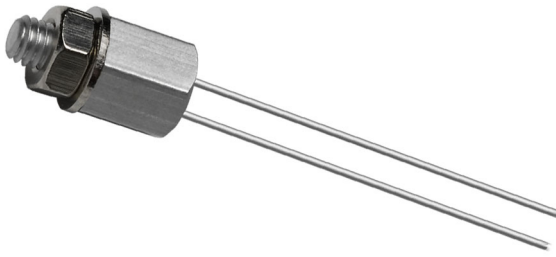


NTC Thermistors, Screw Threaded Sensors



FEATURES

- Easy mounting with screw
- Rugged construction
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?999912


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

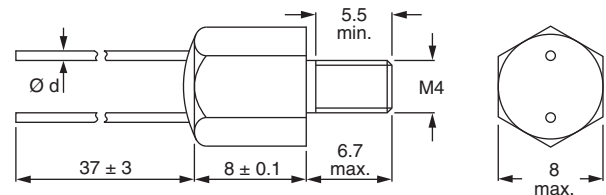
MARKING

The last 4 digits of the 12NC code are printed on the stud 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 | 3740 to 4570 | K |
| Tolerance on $B_{25/85}$ -value | ± 0.5 to ± 2.5 | % |
| Operating temperature range at: Zero dissipation | - 40 to + 100 | °C |
| Maximum power dissipation | 0 to + 55 | |
| 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 | OLD 12NC CODE |
|------------------|--------------------------|--------------------|----------------------------|--------------|--|----------------|
| 1.0 | ± 5 % | 3528K ± 0.5 % | 0.6 | - 3.87 | NTCASCWE3102J | 2381 640 73102 |
| 2.2 | ± 5 % | 3977K ± 0.75 % | 0.6 | - 4.37 | NTCASCWE3222J | 2381 640 73222 |
| 4.7 | ± 1 % | 3977K ± 0.75 % | 0.5 | - 4.37 | NTCASCWE3472F | 2381 640 75472 |
| 4.7 | ± 2 % | 3977K ± 0.75 % | 0.5 | - 4.37 | NTCASCWE3472G | 2381 640 74472 |
| 4.7 | ± 5 % | 3977K ± 0.75 % | 0.6 | - 4.37 | NTCASCWE3472J | 2381 640 73472 |
| 10 | ± 1 % | 3977K ± 0.75 % | 0.5 | - 4.37 | NTCASCWE3103F | 2381 640 75103 |
| 10 | ± 2 % | 3977K ± 0.75 % | 0.5 | - 4.37 | NTCASCWE3103G | 2381 640 74103 |
| 10 | ± 5 % | 3977K ± 0.75 % | 0.6 | - 4.37 | NTCASCWE3103J | 2381 640 73103 |
| 12 | ± 5 % | 3740K ± 1.5 % | 0.6 | - 4.10 | NTCASCWE3123J | 2381 640 73123 |
| 15 | ± 5 % | 3740K ± 1.5 % | 0.6 | - 4.10 | NTCASCWE3153J | 2381 640 73153 |
| 47 | ± 5 % | 4090K ± 1.5 % | 0.6 | - 4.46 | NTCASCWE3473J | 2381 640 73473 |
| 100 | ± 1 % | 4190K ± 1.5 % | 0.5 | - 4.57 | NTCASCWE3104F | 2381 640 75104 |
| 100 | ± 2 % | 4190K ± 1.5 % | 0.5 | - 4.57 | NTCASCWE3104G | 2381 640 74104 |
| 100 | ± 5 % | 4190K ± 1.5 % | 0.6 | - 4.57 | NTCASCWE3104J | 2381 640 73104 |
| 150 | ± 5 % | 4370K ± 2.5 % | 0.6 | - 4.75 | NTCASCWE3154J | 2381 640 73154 |
| 470 | ± 5 % | 4570K ± 2 % | 0.6 | - 4.95 | NTCASCWE3474J | 2381 640 73474 |



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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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