THERMOMETRICS
A COMMITMENT TO EXCELLENCE

NTC Diode

Thermometrics Thermistors

A range of NTC chip thermistors in DO-35 style glass package (diode outline) with axial solder-coated copper-clad steel wires.

- Designed for accurate temperature measurement, control and compensation
- Tight tolerances on resistance and B value
- Operation up to 482°F (250°C) with excellent stability
- Glass body provides hermetic seal and voltage insulation and excellent stability
- Designed for cost effective solid state sensor
- Lead-wires metallurgically bonded to thermistor element for improved reliability (Type GE only)
- Resistant to corrosive atmospheres and harsh environments
- Available on axial bandolier to IEC-286-1/ EIA-468A and packet taped to EIA RS-481 for MELF.
- Also available loose-packed with axial, radial and SMD wire forms
- Suitable for automotive, telecom (battery packs), HVAC and white goods applications
- Temperature sensing for household appliances such as rice cookers, electronic ranges, ovens, etc.
- Temperature sensing for industrial products such as pharmaceuticals, chemicals, food, etc.components.

Amphenol

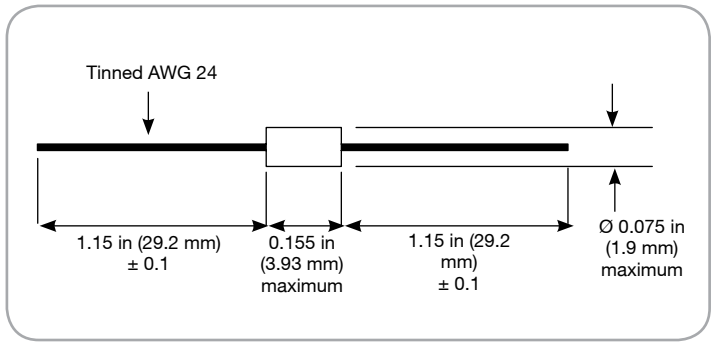
Advanced Sensors

Type GE Specifications

Glass encapsulated DO-35 package

Options

- For reel taping “R” suffix
- Nickel leads for welding
- Other resistances in the range 250 Ω to 5 MΩ
- Other tolerances, tolerances at other temperatures
- Alternative leads lengths, lead materials
- Can be expanded to 572°F (300°C) with nickel leads



NTC Type GE dimensions

Data

- Standard resistance tolerance: ±10% @ 77°F (25°C)
- Dissipation constant: 3.0 mW/K
- Time constant: 7 seconds
- Operating range: -58°F to 400°F (-50°C to 204°C

Ro@25° C (Ω)	Material System	Beta 25/85	Type Number
250	GE5.5*	2983	AL03006-165.9-55-K
500	GE5.5*	2983	AL03006-331.8-55-K
1K	GE7.3	3499	AL03006-624-73-K
2K	GE7.3	3499	AL03006-1248-73-K
2786	GE10.1	4102	AL03006-1576-101-K
3K	GE7.6	3553	AL03006-1847-76-K
4K	GE7.6	3553	AL03006-2463-76-K
5K	GE7.6	3553	AL03006-3079-76-K
10K	GE9.7A	3992	AL03006-5818-97-K
20K	GE9.8	3974	AL03006-11.7K-98-K
30K	GE9.8	3974	AL03006-17.53K-98-K
50K	GE9.7B	3952	AL03006-29.1K-97-K
100K	GE9.7B	3952	AL03006-58.2K-97-K
200K	GE12.3	4365	AL03006-111.3K-123-K
500K	GE13.8	4567	AL03006-269.8K-138-K
1M	GE14.5	4661	AL03006-535K-145-K
5M	GE16.4	4848	AL03006-2.6M-164-K

**maximum operating temperature 302°F (150°C)*

Type MELF Specifications

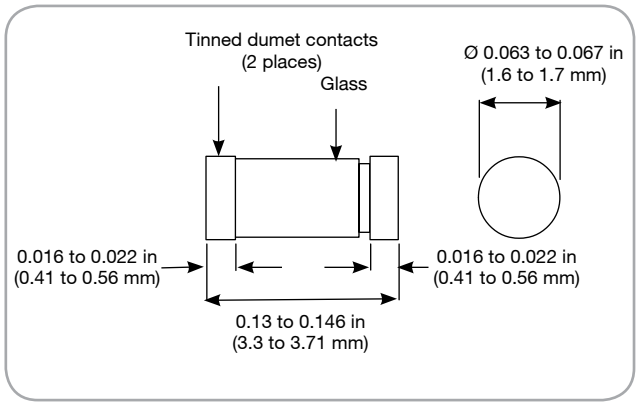
Glass encapsulated SMD thermistor

Description

Hermetically sealed, glass encapsulated thermistor in SOD-80 SMD package.

