

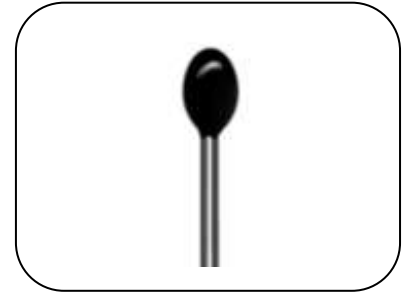
# NTC Thermistor Sensor: NTSE Series

## Epoxy Coating Type



### ■ Features

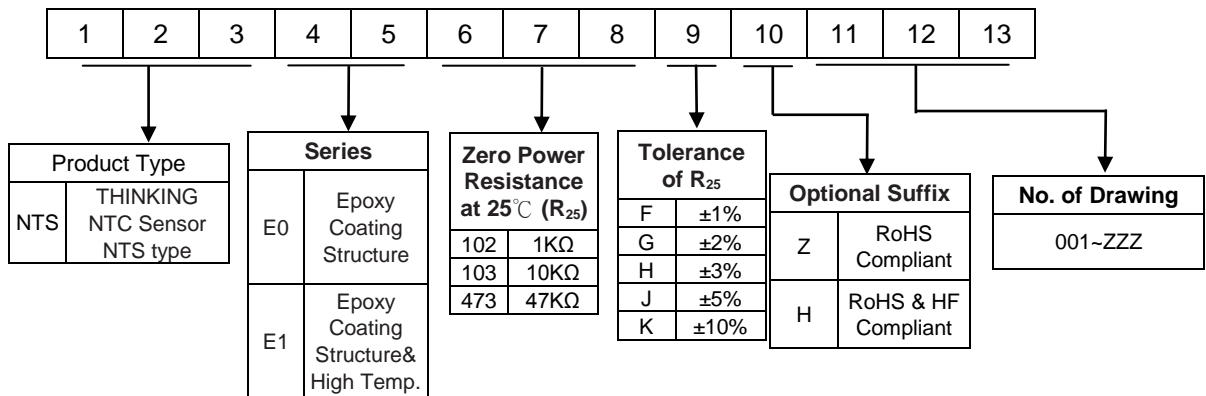
1. Small size and short response time
2. Cost effective
3. RoHS compliant
4. Halogen-free series are available
5. Customized cable lengths, R/T characteristic and connector is on demand
6. Agency recognition:  
UL /cUL file no: E138827  
TUV file no: R50236283



### ■ Recommended Applications

1. Battery
2. Notebook computer, PCs
3. Fan
4. Electronic devices

### ■ Part Number Code



### ■ Structures and Dimensions

#### Type 1: Single wire



| Lead Material             | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R <sub>25</sub> ) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|---------------------------|------------------|-----------------|--|--------------|--------------------------|----------------------|-----------------------|
|                           | (mm)             | (mm)            | (KΩ)   | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL3302<br>#28 TS<br>Black | 3.0*8.0          | 25±3            | 10   | 3435         | Approx. 10<br>(in water) | 150                  | -10~+105              |
|                           |                  | 30±3            |  |              |                          |                      |                       |
|                           |                  | 35±3            |  |              |                          |                      |                       |
|                           |                  | 40±3            |  |              |                          |                      |                       |
|                           |                  | 45±3            |  |              |                          |                      |                       |
|                           |                  | 50±3            |  |              |                          |                      |                       |
|                           |                  | 130±5           |  |              |                          |                      |                       |

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| Lead Material             | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R25) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|---------------------------|------------------|-----------------|-------------------------------------|--------------|--------------------------|----------------------|-----------------------|
|                           | (mm)             | (mm)            | (KΩ)                                | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL3302<br>#30 TS<br>Grey  | 2.6*6.0          | 25±3            | 100                                 | 4360         | Approx. 10<br>(in water) | 150                  | -10~+105              |
|                           |                  | 40±5            |                                     |              |                          |                      |                       |
|                           |                  | 50±3            |                                     |              |                          |                      |                       |
| UL3302<br>#30 TS<br>Black | 2.6*6.0          | 25±3            | 10                                  | 3435         | Approx. 10<br>(in water) | 150                  | -10~+105              |
|                           |                  | 30±3            |                                     |              |                          |                      |                       |
|                           |                  | 40±3            |                                     |              |                          |                      |                       |
|                           |                  | 45±3            |                                     |              |                          |                      |                       |
|                           |                  | 50±3            |                                     |              |                          |                      |                       |
|                           |                  | 55±3            |                                     |              |                          |                      |                       |
|                           |                  | 60±3            |                                     |              |                          |                      |                       |
|                           |                  | 70±3            |                                     |              |                          |                      |                       |
|                           |                  | 75±3            |                                     |              |                          |                      |                       |
|                           |                  | 80±3            |                                     |              |                          |                      |                       |
|                           |                  | 100±3           |                                     |              |                          |                      |                       |
|                           |                  | 110±3           |                                     |              |                          |                      |                       |
|                           |                  | 120±3           |                                     |              |                          |                      |                       |
| 150±3                     |                  |                 |                                     |              |                          |                      |                       |
| UL3302<br>#32 TS<br>Black | 2.2*6.0          | 30±3            | 10                                  | 3435         | Approx. 10<br>(in water) | 150                  | -10~+105              |
|                           |                  | 40±3            |                                     |              |                          |                      |                       |
|                           |                  | 50±3            |                                     |              |                          |                      |                       |
|                           |                  | 60±3            |                                     |              |                          |                      |                       |
|                           |                  | 100±3           |                                     |              |                          |                      |                       |

