

Description

Type RA are directly heated bead type thermistors primarily intended for applications where high sensitivity to electrical power input is required.

The thermistor element consists of a very small bead of thermistor material, approximately 0.25mm (0.010 in.) in diameter, which is integrally formed on two parallel platinum alloy wires. These wires are then welded to conical lead wires and the whole assembly is sealed in an evacuated glass envelope.

Applications of these thermistors include amplitude control, voltage stabilisation, time delay and power measurement.

Data

Resistance tolerance at 25°C	± 20%
B value tolerance 25-85°C	± 5%
T _{A max}	155°C
T _{B max}	225°C
P _{max}	2.95 mW at 25°C
k	12.5 μ W/°C between 25 and 100°C
.....	16.0 μ W/°C between 100 and 225°C
τ	11s
Weight	0.5g

Power Derating

Derate linearly to 1 mW at 155°C

Code	R ₂₀ Ω	R ₂₅ Ω	R _{min} Ω	B ₂₅₋₈₅ K
RA52	500	430	18	2650
RA13	1k	852	29	2800
RA23	2k	1.7k	44	3000
RA53	5k	4.2k	79	3250
RA14	10k	8.2k	120	3450
RA24	20k	16.3k	198	3600
RA54	50k	40.1k	350	3850
RA15	100k	79.3k	540	4050
RA25	200k	157k	890	4200

○ NTC Thermistors

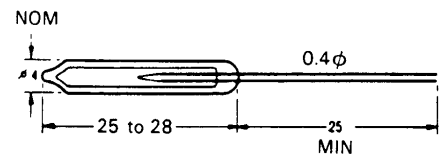
INDUSTRIAL/CONSUMER

TELECOMMUNICATIONS/DP

PROFESSIONAL

TYPE **RA**

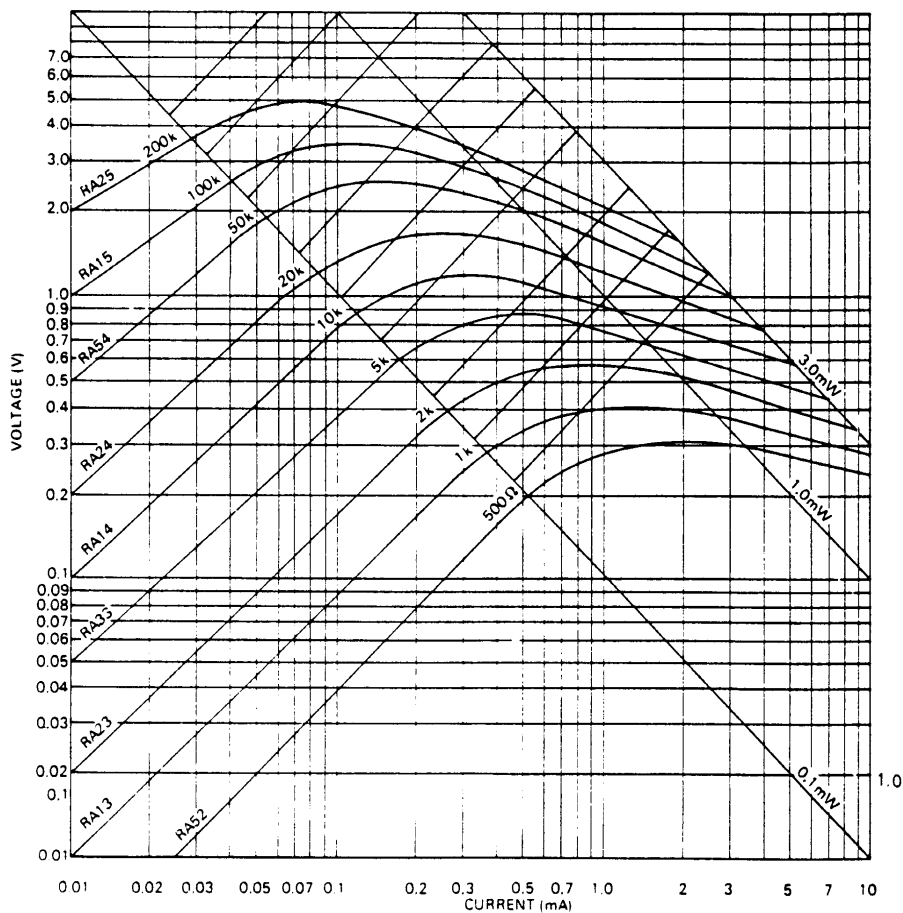
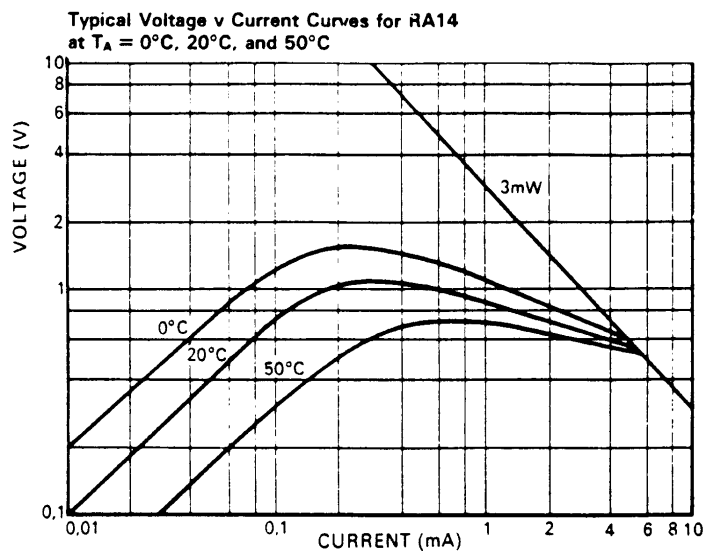
Outline



Amplitude & Gain Control

Power Measurement & Control

Voltage Stabilisation



OPERATING:

Thermistors are designed to be intrinsically safe components provided they are operated within the rated voltages or currents and inside the recommended temperature range.

