



Temperature Measurement

B57863

Miniature Sensors

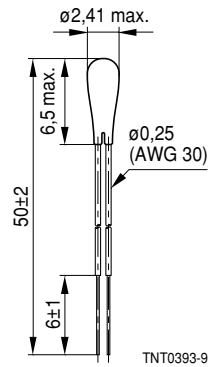
S 863

Applications

- Heating and air conditioning systems
- Industrial electronics
- Automotive electronics

Features

- Uni curve sensor
- Fast response
- High temperature accuracy between 0 °C and 70 °C
- Excellent long-term stability
- Epoxy resin encapsulation
- PTFE-insulated leads of silver-plated nickel wire, AWG 30



TNT0393-9

Delivery mode

Bulk

Dimensions in mm
Approx. weight 60 mg

Climatic category (IEC 60068-1)		55/155/56	
Max. power at 25 °C	P_{25}	60	mW
Temperature tolerance (0 ... 70 °C)	ΔT	$\pm 0,2, \pm 0,5$	K
Rated temperature	T_N	25	°C
Dissipation factor (in air)	δ_{th}	approx. 1,5	mW/K
Thermal cooling time constant (in air)	τ_c	approx. 15	s
Heat capacity	C_{th}	approx. 22,5	mJ/K

R_{25}	No. of R/T characteristic	$B_{25/100}$	Ordering code
Ω		K	
3 k	8016	3988	B57863S0302+040
5 k	8016	3988	B57863S0502+040
10 k	8016	3988	B57863S0103+040
30 k	8018	3964	B57863S0303+040

+: F for $\Delta T = 0,2$ K
G for $\Delta T = 0,5$ K

For calculation of the R/T characteristics refer to our special tool "NTC R/T calculation". You may download this tool either from Internet (<http://www.epcos.com> → Design Tools → NTC Thermistors → NTC R/T Calculation) or from the CD-ROM "Data Book Library" (Please order via Internet: Publications → General Publications).



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Reliability data

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typical)	Remarks
Storage in dry heat	IEC 60068-2-2	Storage at upper category temperature T: 155 °C t: 1000 h	< 1 % < 2 % ¹⁾	No visible damage
Storage in damp heat, steady state	IEC 60068-2-3	Temperature of air: 40 °C Relative humidity of air: 93 % Duration: 56 days	< 1 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: – 55 °C Upper test temperature: 155 °C Number of cycles: 100	< 1 %	No visible damage
Long-term stability (empirical value)		Temperature: 70 °C t: 10 000 h	< 2 %	No visible damage

1) For B57863S0302+040

Herausgegeben von EPCOS AG

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Published by EPCOS AG

Corporate Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

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