### Type 2: Parallel wire



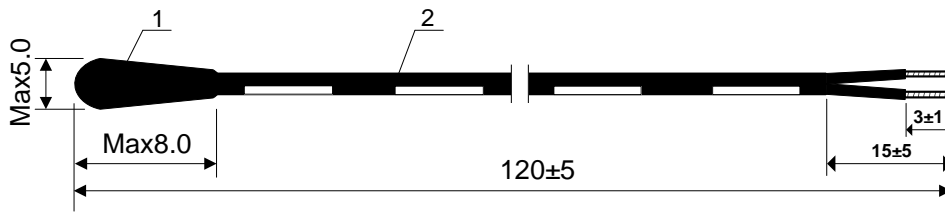
| Lead Material                   | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R25) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|---------------------------------|------------------|-----------------|-------------------------------------|--------------|--------------------------|----------------------|-----------------------|
|                                 | (mm)             | (mm)            | (KΩ)                                | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL4469<br>#30*2C<br>TS<br>Black | 2.6*6.0          | 102±3           | 10                                  | 3435         | Approx. 10<br>(in water) | 150                  | -10~+105              |
|                                 |                  | 60±3            |                                     |              |                          |                      |                       |

# NTC Thermistor Sensor: NTSE Series

## Epoxy Coating Type



| Lead Material                | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R25) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|------------------------------|------------------|-----------------|-------------------------------------|--------------|--------------------------|----------------------|-----------------------|
|                              | (mm)             | (mm)            | (KΩ)                                | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL4469<br>#28*2C TS<br>Black | 3.0*8.0          | 53±2            | 10                                  | 3435         | Approx. 10<br>(in water) | 150                  | -10~+105              |



| Lead Material             | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R25) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|---------------------------|------------------|-----------------|-------------------------------------|--------------|--------------------------|----------------------|-----------------------|
|                           | (mm)             | (mm)            | (KΩ)                                | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL2651<br>#26 TS<br>Black | 5.0*8.0          | 120±5           | 6.8                                 | 3888         | Approx. 15<br>(in water) | 150                  | -30~+100              |

### Type 3: Single wire with connector



Connector Pitch 1.25mm

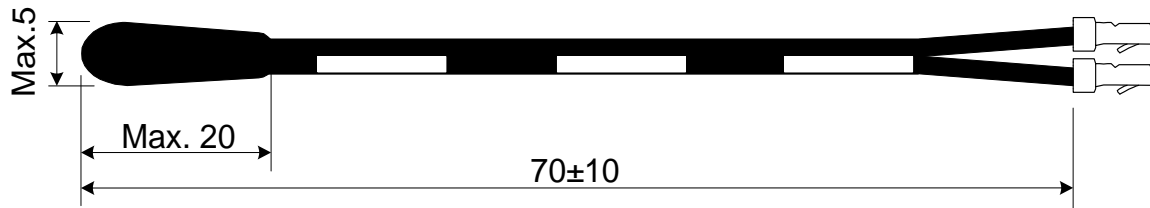
| Lead Material             | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R25) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|---------------------------|------------------|-----------------|-------------------------------------|--------------|--------------------------|----------------------|-----------------------|
|                           | (mm)             | (mm)            | (KΩ)                                | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL3302<br>#30 TS<br>Black | 2.6*6.0          | 110±5           | 100                                 | 4360         | Approx. 10<br>(in water) | 150                  | -10~+105              |

# NTC Thermistor Sensor: NTSE Series

## Epoxy Coating Type



### Type 4: High temperature



Terminal is suitable for  $\Phi 1.2\text{mm}$  PCB

| Lead Material                | Head Size (W*L1) | Lead Length (L) | Zero Power Resistance at 25°C (R25) | B25/85 Value | Thermal Time Constant    | Power Rating at 25°C | Operation Temp. Range |
|------------------------------|------------------|-----------------|-------------------------------------|--------------|--------------------------|----------------------|-----------------------|
|                              | (mm)             | (mm)            | (K $\Omega$ )                       | (K)          | (sec)                    | (mw)                 | (°C)                  |
| UL4413<br>#26*2C TS<br>Black | 5*20             | 70±10           | 10                                  | 3435         | Approx. 11<br>(in water) | 150                  | -40~+150              |