STORAGE :

The normal care required for electronic components should be exercised.

DISPOSAL :

No special hazards are involved in disposal. Incineration of thermistors is not recommended due to the emission of toxic fumes from epoxy coated devices or the shattering of glass and/or ceramic with possible hazard from hot jagged material.

PHYSICAL FORM :

The wire ends should not be bent nearer than 3mm to the glass body of the thermistor

Performance figures and data quoted in this document are typical and must be specifically confirmed in writing by BOWTHORPE THERMISTORS before they become applicable to any particular order or contract. The company reserves the right to make alterations or amendments to the detailed specification at its discretion. The publication of information in this document does not imply freedom from patent or other protective rights of Bowthorpe Thermistors or others.

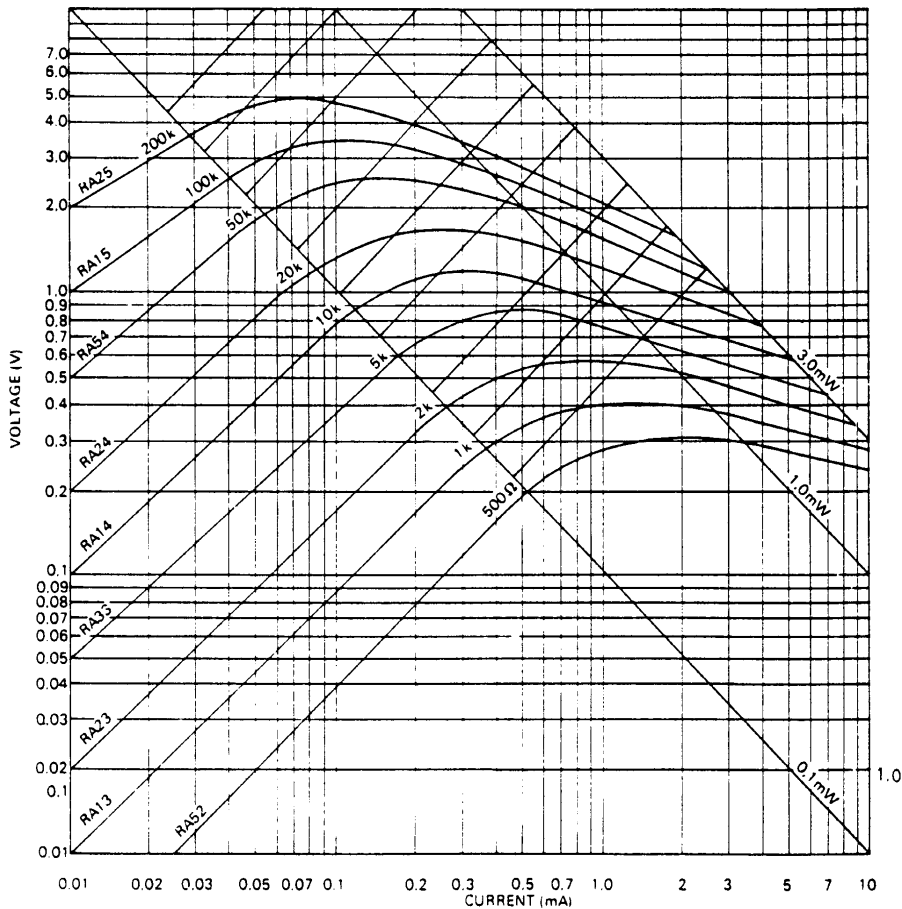
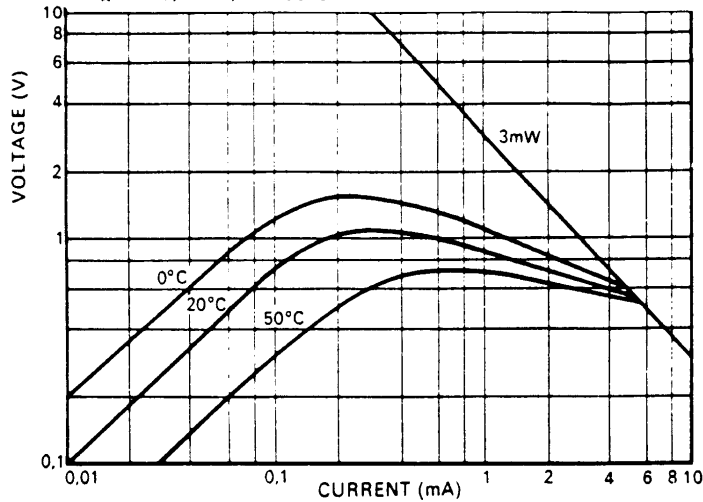
May 1989

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BOWTHORPE THERMISTORS
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PRIORSWOOD ROAD
TAUNTON
SOMERSET TA2 8QY

TELEPHONE 0823 335200

Typical Voltage v Current Curves for RA14
at $T_A = 0^\circ\text{C}$, 20°C , and 50°C



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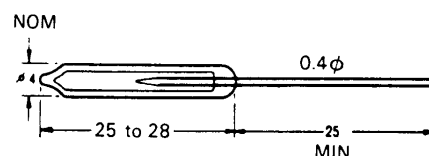
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