


Applications

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

Features

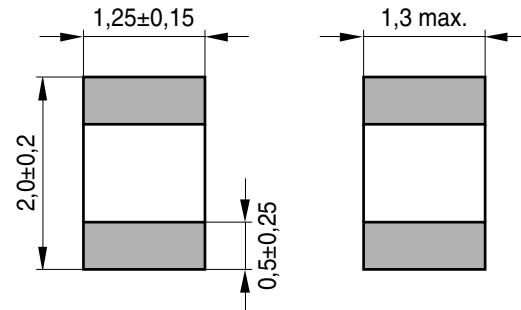
- Silver palladium termination (AgPd)
- Cost-effective
- Suitable for wave and reflow soldering

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 | $\Delta R_N/R_N$ | ± 5 %, ± 10 %, ± 20 % | |
| Rated temperature | T_N | 25 | °C |
| B value tolerance | $\Delta B/B$ | ± 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} | No. of R/T characteristic | $B_{25/50}$ | $B_{25/85}$ | $B_{25/100}$ | Ordering code |
|----------|-----------------------------|-------------|-------------|--------------|-----------------|
| Ω | | 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 $T: (125 \pm 2)^\circ\text{C}$ $t: 1000\text{ h}$ | $< 3\%$ / $< 6\%$ 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.