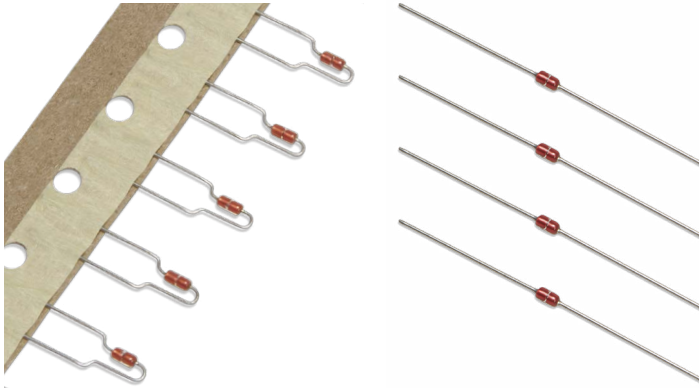


# Leaded Thermistors

## NGD Series

Glass-Encapsulated NTC Thermistor

REACH RoHS



### Description

The NGD series glass-encapsulated thermistors are manufactured using exceptionally stable chips that are hermetically sealed in a glass (DO-35, DO-34, DO-41 diode style) package. The result is a device that exhibits excellent long-term reliability and stability even under severe environmental or thermal conditions. The uniform dimensions and axial configuration make them especially suitable for use with automatic insertion equipment. Options include special lead forms as well as tape and reel packaging. These thermistors are very cost-effective and available with a variety of resistance values and tolerances. They are used in numerous industrial applications.

### Features

- High-precision resistance and beta  $\beta$  value
- High-temperature capability to +300 °C except for tinning, which is rated at +250 °C
- Hermetically sealed glass package
- Tinned CCS lead wires can be soldered or welded
- Excellent long-term stability
- High-voltage insulation
- Low cost

### Benefits

- Efficient
- Cost-effective
- Fast response time
- Fits into different housing options with various shapes
- Provides simple sensing temperature method

### Applications

- HVAC
- Duct Averaging Sensors
- Building Automation
- Appliances
- Consumer Electronics
- Low Cost Probe Assemblies
- Printed circuit board

# Leaded Thermistors

## NGD Series

### Specifications

| PART NUMBER       | RESISTANCE<br>IN OHMS AT 25<br>°C (Ω) | RESISTANCE<br>TOLERANCE<br>± % @ 25 °C | BETA K<br>0–50 °C | OPERATING<br>TEMPERATURE<br>MAX °C | TEMPERATURE<br>COEFFICIENT<br>@ 25 °C | RESISTANCE-<br>TEMPERATURE<br>CURVE |
|-------------------|---------------------------------------|----------------------------------------|-------------------|------------------------------------|---------------------------------------|-------------------------------------|
| NGD3103F3T1NLT001 | 10000                                 | 1                                      | 3892              | 300                                | —                                     | J                                   |
| NGD3103J3V2NHT001 | 10000                                 | 5                                      | 3892              | 232                                | -4.4% / °C                            | J                                   |
| NGD3103K3T1NHT001 | 10000                                 | 10                                     | 3892              | 232                                | -4.4% / °C                            | J                                   |
| NGD3103K3T1NLB001 | 10000                                 | 10                                     | 3892              | 300                                | -4.4% / °C                            | J                                   |
| NGD3154K3T1NLB001 | 150000                                | 10                                     | 3892              | 300                                | -4.4% / °C                            | J                                   |
| NGD3203K3T1NLB001 | 20000                                 | 10                                     | 3892              | 300                                | -4.4% / °C                            | J                                   |
| NGD3253F3T1NLB001 | 25000                                 | 1                                      | 3892              | 300                                | -4.4% / °C                            | J                                   |
| NGD3502K3T1NLB001 | 5000                                  | 10                                     | 3892              | 300                                | -4.4% / °C                            | J                                   |

