

Chip NTC Thermistor

ABNTC-0402

RoHS/RoHS II Compliant



1.0 x 0.5 x 0.5 mm

FEATURES:

- Large B constant for high temperature sensing capability
- Designed for high density
- Available in standard EIA compatible case size
- Internal electrode designed for enhanced reliability
- Excellent aging stability

APPLICATIONS:

- For temperature measurement or sensor: Digital thermometer, measuring instruments, temperature controller
- For temperature compensation: transistor circuit, TCXO, Crystal Oscillator
- LED lighting driver, Notebook, Cell Phone, Power Supplies, Disk Drive

STANDARD SPECIFICATIONS:

Operating Temperature: -55°C ~+125°C

Storage Temperature: -10°C ~ +40°C and RH 75% (Max.)

| Part Number | Resistance at 25°C R25 (kΩ) | B constant (25-50 °C) (K) | Max. Permissive Operating Current (25 °C) (mA) | Thermal Time Constant | Dissipation Factor (mW/°C) | Rated Electric Power (mW) |
|-----------------------|--------------------------------|------------------------------|---|--------------------------|-------------------------------|------------------------------|
| ABNTC-0402-332Δ-3950□ | 3.3 | 3950 | 0.55 | <3sec | 1.0 | 100 |
| ABNTC-0402-682Δ-3950□ | 6.8 | 3950 | 0.38 | | | |
| ABNTC-0402-103Δ-3380□ | 10 | 3380 | 0.31 | | | |
| ABNTC-0402-103Δ-3950□ | 10 | 3950 | 0.33 | | | |
| ABNTC-0402-103Δ-4050□ | 10 | 4050 | 0.33 | | | |
| ABNTC-0402-153Δ-3450□ | 15 | 3450 | 0.25 | | | |
| ABNTC-0402-223Δ-3950□ | 22 | 3950 | 0.23 | | | |
| ABNTC-0402-333Δ-3500□ | 33 | 3500 | 0.14 | | | |
| ABNTC-0402-473Δ-4100□ | 47 | 4100 | 0.12 | | | |
| ABNTC-0402-503Δ-4100□ | 50 | 4100 | 0.12 | | | |
| ABNTC-0402-683Δ-4150□ | 68 | 4150 | 0.11 | | | |
| ABNTC-0402-104Δ-4150□ | 100 | 4150 | 0.10 | | | |
| ABNTC-0402-104Δ-4250□ | 100 | 4250 | 0.10 | | | |
| ABNTC-0402-154Δ-4150□ | 150 | 4150 | 0.08 | | | |
| ABNTC-0402-224Δ-4250□ | 220 | 4250 | 0.06 | | | |
| ABNTC-0402-334Δ-4300□ | 330 | 4300 | 0.05 | | | |
| ABNTC-0402-684Δ-4400□ | 680 | 4400 | 0.03 | | | |

Δ: Please specify the tolerance code of R25 (F=±1%, H=±3%, J=±5%, K=±10%).

□: Please specify the tolerance code of B value (F=±1%, H=±3%).

Test Conditions

Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

- a. Ambient Temperature: 20±15°C
- b. Relative Humidity: 65±20%
- c. Air Pressure: 86 kPa to 106 kPa

Chip NTC Thermistor

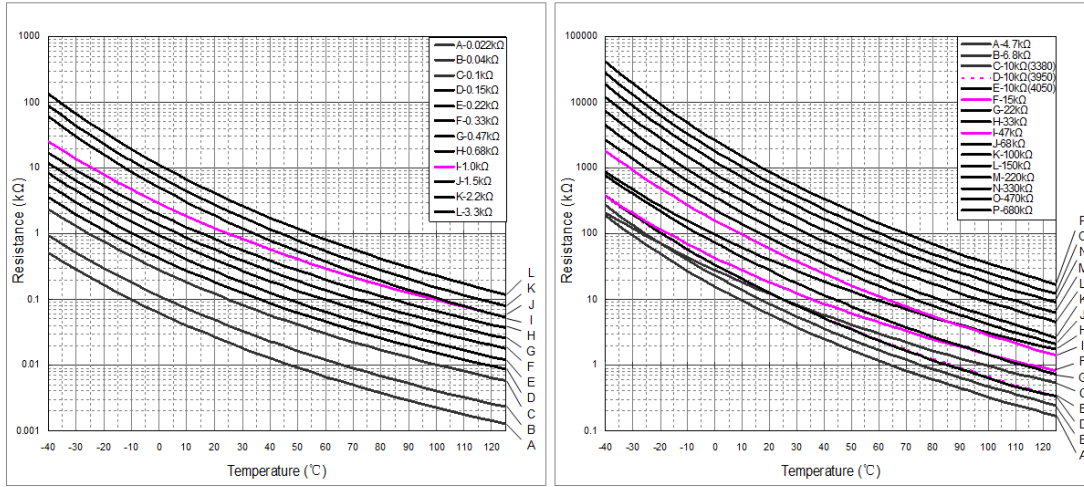
ABNTC-0402

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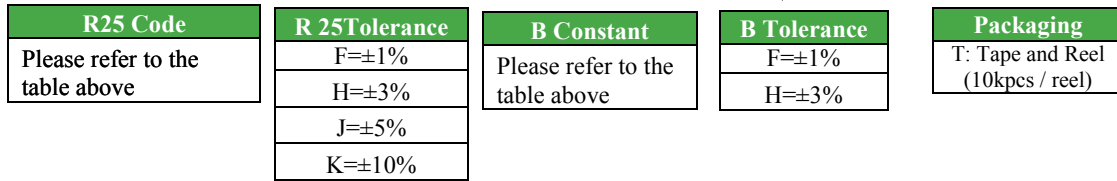
1.0 x 0.5 x 0.5 mm

