



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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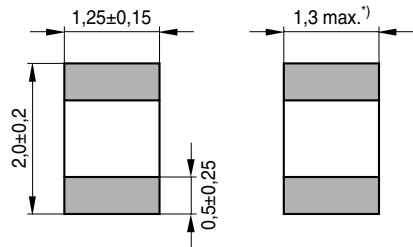


Applications

- 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: $\pm 5\%$ in resistance, B value tolerance down to $\pm 1,5\%$ available on request
- Excellent long-term ageing stability in high-temperature and high-humidity environment
- Superior resistance stability during soldering (change $< 1\%$)



■ Termination

TNT0421-1-E

* 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	$\Delta R_N/R_N$	$\pm 5\%, \pm 10\%$	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	$\pm 3\%$	
Dissipation factor (on PCB)	$\delta_{th}^{1)}$	approx. 3,5	mW/K
Thermal cooling time constant (on PCB)	$\tau_c^{1)}$	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



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 $\Delta R_N/R_N = \pm 10\%$


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 $T: (125 \pm 2) ^\circ\text{C}$ $t: 1000 \text{ h}$	< 2 %	
Storage in damp heat, steady state	IEC 60068-2-3 JIS C 0022	Temperature of air: $(40 \pm 2) ^\circ\text{C}$ Relative humidity of air: $(93 +2/-3) \%$ Duration: 56 days	< 2 %	
Rapid temperature cycling	IEC 60068-2-14 JIS C 0025	Lower test temperature: $-55 ^\circ\text{C}$ Upper test temperature: $125 ^\circ\text{C}$ Number of cycles: 100	< 2 %	
Endurance		P_{max} : 210 mW $T: (65 \pm 2) ^\circ\text{C}$ $t: 1000 \text{ h}$	< 2 %	
Solderability	IEC 60068-2-58 JIS C 0054	Solderability: $(215 \pm 3) ^\circ\text{C} / (3 \pm 0,3) \text{ s}$ $(235 \pm 5) ^\circ\text{C} / (2 \pm 0,2) \text{ s}$ Resistance to soldering heat: $(260 \pm 5) ^\circ\text{C} / (10 \pm 1) \text{ s}$		95 % of terminations wetted
Resistance drift after soldering		Reflow soldering profile Wave soldering profile	< 1 %	

Herausgegeben von EPCOS AG

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This brochure replaces the previous edition.

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Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.