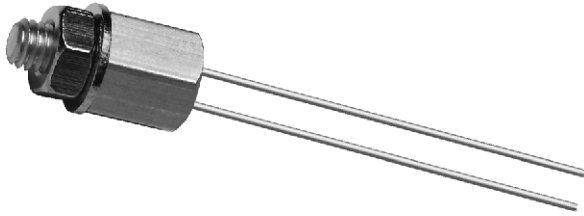


## NTC Thermistors, Screw Threaded Sensors



QUICK REFERENCE DATA	
PARAMETER	VALUE
Resistance value at 25 °C	1.0 kΩ to 470 kΩ
Tolerance on $R_{25}$ - value	± 1 %, ± 2 %, ± 5 %
Tolerance on $B_{25/85}$ - value	± 0.5 % to ± 2.5 %
$B_{25/85}$ - value	3740K to 4570K
Maximum dissipation	500 mW
Dissipation factor <sup>(1)</sup>	≈ 23 mW/K
Thermal time constant <sup>(1)</sup>	≈ 7.5 s
Operating temperature range at:	
Zero dissipation	- 40 °C to + 100 °C
Maximum dissipation	0 °C to + 55 °C
Weight	≈ 1.5 g
Min. dielectric withstanding voltage between terminals and Al case	1500 V <sub>ac</sub> (1 s)
Insulation resistance between terminals and Al case	min. 100 MΩ

**Notes**

- <sup>(1)</sup> Measured with screw mounted on an aluminium heatsink of 100 cm<sup>2</sup>, thickness 1.5 mm, in still air at T<sub>amb</sub> = + 25 °C
- Other  $R_{25}$  values based on 640 0 series are available upon request
- Other tolerances on  $R_{25}$  are available upon request
- Insulated leads available upon request

**FEATURES**

- Easy mounting
- Rugged construction
- Replaces the serie 2322 640 7....
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT

**APPLICATIONS**

Temperature measurement, sensing and control. Suitable for many 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.

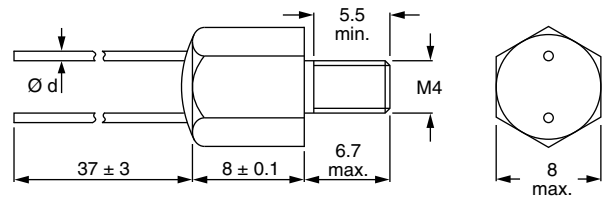
**MARKING**

The last 4 digits of the catalog number 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

**ELECTRICAL DATA AND ORDERING INFORMATION**

$R_{25}$ (kΩ)	TOLERANCE ON $R_{25}$	$B_{25/85}$ - VALUE	LEADS DIAMETER Ø d (mm)	TCR (%/K)	12NC CODE	SAP MATERIAL NO. AND ORDERING CODE
1.0	± 5 %	3528K ± 0.5 %	0.6	- 3.87	2381 640 73102	NTCASCWE3102J
2.2	± 5 %	3977K ± 0.75 %	0.6	- 4.37	2381 640 73222	NTCASCWE3222J
4.7	± 5 %	3977K ± 0.75 %	0.6	- 4.37	2381 640 73472	NTCASCWE3472J
10	± 1 %	3977K ± 0.75 %	0.5	- 4.37	2381 640 75103	NTCASCWE3103F
10	± 2 %	3977K ± 0.75 %	0.5	- 4.37	2381 640 74103	NTCASCWE3103G
10	± 5 %	3977K ± 0.75 %	0.6	- 4.37	2381 640 73103	NTCASCWE3103J
12	± 5 %	3740K ± 1.5 %	0.6	- 4.10	2381 640 73123	NTCASCWE3123J
15	± 5 %	3740K ± 1.5 %	0.6	- 4.10	2381 640 73153	NTCASCWE3153J
47	± 5 %	4090K ± 1.5 %	0.6	- 4.46	2381 640 73473	NTCASCWE3473J
100	± 1 %	4190K ± 1.5 %	0.5	- 4.57	2381 640 75104	NTCASCWE3104F
100	± 2 %	4190K ± 1.5 %	0.5	- 4.57	2381 640 74104	NTCASCWE3104G
100	± 5 %	4190K ± 1.5 %	0.6	- 4.57	2381 640 73104	NTCASCWE3104J
150	± 5 %	4370K ± 2.5 %	0.6	- 4.75	2381 640 73154	NTCASCWE3154J
470	± 5 %	4570K ± 2 %	0.6	- 4.95	2381 640 73474	NTCASCWE3474J

**Notes**

- $R_{25}$  - values, temperature coefficients and catalog numbers
- The thermistors have a 12-digit catalog number starting with 2381 640 7. The subsequent 4 digits indicate the resistance value and tolerance.



## Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.