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Vishay/BCcomponents
NTCASCWE3103J

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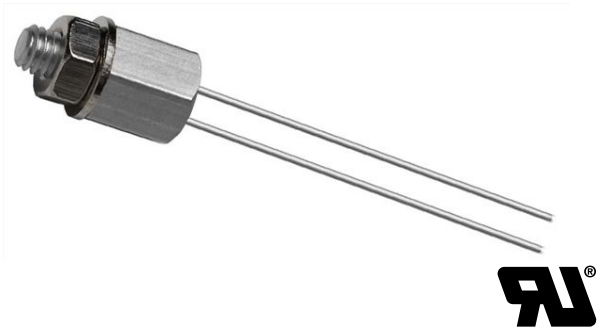
NTC Thermistors, Screw Threaded Sensors



FEATURES

- Easy mounting with screw
- Rugged construction
- UL recognized, file E148885 (UL category XGPU2)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

APPLICATIONS

- Temperature measurement, sensing and control
- Suitable for surface temperature applications, especially when a good electrical insulation and a good thermal contact with the chassis is required

DESCRIPTION

The thermistors are made of NTC ceramic material reflow soldered between two solid tinned copper or nickel wires and potted in the head of passivated aluminum screw size M4.

PACKAGING

The thermistors are packed in cardboard boxes; the smallest packaging quantity is 100 units.

DESIGN IN SUPPORT

For complete Curve Computation, visit:
www.vishay.com/resistors-non-linear/curve-computation-list

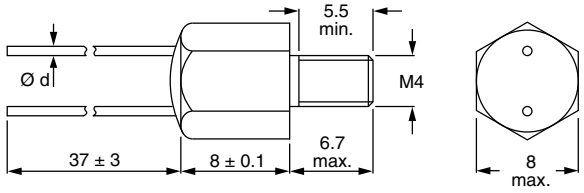
MARKING

4 digits marking indicating resistance value and tolerance in accordance with the information in Electrical Data and Ordering Information table.

MOUNTING

By means of a washer and M4 nut supplied with the device or in a threaded screw hole. Applied torque shall not exceed 1.2 Nm. Leads to be soldered or crimped.

DIMENSIONS in millimeters



Component outline

QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Resistance value at 25 °C	1K to 470K	Ω
Tolerance on R_{25}-value	± 1, ± 2, ± 5	%
$B_{25/85}$-value	3528 to 4570	K
Tolerance on $B_{25/85}$-value	± 0.5 to ± 2.5	%
Operating temperature range at: Zero dissipation Maximum power dissipation	 -40 to +100 0 to +55	°C
Dissipation factor (1)	≈ 23	mW/K
Maximum power dissipation	500	mW
Thermal time constant (1)	≈ 7.5	s
Min. dielectric withstanding voltage between terminals and Al case	1500 (1 s)	V_{AC}
Insulation resistance between terminals and Al case	min. 100	MΩ
Weight	≈ 1.5	g

Notes

- Other R_{25}-values and tolerances are available upon request
- Insulated leads available upon request

(1) Measured with screw mounted on an aluminium heatsink of 100 cm², thickness 1.5 mm, in still air at T_{amb} = +25 °C

ELECTRICAL DATA AND ORDERING INFORMATION

R_{25} (kΩ)	TOLERANCE ON R_{25}	$B_{25/85}$-VALUE	LEADS DIAMETER Ø d (mm)	TCR (%/K)	SAP MATERIAL NUMBER AND ORDERING CODE	MARKING CODE
1.0	± 5 %	3528K ± 0.5 %	0.6	-3.87	NTCASCWE3102J	102J
2.2	± 5 %	3977K ± 0.75 %	0.6	-4.37	NTCASCWE3222J	222J
4.7	± 1 %	3977K ± 0.75 %	0.5	-4.37	NTCASCWE3472F	472F
4.7	± 2 %	3977K ± 0.75 %	0.5	-4.37	NTCASCWE3472G	472G
4.7	± 5 %	3977K ± 0.75 %	0.6	-4.37	NTCASCWE3472J	472J
10	± 1 %	3977K ± 0.75 %	0.5	-4.37	NTCASCWE3103F	103F
10	± 2 %	3977K ± 0.75 %	0.5	-4.37	NTCASCWE3103G	103G
10	± 5 %	3977K ± 0.75 %	0.6	-4.37	NTCASCWE3103J	103J
12	± 5 %	3740K ± 1.5 %	0.6	-4.10	NTCASCWE3123J	123J
15	± 5 %	3740K ± 1.5 %	0.6	-4.10	NTCASCWE3153J	153J
47	± 5 %	4090K ± 1.5 %	0.6	-4.46	NTCASCWE3473J	473J
100	± 1 %	4190K ± 1.5 %	0.5	-4.57	NTCASCWE3104F	104F
100	± 2 %	4190K ± 1.5 %	0.5	-4.57	NTCASCWE3104G	104G
100	± 5 %	4190K ± 1.5 %	0.6	-4.57	NTCASCWE3104J	104J
150	± 5 %	4370K ± 2.5 %	0.6	-4.75	NTCASCWE3154J	154J
470	± 5 %	4570K ± 2 %	0.6	-4.95	NTCASCWE3474J	474J

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