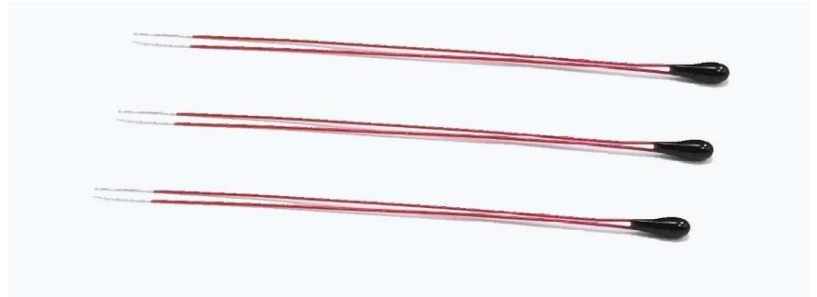


Semitec ET – Miniature Epoxy NTC Thermistor

Originally designed for clinical thermometers, this versatile, small bead NTC thermistor is ideal for a wide range of low-cost, high sensitivity applications. It has a fast 3.2-second response time in air and high accuracy.

The ET series offers options with rigid or flexible lead-wires. The ET-1 version includes a strain-relief point to minimise bead size and maximise response, while the ET-3H versions have lacquered lead-wires for insulation and protection in heat detector applications.



Alongside a wide range of nominal R25 values, the ET thermistors allow point-calibration at 37°C (±1% tolerance) and can be matched to ±0.1°C accuracy for a small, high-precision, and cost effective solution for medical and volume applications.

Operating temperature range

- 40°C - +90°C (+100°C for some models)

Features:

- Highly accurate and very fast response
- Tight resistance and B-value tolerances
- Small epoxy bead size <1.6mm
- Various insulated lead-wire options
- Long term reliability

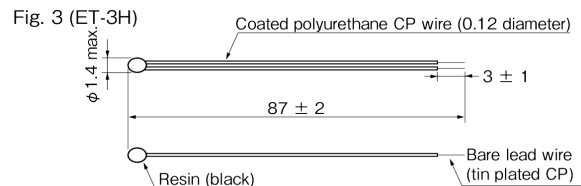
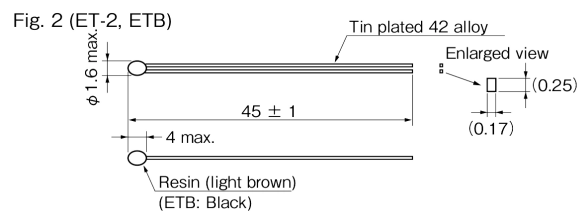
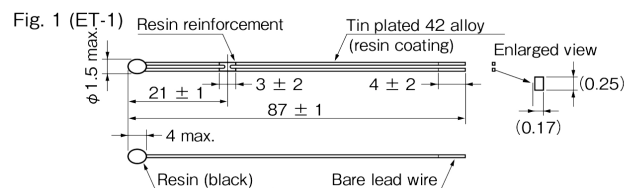
Applications:

- Medical thermometers
- Wearable tracker devices
- Battery chargers and battery packs
- Heat detectors and fire detectors
- Room thermostats
- Home automation products

Specifications:

Product number	R ₂₅ ¹	R ₂₅ tolerance	B value ²	Operating temperature range (°C)	
212ET	2.10 kΩ	± 3%	3850 K ± 1%	- 40 to 90	
402ET	4.00 kΩ		3100 K ± 1%		
582ET	5.80 kΩ		3614 K ± 1%		
103ET	10.0 kΩ		3250 K ± 1%		
203ET	20.0 kΩ		3450 K ± 1%		
303ET	30.0 kΩ		3760 K ± 1%		
403ET	40.0 kΩ		3525 K ± 1%		- 40 to 100
503ET	50.0 kΩ		4055 K ± 1%		
833ET	83.0 kΩ		4013 K ± 1%		
104ET	100 kΩ		4132 K ± 1%		
224ET	226 kΩ	± 1%, ± 2%	4021 K ± 1%	- 40 to 90	
234ET	232 kΩ		4274 K ± 1%	- 40 to 100	
103ETB	10.0 kΩ		3435 K ± 1%	- 40 to 90	

Drawings:



Unit: mm

- Dissipation factor: 0.7 mw / °C
 - Thermal time constant³: approx. 3.4 s (ET-1: approx. 3.2 s)
 - Rated power at 25 °C: 3.5 mW
 - Rated zero-power resistance at 25 °C
 - B value calculated from rated zero-power resistance at 25 °C and 85 °C
 - Time required to reach 63.2% of temperature difference. Measured with sensor suspended in mid-air.
- | Product number | R ₃₇ ⁴ | R ₃₇ tolerance | B value ⁵ | Operating temperature range (°C) |
|----------------|------------------------------|---------------------------|----------------------|----------------------------------|
| 503ET-3H | 29.937 kΩ | ± 1.08% | 3944 K ± 0.5% | - 40 to 100 |
- Dissipation factor: 0.7 mw / °C
 - Thermal time constant⁶: approx. 0.8 s
 - Rated power at 25 °C: 3.5 mW
 - Rated zero-power resistance at 37 °C
 - B value calculated from rated zero-power resistance at 30 °C and 45 °C
 - Time required to reach 63.2% of temperature difference. Measured with sensor immersed in oil.

For further information please contact us at sales@atcsemitec.co.uk