

### TC Series Miniature Thermistors



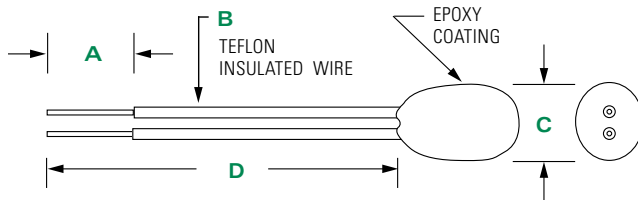
#### Description

Littelfuse miniature leaded epoxy coated thermistors are manufactured using the same state of the art manufacturing techniques as those used to produce Littelfuse precision interchangeable devices. This results in devices with superior long-term reliability characteristics especially suitable for temperature measurement, temperature control and temperature compensation applications.

#### Options

- Non-standard resistance values and tolerances
- Special lead materials and lengths
- Special encapsulants or probe housings
- Point matched at specified temperatures

#### Dimensions



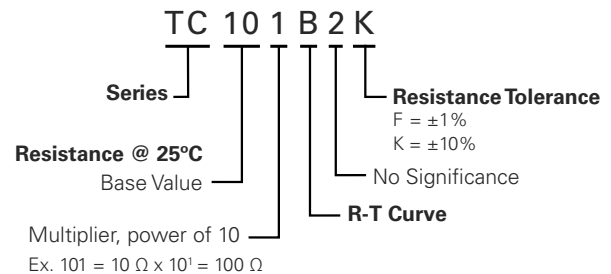
Dimensions shown in inches.

| A             | B                | C             | D               |
|---------------|------------------|---------------|-----------------|
| 0.250"<br>Nom | 28 AWG<br>0.013" | 0.095"<br>Max | 1.5"<br>±0.250" |

#### Features

- Low cost
- High stability
- Epoxy encapsulated
- Small size
- Fast thermal response time

#### Part Numbering System



**Note:** Not all combinations of Part Number codes are available. Contact Littelfuse for details.

## TC Series Miniature Thermistors

### Specifications

| Part Number | Resistance Ohms @25°C | *Resistance Tol. ± % @ 25°C | R-T Curve | Temperature Coefficient (% / °C) @ 25°C | Beta (K) 0-50°C | Dissipation Constant, Nominal (mW/°C) | Thermal Time Constant, Max. - Still Air (seconds) | Thermal Time Constant, Max. - Well Stirred Oil (seconds) | Temperature Rating (°C) |
|-------------|-----------------------|-----------------------------|-----------|---|-----------------|---------------------------------------|---|--|-------------------------|
| TC101B2K    | 100                   | 10                          | B         | -3.3                                    | 2941            | 1                                     | 10  | 1  | -55 to +100             |
| TC102F2K    | 1000                  | 10                          | F         | -3.86                                   | 3419            | 1                                     | 10  | 1  | -55 to +150             |
| TC222J2K    | 2252                  | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC302J2K    | 3000                  | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC502J2K    | 5000                  | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC103G2K    | 10000                 | 10                          | G         | -4.04                                   | 3575            | 1                                     | 10  | 1  | -55 to +150             |
| TC103J2K    | 10000                 | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC203J2K    | 20000                 | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC303J2K    | 30000                 | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC503J2K    | 50000                 | 10                          | J         | -4.4                                    | 3892            | 1                                     | 10  | 1  | -55 to +150             |
| TC104R2K    | 100000                | 10                          | R         | -4.68                                   | 4140            | 1                                     | 10  | 1  | -55 to +150             |

\*Resistance tolerances of ± 1%, 2%, and 5% are available upon request

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