



## 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](http://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 <sub>25/85</sub> /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](http://www.vishay.com/doc?29003); NTCS0603: [www.vishay.com/doc?29056](http://www.vishay.com/doc?29056); NTCS0805: [www.vishay.com/doc?29044](http://www.vishay.com/doc?29044);  
NTCS...SMT: [www.vishay.com/doc?29151](http://www.vishay.com/doc?29151); NTHS: [www.vishay.com/doc?33008](http://www.vishay.com/doc?33008); PTS: [www.vishay.com/doc?28762](http://www.vishay.com/doc?28762);  
TFPT: [www.vishay.com/doc?33017](http://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
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**ELECTRICAL DATA AND ORDERING INFORMATION**

<b>NTCS AND NTHS SERIES</b>					
<b>SAP MATERIAL</b>	<b>R<sub>25</sub>-VALUE (kΩ)</b>	<b>TOL. ON R<sub>25</sub> (%)</b>	<b>B<sub>25/85</sub> (K)</b>	<b>TOL. ON B<sub>25/85</sub> (%)</b>	<b>CURVE</b>
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**

NTCS AND NTHS SERIES					
SAP MATERIAL	R <sub>25</sub> -VALUE (kΩ)	TOL. ON R <sub>25</sub> (%)	B <sub>25/85</sub> (K)	TOL. ON B <sub>25/85</sub> (%)	CURVE
NTCS0805E3104FMT	100	± 1	3590	± 1	-
NTCS0805E3104HMT	100	± 3	3590	± 1	-
NTCS0805E3104FXT	100	± 1	4100	± 1	-
NTCS0805E3104HXT	100	± 3	4100	± 1	-
NTCS0805E3334FHT	330	± 1	3930	± 1	-
NTCS0805E3334HHT	330	± 3	3930	± 1	-
NTCS0805E3474FXT	470	± 1	4025	± 1	-
NTCS0805E3474HXT	470	± 3	4025	± 1	-
NTCS0805E3684FXT	680	± 1	4125	± 1	-
NTCS0805E3684HXT	680	± 3	4125	± 1	-
NTHS0603N01N1003JE	100	± 5	3974	± 3	1
NTHS0603N01N5002JE	50	± 5	3974	± 3	1
NTHS0603N01N3302JE	33	± 5	3974	± 3	1
NTHS0603N04N2203JE	220	± 5	4073	± 3	4
NTHS0603N05N2202JE	22	± 5	3900	± 3	5
NTHS0603N11N3002JE	30	± 5	3715	± 3	11
NTHS0805N01N5002JE	50	± 5	3974	± 3	1
NTHS0805N05N5002JE	50	± 5	3900	± 3	5
NTHS0805N17N1003JE	100	± 5	4073	± 3	17
NTHS0805N17N2003JE	200	± 5	4073	± 3	17
NTHS1206N01N1003JE	100	± 5	3974	± 3	1
NTHS1206N01N4702JE	4.7	± 5	3974	± 3	1
NTHS1206N04N2203JE	220	± 5	4262	± 3	4
NTHS1206N11N2202JE	2.2	± 5	3715	± 3	11
NTHS1206N17N1003JE	100	± 5	4073	± 3	17

**ELECTRICAL DATA AND ORDERING INFORMATION**

PTS AND TFPT SERIES						
SAP MATERIAL	R <sub>0</sub> -VALUE (Ω)	TOL. ON R <sub>0</sub> (%)	R <sub>25</sub> -VALUE (Ω)	TOL. ON R <sub>25</sub> (%)	TCR (ppm/°C)	TOL. ON TCR (ppm/°C)/TOL. CLASS
PTS060301B100RP100	100	± 0.12	-	-	3850	F0.3
PTS080501B100RP100	100	± 0.12	-	-	3850	F0.3
PTS080501B500RP100	500	± 0.12	-	-	3850	F0.3
PTS120601B100RP100	100	± 0.12	-	-	3850	F0.3
PTS120601B1K00P100	1K	± 0.12	-	-	3850	F0.3
TFPT0603L1000FV	-	-	100	± 1	4110	± 400
TFPT0603L1001FV	-	-	1K	± 1	4110	± 400
TFPT0603L1500FV	-	-	150	± 1	4110	± 400
TFPT0603L3300FV	-	-	330	± 1	4110	± 400
TFPT0603L3900FV	-	-	390	± 1	4110	± 400
TFPT0805L1000FV	-	-	100	± 1	4110	± 400
TFPT0805L1001FV	-	-	1K	± 1	4110	± 400
TFPT0805L1200FV	-	-	120	± 1	4110	± 400
TFPT0805L1501FV	-	-	1500	± 1	4110	± 400
TFPT0805L1800FV	-	-	180	± 1	4110	± 400
TFPT0805L1801FV	-	-	1.8K	± 1	4110	± 400
TFPT0805L2201FV	-	-	2.2K	± 1	4110	± 400
TFPT0805L3301FV	-	-	3.3K	± 1	4110	± 400
TFPT0805L3901FV	-	-	3.9K	± 1	4110	± 400
TFPT0805L4701FV	-	-	4.7K	± 1	4110	± 400
TFPT0805L5001FV	-	-	5K	± 1	4110	± 400
TFPT1206L1001FV	-	-	1K	± 1	4110	± 400
TFPT1206L1002FV	-	-	10K	± 1	4110	± 400
TFPT1206L2200FV	-	-	220	± 1	4110	± 400
TFPT1206L3900FV	-	-	390	± 1	4110	± 400
TFPT1206L5601FV	-	-	5.6K	± 1	4110	± 400
TFPT1206L6800FV	-	-	680	± 1	4110	± 400