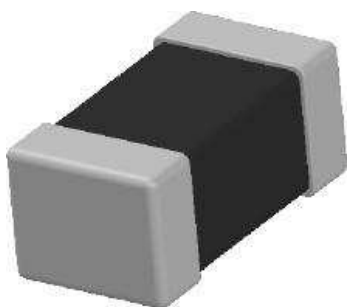




## SMD THERMISTOR 20021086-00

### Specifications

- 10,000 Ohms Resistance @ +25°C
- Tape and Reel packaging for automatic placement
- 3% tolerance @ +25°C
- Temperature range -40°C to +150°C

### Features

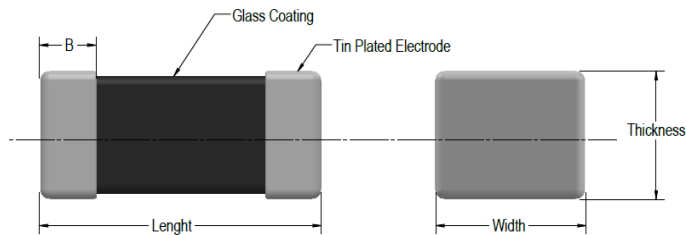
- Glass coated for excellent durability and heat resistance
- Excellent solderability with five surface Tin plated electrodes
- Tape & Reel packaging for automatic placement
- Low cost
- RoHS Compliant

### Applications

- Temperature sensing, control and detection
- Temperature compensation of transistors, IC's and crystal oscillators in mobile telecommunication equipment.
- Consumer electronics
- Automotive electronics
- LCD controls

[CLICK HERE ›](#)  
**CONNECT WITH A SPECIALIST**

Dimensions



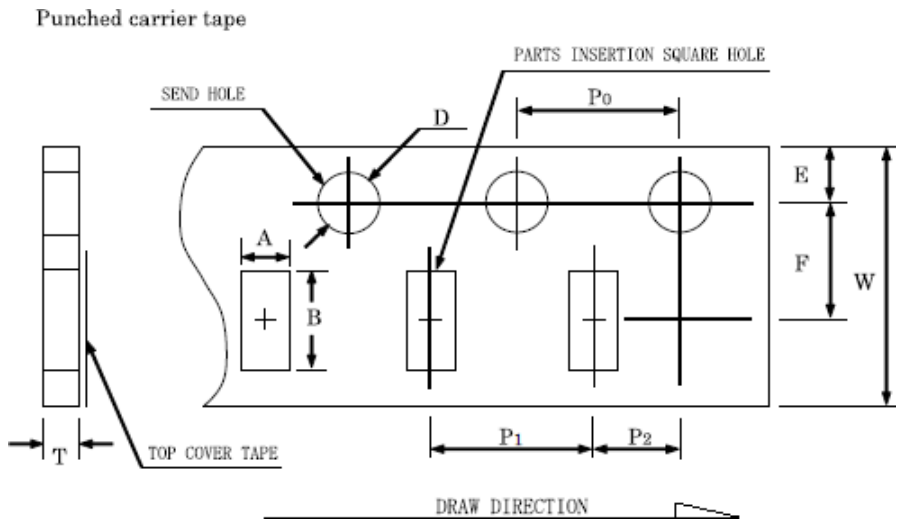
| Length   | Width   | Thickness | B        |
|----------|---------|-----------|----------|
| 1.60±0.2 | 0.8±0.1 | 0.8±0.1   | 0.3 ±0.1 |

Product specifications

| Parameters                        | Units | Value       |
|-----------------------------------|-------|-------------|
| Nominal Resistance at +25°C       | Ohms  | 10,000      |
| Tolerance at +25°C                | %     | ± 3         |
| Beta Value 25/85                  | K     | 3435        |
| Tolerance on Beta Value 25/85     | %     | ± 1         |
| Max. rated wattage in still air   | mW    | 30          |
| Dissipation Constant in still air | mW/°C | 3.0         |
| Operating Temperature             | °C    | -40 to +150 |

Tape dimensions

| Type of taping                               | Carrier tape | Top cover tape            | Bottom cover tape      |
|----------------------------------------------|--------------|---------------------------|------------------------|
| Taping of rectangular punched carrier system | Paper        | Thermal adhesion plastics | Thermal adhesion paper |



