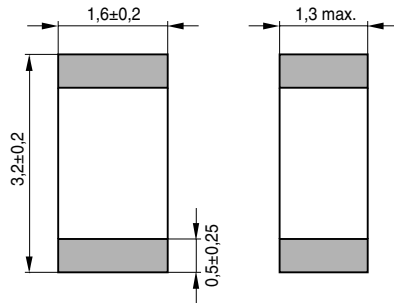



Applications

- 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



■ Termination

TNT0398-F

Options

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

Dimensions in mm/Approx. weight 18 mg

Delivery mode

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

| | | | |
|--|---------------------|-------------------------------|------|
| 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} | No. of R/T characteristic | $B_{25/50}$ | $B_{25/85}$ | $B_{25/100}$ | Ordering code |
|----------|-----------------------------|-------------|-------------|--------------|-----------------|
| Ω | | K | K | K | |
| 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 % | |