Options

- For ±5% @ 77°F (25°C), replace “K” with “J”
- For ±3% @ 77°F (25°C), replace “K” with “H”
- For ±2% @ 77°F (25°C), replace “K” with “G”
- For reel taping add “R” suffix
- Other resistances in the range 250 Ω to 5 MΩ available
- Other tolerances, tolerances at other temperatures



NTC Type MELF dimensions

Data

- Standard resistance tolerance: ±10% @ 77°F (25°C)
- Dissipation constant: 3.0 mW/°C
- Time constant: 7 seconds
- Operating range: -58°F to 400°F (-50°C to 204°C

Ro@25° C (Ω)	Material System	Beta 25/85	Type Number
250	GE5.5*	2983	03006-165.9-55-K
500	GE5.5*	2983	03006-331.8-55-K
1K	GE7.3	3499	03006-624-73-K
2K	GE7.3	3499	03006-1248-73-K
2786	GE10.1	4102	03006-1576-101-K
3K	GE7.6	3553	03006-1847-76-K
4K	GE7.6	3553	03006-2463-76-K
5K	GE7.6	3553	03006-3079-76-K
10K	GE9.7A	3992	03006-5818-97-K
20K	GE9.8	3974	03006-11.7K-98-K
30K	GE9.8	3974	03006-17.53K-98-K
50K	GE9.7B	3952	03006-29.1K-97-K
100K	GE9.7B	3952	03006-58.2-97-K
200K	GE12.3	4365	03006-111.3K-123-K
500K	GE13.8	4567	03006-269.8K-138-K
1M	GE14.5	4661	03006-535K-145-K
5M	GE16.4	4848	03006-2.6M-164-K

**maximum operating temperature 302°F (150°C)*

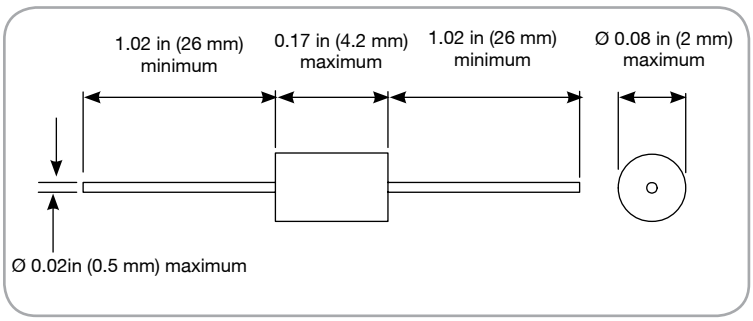
Type TH Specifications

Glass encapsulated radial lead thermistor

Part Number	Resistance (25 Ω)	ß Constant (25/50)	Recommended Maximum Operating Current at 77°F (25ºC)	Maximum Permissible Current at 77°F (25ºC)
TH220J33G	2.0 K	3375 K	0.22 mA	30.0 mA
TH225J13G	2.545 K	3745 K	0.22 mA	30.0 mA
TH238J34G	3.896 K	3434 K	0.20 mA	26.5 mA
TH253J34G	5.369 K	3434 K	0.16 mA	24.0 mA
TH310J34G	10.74 K	3434 K	0.13 mA	20.0 mA
TH310J36G	10.0 K	3684 K	0.14 mA	20.0 mA
TH310J39G	10.0 K	3933 K	0.14 mA	20.0 mA
TH315J39G	15.0 K	3933 K	0.12 mA	17.0 mA
TH320J39G	20.0 K	3952 K	0.10 mA	15.0 mA
TH349J39G	49.12 K	3952 K	0.06 mA	10.0 mA
TH350J39G	50.0 K	3952 K	0.06 mA	10.0 mA
TH398J40G	98.63 K	4014 K	0.045 mA	5.0 mA
TH410J40G	100.0 K	4014 K	0.045 mA	5.0 mA
TH420J34G	200.0 K	3450 K	0.015 mA	3.5 mA
TH423J41G	231.4 K	4176 K	0.015 mA	3.5 mA
TH510J44G	1,000 K	4491 K	0.007 mA	1.5 mA
TH513J44G	1,388 K	4491 K	0.005 mA	1.0 mA

- The tolerance of resistance is ±5% for standard device
- The tolerance of B constant is ±2% for standard device The constant is determined by the equation:
  B = 3853.9 ln (R25/R50)
  R25 and R50 represent the thermistor resistance
  at 77°F and 122°F (25°C and 50°C) respectively
- Others: For non-standard devices, consult Thermometrics

Dissipation Factor (in still air)	Time Constant (in still air)	Operating Temperature Range	Rated Power at 77°F (25ºC)
2.0 (mW/ºC)	25 (seconds)	-40°F to 482°F (-40°C to 250ºC)	25 mW



NTC Type TH dimensions

Explanation of Part Number

TH	410	S	40	F	D	SN	-	T5
(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)

1	2	3 / 5	4	6	7	8
Type	Resistance R(25°C)	Resistance / B Value Tolerance	B Value Range	Standard Temperature	Lead Wire Type	Packing & Other Description
Diode Type Thermistor	225:25x10^2 = 2.5kΩ 310:10x103 =10kΩ 410:10x10^4 =100kΩ	F : ± 1% G : ± 2% H : ± 3% J : ± 5% K : ± 10% L : ± 15% M : ± 20% : : S : others S : ± 1.5%	33:3300k ~3399k 40:4000k ~4099k 42:4200k ~4299k	J : -18°C A : 0°C B : 25°C C : 50°C D : 75°C E : 85°C F : 100°C G : 150°C H : 200°C : : S : others	NR : CP wire NI : Ni plated Sn : Sn plated : : : : S : others	T5 : Taping (52mm, Ammo) ---------- R3 : Reel (52mm, 3KP) ---------- C11 : 11mm (Wire cutting) ---------- Other Special Shape or Dim

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