	B57431V2472+062
6,8 k	8503	4390	4470	4500	B57431V2682+062
10 k	8503	4390	4470	4500	B57431V2103+062
15 k	8503	4390	4470	4500	B57431V2153+062
22 k	8503	4390	4470	4500	B57431V2223+062
33 k	8503	4390	4470	4500	B57431V2333+062
47 k	8503	4390	4470	4500	B57431V2473+062
68 k	8503	4390	4470	4500	B57431V2683+062
100 k	8503	4390	4470	4500	B57431V2104+062

+: J for $\Delta R_N/R_N = \pm$ 5 %
K for $\Delta R_N/R_N = \pm$ 10 %

SMD

Reliability data

SMD NTC thermistors are tested in accordance with IEC 60068. The parts are mounted on a standardized PCB in accordance with IEC 60539-1.

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typical)	Remarks
Storage in dry heat	IEC 60068-2-2 JIS C 0021	Storage at upper category temperature *T*: (125 ± 2) °C *t*: 1000 h	< 2 %	
Storage in damp heat, steady state	IEC 60068-2-3 JIS C 0022	Temperature of air: (40 ± 2) °C Relative humidity of air: (93 +2/–3) % Duration: 56 days	< 2 %	
Rapid temperature cycling	IEC 60068-2-14 JIS C 0025	Lower test temperature: – 55 °C Upper test temperature: 125 °C Number of cycles: 100	< 2 %	
Endurance		P_{max}: 210 mW *T*: (65 ± 2) °C *t*: 1000 h	< 2 %	
Solderability	IEC 60068-2-58 JIS C 0054	Solderability: (215 ± 3) °C / (3 ± 0,3) s (235 ± 5) °C / (2 ± 0,2) s Resistance to soldering heat: (260 ± 5) °C / (10 ± 1) s		95 % of terminations wetted
Resistance drift after soldering		Reflow soldering profile Wave soldering profile	< 1 %	

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