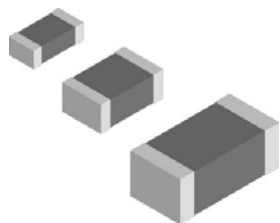


# NTC Thermistors, Surface Mount Chip

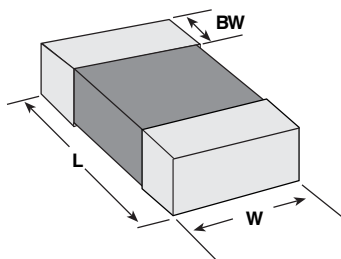


## FEATURES

- Solderable terminations
- Wraparound terminations
- Allows design flexibility for use with hybrid circuitry
- High-density monolithic construction

| NTHS PRODUCT R <sub>25</sub> °C VALUE RANGE BY CURVE AVAILABILITY |             |             |             |             |             |                          |
|-------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------------------|
| CURVE                                                             | NTHS-0402   | NTHS-0603   | NTHS-0805   | NTHS-1206   | NTHS-1012   | % TOLERANCE AVAILABILITY |
| 3                                                                 | N/A         | 1000 - 2000 | 1000 - 2000 | 1000 - 2000 | 500 - 700   | 5 %, 10 %                |
| 6                                                                 | 4.7K - 5.0K | 2K - 3.5K   | 1.5K - 2.8K | 1.5K - 3.5K | 1000 - 2000 | 5 %, 10 %                |
| 2                                                                 | 10K - 12K   | 6.8K - 12K  | 4.7K - 10K  | 4.7K - 10K  | 1.3K - 4.3K | 3 %, 5 %, 10 %           |
| 10                                                                | 18K - 25K   | 10K - 20K   | 6K - 12K    | 10K - 20K   | 4.5K - 7K   | 3 %, 5 %, 10 %           |
| 11                                                                | 30K - 34K   | 22K - 32K   | 12K - 30K   | 20K - 33K   | 9K - 13K    | 3 %, 5 %, 10 %           |
| 5                                                                 | 47K - 50K   | 32K - 50K   | 35K - 50K   | 30K - 44K   | 15K - 20K   | 3 %, 5 %, 10 %           |
| 1                                                                 | 68K - 100K  | 32K - 100K  | 33K - 100K  | 32K - 70K   | 10K - 30K   | 1 % to 10 %              |
| 17                                                                | 250K        | 150K - 200K | 100K - 200K | 100K - 200K | 30K - 93K   | 3 %, 5 %, 10 %           |
| 4                                                                 | 350K        | 200K - 220K | 200K - 220K | 200K - 330K | 93K - 140K  | 3 %, 5 %, 10 %           |

| GLOBAL PART NUMBER INFORMATION                                                    |                |                                                    |                |                  |                                      |                                                                                                             |
|-----------------------------------------------------------------------------------|----------------|----------------------------------------------------|----------------|------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------|
| New Global Part Numbering: NTHS1206N02N1002JR (preferred part numbering format)   |                |                                                    |                |                  |                                      |                                                                                                             |
| <b>N</b>                                                                          | <b>T</b>       | <b>H</b>                                           | <b>S</b>       | <b>1</b>         | <b>2</b>                             | <b>0</b>                                                                                                    |
| <b>6</b>                                                                          | <b>N</b>       | <b>0</b>                                           | <b>2</b>       | <b>N</b>         | <b>1</b>                             | <b>0</b>                                                                                                    |
| <b>0</b>                                                                          | <b>0</b>       | <b>2</b>                                           | <b>J</b>       | <b>J</b>         | <b>R</b>                             |                                                                                                             |
| GLOBAL MODEL                                                                      | CONDUCTOR TYPE | CURVE                                              | CHARACTERISTIC | RESISTANCE VALUE | TOLERANCE CODE                       | PACKAGING                                                                                                   |
| NTHS0402<br>NTHS0603<br>NTHS0805<br>NTHS1206<br>NTHS1012                          | Nickel Barrier | 01<br>02<br>03<br>04<br>05<br>06<br>10<br>11<br>17 | N              | 1002 = 10K       | F = ± 1 %<br>J = ± 5 %<br>K = ± 10 % | F = Lead (Pb)-free, Bulk<br>E = Lead (Pb)-free, T/R (Full)<br>P = Tin/Lead, Bulk<br>R = Tin/Lead T/R (Full) |
| Historical Part Number example: NTHS1206N02N1002JR (will continue to be accepted) |                |                                                    |                |                  |                                      |                                                                                                             |
| <b>NTHS1206</b>                                                                   | <b>N</b>       | <b>02</b>                                          | <b>N</b>       | <b>1002</b>      | <b>J</b>                             | <b>R</b>                                                                                                    |
| HISTORICAL MODEL                                                                  | CONDUCTOR TYPE | CURVE                                              | CHARACTERISTIC | RESISTANCE VALUE | TOLERANCE                            | PACKAGING                                                                                                   |

**DIMENSIONS** in inches [millimeters]

| PART NUMBER | L                                | W                              | BW                              |
|-------------|----------------------------------|--------------------------------|---------------------------------|
| NTHS-0402   | 0.040 ± 0.004<br>[1.016 ± 0.102] | 0.022 ± 0.006<br>[0.5 ± 0.051] | 0.010 ± 0.004<br>[0.25 ± 0.102] |
| NTHS-0603   | 0.063 ± 0.008<br>[1.6 ± 0.20]    | 0.031 ± 0.008<br>[0.80 ± 0.20] | 0.010 ± 0.006<br>[0.25 ± 0.15]  |
| NTHS-0805   | 0.079 ± 0.008<br>[2.00 ± 0.20]   | 0.049 ± 0.008<br>[1.25 ± 0.20] | 0.012 ± 0.006<br>[0.30 ± 0.15]  |
| NTHS-1206   | 0.126 ± 0.008<br>[3.20 ± 0.20]   | 0.063 ± 0.008<br>[1.60 ± 0.20] | 0.018 ± 0.008<br>[0.46 ± 0.20]  |
| NTHS-1012   | 0.098 ± 0.008<br>[2.50 ± 0.20]   | 0.126 ± 0.008<br>[3.20 ± 0.20] | 0.018 ± 0.008<br>[0.46 ± 0.20]  |

**TYPICAL PRODUCT RTC CHARACTERISTICS**

| CURVE                | 1     | 2      | 3     | 4      | 5     | 6     | 10    | 11    | 17     |
|----------------------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| NTC%/°C at + 25 °C   | - 4.4 | - 3.83 | - 3.5 | - 4.68 | - 4.3 | - 3.6 | - 3.9 | - 4.0 | - 4.54 |
| Beta + 25 °C/+ 75 °C | 3964  | 3477   | 3181  | 4247   | 3890  | 3254  | 3500  | 3700  | 4064   |

Beta Tolerance is ± 3 %



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