


**Applications**

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

**Features**

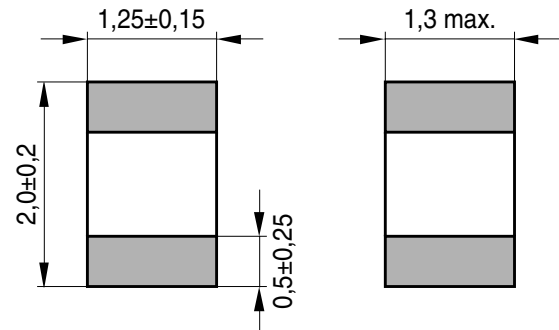
- Silver palladium termination (AgPd)
- Cost-effective
- Suitable for wave and reflow soldering

**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
$\Omega$		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



$R_{25}$	No. of R/T characteristic	$B_{25/50}$	$B_{25/85}$	$B_{25/100}$	Ordering code
$\Omega$		K	K	K	
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 % <sup>1)</sup>	
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: $-55^\circ\text{C}$ Upper test temperature: $125^\circ\text{C}$ Number of cycles: 10	< 3 %	
Endurance		$P_{\text{max}}$ : 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  $\Omega$ –1 k $\Omega$  types.