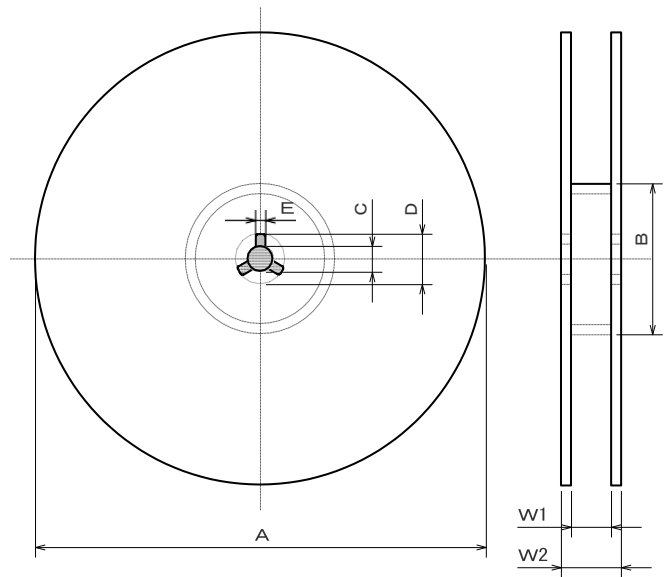
| A        | B         | W         | E         | F         |
|----------|-----------|-----------|-----------|-----------|
| 1.1±0.05 | 1.90±0.05 | 8.00±0.20 | 1.75±0.10 | 3.50±0.05 |

| P1       | P2        | P0        | D         | T         |
|----------|-----------|-----------|-----------|-----------|
| 4.00±0.1 | 2.00±0.05 | 4.00±0.10 | 1.50±0.10 | 0.95±0.05 |

Notes:

1. Dimensions in mm
2. Pitch tolerance over any 10 pitches of P0 is ±0.2mm.

Reel dimensions



| A         | B        | C       | D       | E     | W1        | W2       |
|-----------|----------|---------|---------|-------|-----------|----------|
| Ø 180±2.0 | Ø 60±1.0 | Ø13±0.5 | Ø21±0.8 | 2±0.5 | 10.0±1.50 | 14.0±1.5 |

Notes:

1. All dimensions are in mm
2. Material: Polystyrene

## Resistance v temperature table

| Temp °C | K Ohms |
|---------|--------|
| -40     | 205.60 |
| -39     | 194.20 |
| -38     | 183.50 |
| -37     | 173.40 |
| -36     | 164.00 |
| -35     | 155.10 |
| -34     | 146.80 |
| -33     | 139.00 |
| -32     | 131.60 |
| -31     | 124.70 |
| -30     | 118.20 |
| -29     | 112.10 |
| -28     | 106.30 |
| -27     | 100.90 |
| -26     | 95.73  |
| -25     | 90.90  |
| -24     | 86.34  |
| -23     | 82.04  |
| -22     | 77.99  |
| -21     | 74.15  |
| -20     | 70.53  |
| -19     | 67.11  |
| -18     | 63.88  |
| -17     | 60.82  |
| -16     | 57.93  |
| -15     | 55.19  |
| -14     | 52.60  |
| -13     | 50.15  |
| -12     | 47.82  |
| -11     | 45.62  |
| -10     | 43.53  |
| -9      | 41.55  |
| -8      | 39.67  |
| -7      | 37.89  |
| -6      | 36.20  |
| -5      | 34.59  |
| -4      | 33.07  |
| -3      | 31.62  |
| -2      | 30.24  |
| -1      | 28.93  |
| 0       | 27.69  |
| 1       | 26.50  |
| 2       | 25.38  |
| 3       | 24.30  |
| 4       | 23.28  |
| 5       | 22.31  |
| 6       | 21.38  |
| 7       | 20.50  |

| Temp °C | K Ohms |
|---------|--------|
| 8       | 19.66  |
| 9       | 18.86  |
| 10      | 18.09  |
| 11      | 17.36  |
| 12      | 16.67  |
| 13      | 16.00  |
| 14      | 15.37  |
| 15      | 14.76  |
| 16      | 14.19  |
| 17      | 13.63  |
| 18      | 13.10  |
| 19      | 12.60  |
| 20      | 12.12  |
| 21      | 11.66  |
| 22      | 11.21  |
| 23      | 10.79  |
| 24      | 10.39  |
| 25      | 10.00  |
| 26      | 9.63   |
| 27      | 9.27   |
| 28      | 8.94   |
| 29      | 8.61   |
| 30      | 8.30   |
| 31      | 8.00   |
| 32      | 7.71   |
| 33      | 7.44   |
| 34      | 7.17   |
| 35      | 6.92   |
| 36      | 6.68   |
| 37      | 6.45   |
| 38      | 6.22   |
| 39      | 6.01   |
| 40      | 5.80   |
| 41      | 5.61   |
| 42      | 5.42   |
| 43      | 5.24   |
| 44      | 5.06   |
| 45      | 4.89   |
| 46      | 4.73   |
| 47      | 4.57   |
| 48      | 4.42   |
| 49      | 4.28   |
| 50      | 4.14   |
| 51      | 4.01   |
| 52      | 3.88   |
| 53      | 3.76   |
| 54      | 3.64   |
| 55      | 3.52   |

