

SMD
Applications

- Temperature measurement and compensation in
 - hybrid circuits
 - data systems
 - telecom systems
 - automotive electronics

Features

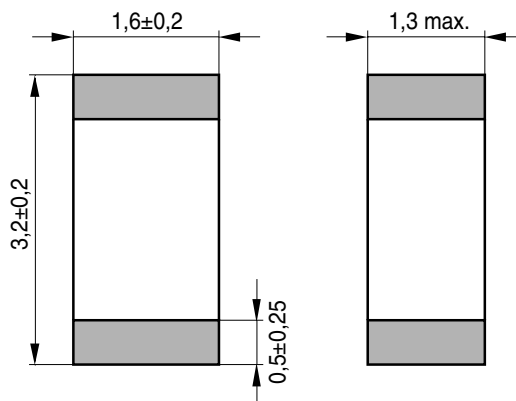
- Silver palladium termination (AgPd)
- Cost-effective
- Suitable for wave and reflow soldering

Options

Alternative resistance ratings and resistance tolerance
< 5% available on request

Delivery mode

Blister tape, 180-mm reel, PU: 4000 or 2000 pcs, depending on chip thickness



■ Termination

TNT0398-F

Dimensions in mm/Approx. weight 18 mg

Climatic category (IEC 60068-1)		55/125/21	
Max. power at 25 °C (on PCB)	P_{25}	300	mW
Resistance tolerance	$\Delta R_N/R_N$	$\pm 5\%$, $\pm 10\%$, $\pm 20\%$	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	$\pm 3\%$	
Dissipation factor (on PCB)	$\delta_{th}^{1)}$	approx. 5	mW/K
Thermal cooling time constant (on PCB)	$\tau_c^{1)}$	approx. 10	s
Heat capacity	$C_{th}^{1)}$	approx. 50	mJ/K

R_{25}	No. of R/T characteristic	$B_{25/50}$	$B_{25/85}$	$B_{25/100}$	Ordering code
Ω		K	K	K	
2,2 k	1308	3010	3040	3060	B57621C0222+062
3,3 k	1309	3430	3500	3520	B57621C0332+062
4,7 k	1309	3430	3500	3520	B57621C0472+062
10 k	1010	3470	3510	3530	B57621C0103+062
15 k	1008	3480	3550	3560	B57621C0153+062
22 k	1008	3480	3550	3560	B57621C0223+062
33 k	2003	3930	3960	3980	B57621C0333+062
47 k	2001	3860	3890	3920	B57621C0473+062
68 k	2001	3860	3890	3920	B57621C0683+062

+: J for $\Delta R_N/R_N = \pm 5\%$
 K for $\Delta R_N/R_N = \pm 10\%$
 M for $\Delta R_N/R_N = \pm 20\%$

1) Depends on mounting situation



R_{25} Ω	No. of R/T characteristic	$B_{25/50}$ K	$B_{25/85}$ K	$B_{25/100}$ K	Ordering code
100 k	4901	3870	3930	3950	B57621C0104+062
150 k	2903	4120	4190	4200	B57621C0154+162
220 k	2903	4120	4190	4200	B57621C0224+062
330 k	1014	4090	4210	4250	B57621C0334+062
470 k	1014	4090	4210	4250	B57621C0474+062

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

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

M for $\Delta R_N/R_N = \pm 20\%$

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 $T: (125 \pm 2)^\circ\text{C}$ $t: 1000\text{ h}$	< 3 %	
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: 21 days	< 3 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14 JIS C 0025	Lower test temperature: -55°C Upper test temperature: 125°C Number of cycles: 10	< 3 %	
Endurance		P_{max} : 300 mW $T: (65 \pm 2)^\circ\text{C}$ $t: 1000\text{ h}$	< 5 %	
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	< 5 %	

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Unternehmenskommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

☎ ++49 89 636 09, FAX (0 89) 636-2 26 89

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Corporate Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

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