ELECTRICAL CHARACTERISTICS CURVES

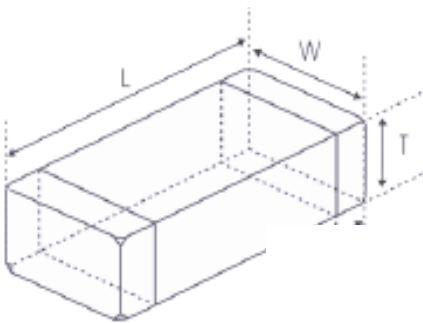


OPTIONS AND PART IDENTIFICATION:

ABNTC-0402- [] [] - [] [] - []

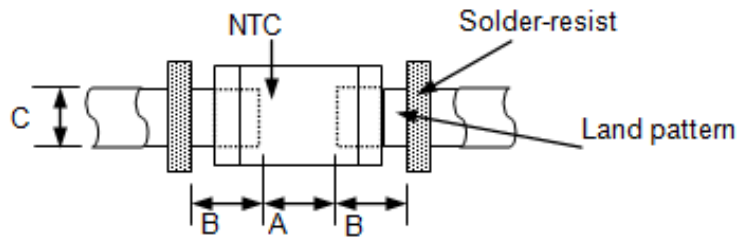


OUTLINE DIMENSION:



| L | W | T | a |
|----------|----------|----------|----------|
| 1.0±0.15 | 0.5±0.15 | 0.5±0.15 | 0.25±0.1 |

Recommended Land Pattern



| A | B | C |
|-----------|-----------|-----------|
| 0.45~0.55 | 0.40~0.50 | 0.45~0.55 |

Dimension: mm

Chip NTC Thermistor

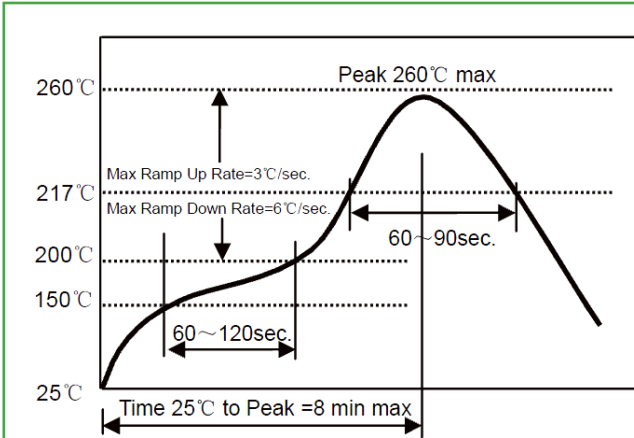
ABNTC-0402

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1.0 x 0.5 x 0.5 mm

REFLOW PROFILE:

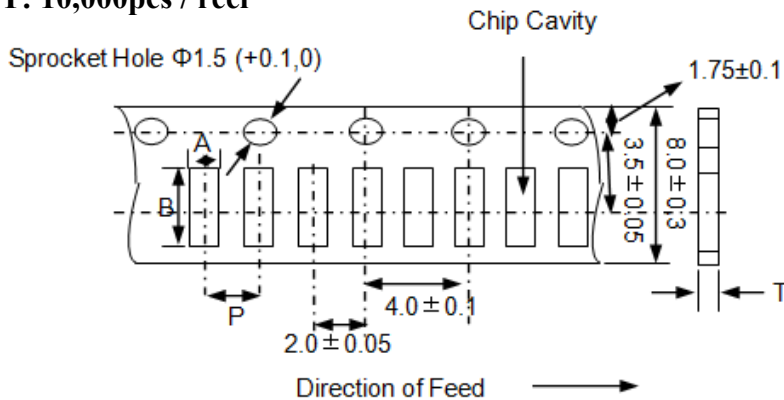


| | |
|-----------------------------|-------------------------------|
| Preheat Condition | 150 to 200 °C; 60 to 120 sec. |
| Allowed time above 217 °C | 60 to 90 sec. |
| Max temperature | 260 °C |
| Max time at max temperature | 10 sec. |
| Solder paste | Sn/3.0Ag/0.5Cu |
| Allowed Reflow time | 2x max. |

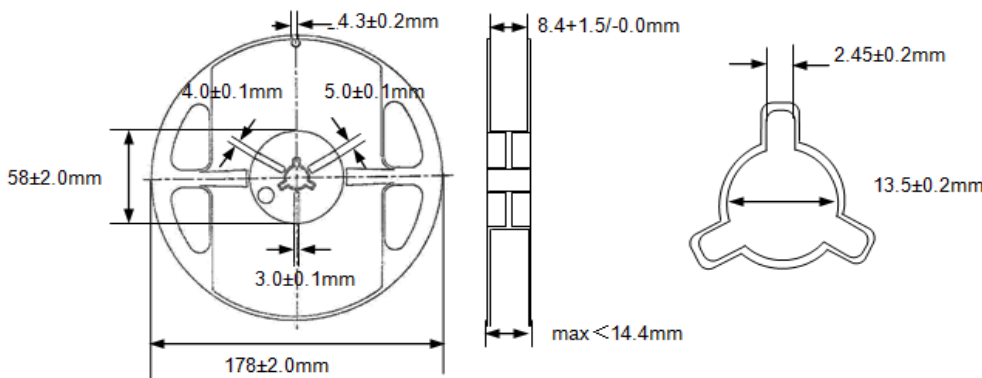
TAPE & REEL:

Packing

T: 10,000pcs / reel



| A | B | P | T (max) |
|----------|----------|----------|---------|
| 0.65±0.1 | 1.15±0.1 | 2.0±0.05 | 0.8 |



Dimension: mm

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