### Certification & Compliance

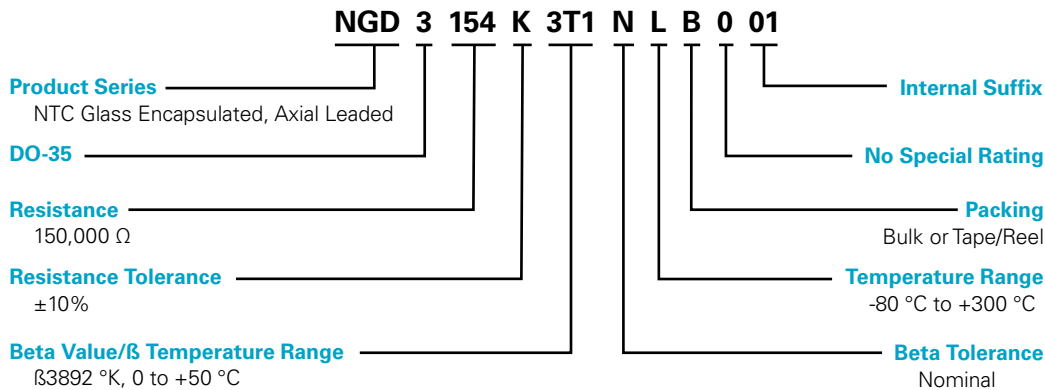
#### REACH

Reach Regulation (EC) No. 1907/2006

#### RoHS

RoHS 2 Directive 2011/65/EU; Directive (EU) 2015/863

### Part Numbering System



# Leaded Thermistors

## NGD Series

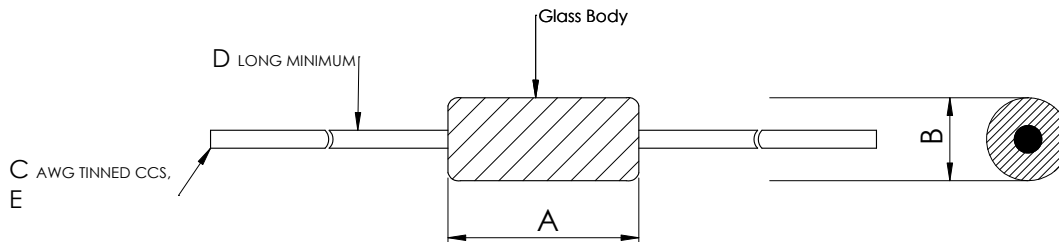
### Ordering Information

| CATALOG NUMBER    | PACKAGING    | QUANTITY |
|-------------------|--------------|----------|
| NGD3103J3V2NHT001 | Ammo Packing | 5000 pcs |
| NGD3103K3T1NHT001 | Ammo Packing | 5000 pcs |
| NGD3103K3T1NLB001 | Tape/Reel    | 5000 pcs |
| NGD3154K3T1NLB001 | Bulk         | —        |
| NGD3203K3T1NLB001 | Bulk         | —        |
| NGD3253F3T1NLB001 | Bulk         | —        |
| NGD3253F3T1NLB001 | Bulk         | —        |
| NGD3103F3T1NLT001 | Tape/Reel    | 5000 pcs |

### Electrical Specifications

| RESISTANCE<br>(25 °C) Ω | RESISTANCE<br>TOLERANCE, ±% | TEMP. COEFFICIENT<br>(%/°C) | BETA (K)    | DISSIPATION<br>CONSTANT (MW/C) | TIME CONSTANT<br>(STILL AIR) (SEC) | TEMP RATING (°C)                                              |
|-------------------------|-----------------------------|-----------------------------|-------------|--------------------------------|------------------------------------|---------------------------------------------------------------|
| 1000 to 2000000         | 0.5 to 10.0                 | 3.31 to 4.4                 | 2000 ~ 5000 | ≤2.0 ~ 4.0                     | ≤12.0 ~ 20.0                       | -80 ~ +300 for the thermistor,<br>leads tinning is rated +250 |

### Dimensions Inches (mm)



| A                                       | B                                       | C                                                                              | D                                         | E             |
|-----------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------|---------------|
| 0.110" to 0.170"<br>(2.794 to 4.318 mm) | 0.065" to 0.110"<br>(1.651 to 2.794 mm) | 0.0157" ± 0.0025" to 0.0200" 0.001"<br>(0.0157 ± 0.0635 mm to 0.508 0.0254 mm) | 0.157" to 0.2 50"<br>(3.9878 to 6.350 mm) | Tinned Dument |

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