



Applications

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

Features

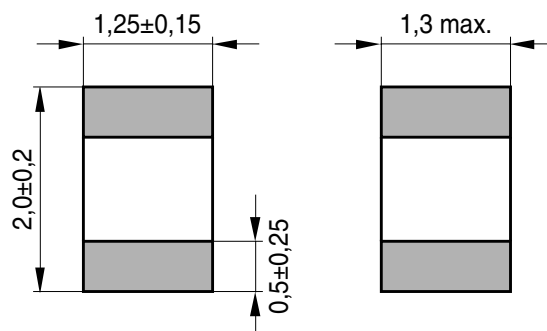
- Silver palladium termination (AgPd)
- Cost-effective
- Suitable for wave and reflow soldering

Options

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

Delivery mode

Blister tape, 180-mm reel, PU: 4000 pcs



Termination

TNT0397-7-E

Dimensions in mm

Approx. weight 13 mg

Climatic category (IEC 60068-1)		55/125/21	
Max. power at 25 °C (on PCB)	P_{25}	210	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. 3,5	mW/K
Thermal cooling time constant (on PCB)	$\tau_c^{(1)}$	approx. 10	s
Heat capacity	$C_{th}^{(1)}$	approx. 35	mJ/K

R_{25}	No. of R/T characteristic	$B_{25/50}$	$B_{25/85}$	$B_{25/100}$	Ordering code
Ω		K	K	K	
220	3207	3060	3090	3100	B57620C0221+062
330	3204	3190	3250	3250	B57620C0331+062
470	3205	3270	3290	3300	B57620C0471+062
680	3206	3420	3440	3450	B57620C0681+062
1 k	3206	3420	3440	3450	B57620C0102+062
2,2 k	1304	3250	3280	3300	B57620C0222+062
4,7 k	1010	3470	3510	3530	B57620C0472+962

+: 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
10 k	1011	3660	3730	3730	B57620C0103+062
22 k	2003	3930	3960	3980	B57620C0223+062
47 k	2101	4030	4080	4100	B57620C0473+062
100 k	2903	4120	4190	4200	B57620C0104+162
220 k	2904	4230	4280	4300	B57620C0224+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 $T: (125 \pm 2)^\circ\text{C}$ $t: 1000\text{ h}$	$< 3\%$ / $< 6\%$ ¹⁾	
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} : 210 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	$< 5\%$	

1) The higher value applies to 220 Ω –1 k Ω types.