| Temp °C | K Ohms |
|---------|--------|
| 56      | 3.412  |
| 57      | 3.306  |
| 58      | 3.203  |
| 59      | 3.104  |
| 60      | 3.009  |
| 61      | 2.917  |
| 62      | 2.829  |
| 63      | 2.743  |
| 64      | 2.661  |
| 65      | 2.581  |
| 66      | 2.504  |
| 67      | 2.43   |
| 68      | 2.359  |
| 69      | 2.289  |
| 70      | 2.223  |
| 71      | 2.158  |
| 72      | 2.096  |
| 73      | 2.036  |
| 74      | 1.978  |
| 75      | 1.921  |
| 76      | 1.867  |
| 77      | 1.815  |
| 78      | 1.764  |
| 79      | 1.715  |
| 80      | 1.667  |
| 81      | 1.621  |
| 82      | 1.576  |
| 83      | 1.533  |
| 84      | 1.492  |
| 85      | 1.451  |
| 86      | 1.413  |
| 87      | 1.375  |
| 88      | 1.339  |
| 89      | 1.304  |
| 90      | 1.269  |
| 91      | 1.236  |
| 92      | 1.204  |
| 93      | 1.173  |
| 94      | 1.143  |
| 95      | 1.114  |
| 96      | 1.086  |
| 97      | 1.058  |
| 98      | 1.031  |
| 99      | 1.006  |
| 100     | 0.9805 |
| 101     | 0.9562 |
| 102     | 0.9326 |
| 103     | 0.9096 |

| Temp °C | K Ohms |
|---------|--------|
| 104     | 0.8874 |
| 105     | 0.8657 |
| 106     | 0.8447 |
| 107     | 0.8243 |
| 108     | 0.8045 |
| 109     | 0.7853 |
| 110     | 0.7666 |
| 111     | 0.7484 |
| 112     | 0.7307 |
| 113     | 0.7136 |
| 114     | 0.6969 |
| 115     | 0.6807 |
| 116     | 0.6649 |
| 117     | 0.6496 |
| 118     | 0.6346 |
| 119     | 0.6201 |
| 120     | 0.6060 |
| 121     | 0.5923 |
| 122     | 0.5789 |
| 123     | 0.5659 |
| 124     | 0.5533 |
| 125     | 0.5410 |
| 126     | 0.5290 |
| 127     | 0.5173 |
| 128     | 0.5059 |
| 129     | 0.4949 |
| 130     | 0.4841 |
| 131     | 0.4736 |
| 132     | 0.4634 |
| 133     | 0.4534 |
| 134     | 0.4437 |
| 135     | 0.4342 |
| 136     | 0.4250 |
| 137     | 0.4160 |
| 138     | 0.4073 |
| 139     | 0.3987 |
| 140     | 0.3904 |
| 141     | 0.3823 |
| 142     | 0.3744 |
| 143     | 0.3667 |
| 144     | 0.3592 |
| 145     | 0.3518 |
| 146     | 0.3447 |
| 147     | 0.3377 |
| 148     | 0.3309 |
| 149     | 0.3242 |
| 150     | 0.3177 |

### Ordering information

| Part Number | Description                          | $\Omega$ @ +25°C | MOQ*  |
|-------------|--------------------------------------|------------------|-------|
| 20021086-00 | 0603 SMD Thermistor – Taped & Reeled | 10,000           | 3,000 |

\*For orders less than MOQ, please contact Sales

[CLICK HERE >](#)  
**CONNECT WITH A SPECIALIST**

#### NORTH AMERICA

Measurement Specialties, Inc., a  
TE Connectivity Company 1711  
139th Lane NW Andover, MN  
55304  
Tel: +1 763 689 4870  
Fax: +1 763 689 5033  
customer care.ando@te.com

#### EUROPE

Measurement Specialties (Europe),  
Ltd., a TE Connectivity Company  
Ballybrit Business  
ParkGalway Ireland  
Tel : +353-91-753238  
Fax : +353-91-770789  
Email: customer care.glwy@te.com

#### ASIA

Measurement Specialties (China), Ltd., a TE  
Connectivity Company  
No. 368 Wulian 1st Road  
Gongxing Town Shuangliu,  
Chengdu Sichuan, 610200  
China  
Tel: +86 (0) 28 8573 9088  
Fax: +86 (0) 28 8573 9070  
Email: customer care.chdu@te.com

### [te.com/sensors](http://te.com/sensors)

TE Connectivity, TE, TE Connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2021 TE Connectivity Corporation. All Rights Reserved.

Version # 08/2021

