



Sample Kit Surface Mount Thermistors NTCS, TFPT, NTHS, PTS



FEATURES

- NTC and PTC thermistors
- AEC-Q200 qualified and UL certified products available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

The commercial-off-the-shelf thermistors are now conveniently taped in strips, individually labeled and packaged in new engineering design kits.

| SPECIFICATIONS | | | | |
|-----------------------------------|------------------------------------------------|-----------------------|-----------------------|-----------------------|
| Engineering kit | SMD Thermistors-Sample Kit | | | |
| Thermistor series | NTCS, NTCS...SMT | NTHS | PTS | TFPT |
| Case size | 0402, 0603, 0805 | 0603, 0805, 1206 | 0603, 0805, 1206 | 0603, 0805, 1206 |
| Resistance range | 2 kΩ to 680 kΩ | 22 kΩ to 330 kΩ | 100 Ω to 1 kΩ | 100 Ω to 10 kΩ |
| Tolerance | ± 1 %, ± 3 %, ± 5 % | ± 5 % | ± 0.3 K | ± 1 % |
| B _{25/85} /TCR | 3420 K to 4125 K | 3715 K to 4073 K | 3850 ppm/°C | 4110 ppm/°C |
| Number of SAP materials | 67 | 15 | 5 | 22 |
| Thermistors per value / case size | 100 pieces / 0402 50 pieces / 0603 and 0805 | 50 pieces / case size | 25 pieces / case size | 25 pieces / case size |

Note

- For further information please refer to product datasheet:
 NTCS0402: www.vishay.com/doc?29003; NTCS0603: www.vishay.com/doc?29056; NTCS0805: www.vishay.com/doc?29044;
 NTCS...SMT: www.vishay.com/doc?29151; NTHS: www.vishay.com/doc?33008; PTS: www.vishay.com/doc?28762;
 TFPT: www.vishay.com/doc?33017.

| PART NUMBER AND PRODUCT DESCRIPTION | | | | | | | | | | | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| PART NUMBER: NTCSTFPTNTHSPTSLAB | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; text-align: center;"> <tr> <td>N</td><td>T</td><td>C</td><td>S</td><td>T</td><td>F</td><td>P</td><td>T</td><td>N</td><td>T</td><td>H</td><td>S</td><td>P</td><td>T</td><td>S</td><td>L</td><td>A</td><td>B</td> </tr> </table> | | N | T | C | S | T | F | P | T | N | T | H | S | P | T | S | L | A | B |
| N | T | C | S | T | F | P | T | N | T | H | S | P | T | S | L | A | B | | |
| <table border="1" style="margin: auto;"> <tr><td>KIT</td></tr> <tr><td>NTCSTFPTNTHSPTSLAB</td></tr> </table> | | KIT | NTCSTFPTNTHSPTSLAB | | | | | | | | | | | | | | | | |
| KIT | | | | | | | | | | | | | | | | | | | |
| NTCSTFPTNTHSPTSLAB | | | | | | | | | | | | | | | | | | | |
| PRODUCT DESCRIPTION: SMD THERMISTORS LAB e3 | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="margin: auto;"> <tr><td>SMD THERMISTORS LAB</td></tr> <tr><td>KIT</td></tr> <tr><td>Laboratory kit, SMD thermistors</td></tr> </table> | SMD THERMISTORS LAB | KIT | Laboratory kit, SMD thermistors | <table border="1" style="margin: auto;"> <tr><td>e3</td></tr> <tr><td>LEAD (Pb)-FREE</td></tr> <tr><td>e3 = pure tin termination finish</td></tr> </table> | e3 | LEAD (Pb)-FREE | e3 = pure tin termination finish | | | | | | | | | | | | |
| SMD THERMISTORS LAB | | | | | | | | | | | | | | | | | | | |
| KIT | | | | | | | | | | | | | | | | | | | |
| Laboratory kit, SMD thermistors | | | | | | | | | | | | | | | | | | | |
| e3 | | | | | | | | | | | | | | | | | | | |
| LEAD (Pb)-FREE | | | | | | | | | | | | | | | | | | | |
| e3 = pure tin termination finish | | | | | | | | | | | | | | | | | | | |



ELECTRICAL DATA AND ORDERING INFORMATION

| NTCS AND NTHS SERIES | | | | | |
|-----------------------------|----------------------------------|-----------------------------------|------------------------------|--------------------------------------|--------------|
| SAP MATERIAL | R₂₅-VALUE (kΩ) | TOL. ON R₂₅ (%) | B_{25/85} (K) | TOL. ON B_{25/85} (%) | CURVE |
| NTCS0402E3472HMT | 4.7 | ± 3 | 3595 | ± 3 | - |
| NTCS0402E3472JMT | 4.7 | ± 5 | 3595 | ± 3 | - |
| NTCS0402E3103FLT | 10 | ± 1 | 3490 | ± 3 | - |
| NTCS0402E3103HLT | 10 | ± 3 | 3490 | ± 3 | - |
| NTCS0402E3103HHT | 10 | ± 3 | 3950 | ± 3 | - |
| NTCS0402E3103JHT | 10 | ± 5 | 3950 | ± 3 | - |
| NTCS0402E3153HHT | 15 | ± 3 | 3965 | ± 3 | - |
| NTCS0402E3153JHT | 15 | ± 5 | 3965 | ± 3 | - |
| NTCS0402E3223HMT | 22 | ± 3 | 3590 | ± 3 | - |
| NTCS0402E3223JMT | 22 | ± 5 | 3590 | ± 3 | - |
| NTCS0402E3333HMT | 33 | ± 3 | 3670 | ± 3 | - |
| NTCS0402E3333JMT | 33 | ± 5 | 3670 | ± 3 | - |
| NTCS0402E3473FXT | 47 | ± 1 | 4075 | ± 3 | - |
| NTCS0402E3473HXT | 47 | ± 3 | 4075 | ± 3 | - |
| NTCS0402E3683HHT | 68 | ± 3 | 3910 | ± 3 | - |
| NTCS0402E3683JHT | 68 | ± 5 | 3910 | ± 3 | - |
| NTCS0402E3104FHT | 100 | ± 1 | 3950 | ± 3 | - |
| NTCS0402E3104HHT | 100 | ± 3 | 3950 | ± 3 | - |
| NTCS0402E3214SMT | 210 | ± 1 | 3590 | ± 1 | - |
| NTCS0603E3202JLT | 2 | ± 5 | 3420 | ± 1 | - |
| NTCS0603E3222FMT | 2.2 | ± 1 | 3520 | ± 1 | - |
| NTCS0603E3272FMT | 2.7 | ± 1 | 3600 | ± 1 | - |
| NTCS0603E3472FHT | 4.7 | ± 1 | 3830 | ± 1 | - |
| NTCS0603E3472HHT | 4.7 | ± 3 | 3830 | ± 1 | - |
| NTCS0603E3103FLT | 10 | ± 1 | 3435 | ± 1 | - |
| NTCS0603E3103HLT | 10 | ± 3 | 3435 | ± 1 | - |
| NTCS0603E3103FMT | 10 | ± 1 | 3610 | ± 1 | - |
| NTCS0603E3103HMT | 10 | ± 3 | 3610 | ± 1 | - |
| NTCS0603E3103FHT | 10 | ± 1 | 3960 | ± 1 | - |
| NTCS0603E3103HHT | 10 | ± 3 | 3960 | ± 1 | - |
| NTCS0603E3153FMT | 15 | ± 1 | 3600 | ± 1 | - |
| NTCS0603E3153HMT | 15 | ± 3 | 3600 | ± 1 | - |
| NTCS0603E3223FMT | 22 | ± 1 | 3730 | ± 1 | - |
| NTCS0603E3223HMT | 22 | ± 3 | 3730 | ± 1 | - |
| NTCS0603E3333FHT | 33 | ± 1 | 3860 | ± 1 | - |
| NTCS0603E3333HHT | 33 | ± 3 | 3860 | ± 1 | - |
| NTCS0603E3473FHT | 47 | ± 1 | 3960 | ± 1 | - |
| NTCS0603E3473HHT | 47 | ± 3 | 3960 | ± 1 | - |
| NTCS0603E3683FHT | 68 | ± 1 | 3985 | ± 1 | - |
| NTCS0603E3683HHT | 68 | ± 3 | 3985 | ± 1 | - |
| NTCS0603E3104FXT | 100 | ± 1 | 4100 | ± 1 | - |
| NTCS0603E3104HXT | 100 | ± 3 | 4100 | ± 1 | - |
| NTCS0603E3124SMT | 122 | ± 1 | 3590 | ± 1 | - |
| NTCS0805E3222FMT | 2.2 | ± 1 | 3600 | ± 1 | - |
| NTCS0805E3472FMT | 4.7 | ± 1 | 3500 | ± 1 | - |
| NTCS0805E3103FLT | 10 | ± 1 | 3430 | ± 3 | - |
| NTCS0805E3103HLT | 10 | ± 3 | 3430 | ± 3 | - |
| NTCS0805E3103FMT | 10 | ± 1 | 3570 | ± 3 | - |
| NTCS0805E3103HMT | 10 | ± 3 | 3570 | ± 3 | - |
| NTCS0805E3103FHT | 10 | ± 1 | 3940 | ± 1 | - |
| NTCS0805E3103HHT | 10 | ± 3 | 3940 | ± 1 | - |
| NTCS0805E3153FMT | 15 | ± 1 | 3700 | ± 1 | - |
| NTCS0805E3223FHT | 22 | ± 1 | 3800 | ± 1 | - |
| NTCS0805E3333FHT | 33 | ± 1 | 3920 | ± 1 | - |
| NTCS0805E3473FHT | 47 | ± 1 | 3960 | ± 1 | - |
| NTCS0805E3683FXT | 68 | ± 1 | 4100 | ± 1 | - |
| NTCS0805E3683HXT | 68 | ± 3 | 4100 | ± 1 | - |



ELECTRICAL DATA AND ORDERING INFORMATION

Table with 6 columns: SAP MATERIAL, R25-VALUE (kΩ), TOL. ON R25 (%), B25/85 (K), TOL. ON B25/85 (%), CURVE. Rows include NTCS and NTHS series.

ELECTRICAL DATA AND ORDERING INFORMATION

Table with 7 columns: SAP MATERIAL, R0-VALUE (Ω), TOL. ON R0 (%), R25-VALUE (Ω), TOL. ON R25 (%), TCR (ppm/°C), TOL. ON TCR (ppm/°C)/TOL. CLASS. Rows include PTS and TFPT series.