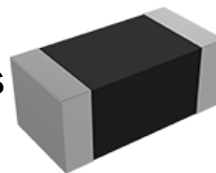


# Chip Temp. Sensing NTC Thermistor – SDNT Series

Operating Temp. : -55°C~+125°C



## FEATURES

- SMD type suitable for high density mounting
- Series of B constant for various applications
- Excellent solder ability

## APPLICATIONS

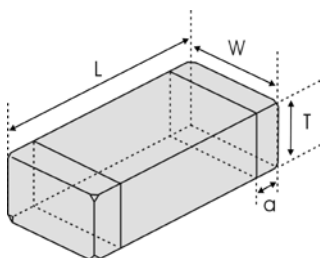
- Telecommunication equipments such as cellular phone, automobile phone, etc.
- Office automation such as printer, facsimile, word processor, etc.
- Battery, CPU temperature protection.

## PRODUCT IDENTIFICATION

<u>SDNT</u> ①	<u>1005</u> ②	<u>X</u> ③	<u>103</u> ④	<u>F</u> ⑤	<u>3380</u> ⑥	<u>F</u> ⑦	<u>T</u> ⑧	<u>F</u> ⑨																																																												
①	②	③	④	⑤	⑥	⑦	⑧	⑨																																																												
<table border="1"> <tr><th colspan="2">Type</th></tr> <tr><td>SDNT</td><td>Chip NTC Thermistor</td></tr> </table>	Type		SDNT	Chip NTC Thermistor	<table border="1"> <tr><th colspan="2">External Dimensions (LxW) (mm)</th></tr> <tr><td>0603 [0201]</td><td>0.6×0.3</td></tr> <tr><td>1005 [0402]</td><td>1.0×0.5</td></tr> <tr><td>1608 [0603]</td><td>1.6×0.8</td></tr> <tr><td>2012 [0805]</td><td>2.0×1.25</td></tr> </table>	External Dimensions (LxW) (mm)		0603 [0201]	0.6×0.3	1005 [0402]	1.0×0.5	1608 [0603]	1.6×0.8	2012 [0805]	2.0×1.25	<table border="1"> <tr><th colspan="2">Internal Code</th></tr> <tr><td>X</td><td></td></tr> <tr><td>C</td><td></td></tr> </table>	Internal Code		X		C		<table border="1"> <tr><th colspan="2">Zero-power Resistance</th></tr> <tr><th>Example</th><th>Nominal Value</th></tr> <tr><td>472</td><td>4.7kΩ</td></tr> <tr><td>103</td><td>10kΩ</td></tr> </table>	Zero-power Resistance		Example	Nominal Value	472	4.7kΩ	103	10kΩ	<table border="1"> <tr><th colspan="2">Tolerance of Resistance</th></tr> <tr><td>F</td><td>±1%</td></tr> <tr><td>H</td><td>±3%</td></tr> <tr><td>J</td><td>±5%</td></tr> <tr><td>K</td><td>±10%</td></tr> </table>	Tolerance of Resistance		F	±1%	H	±3%	J	±5%	K	±10%	<table border="1"> <tr><th colspan="2">B Constant (25-50°C)</th></tr> <tr><th>Example</th><th>Nominal Value</th></tr> <tr><td>3380</td><td>3380K</td></tr> <tr><td>4250</td><td>4250K</td></tr> </table>	B Constant (25-50°C)		Example	Nominal Value	3380	3380K	4250	4250K	<table border="1"> <tr><th colspan="2">Tolerance of B Constant</th></tr> <tr><td>F</td><td>±1%</td></tr> <tr><td>H</td><td>±3%</td></tr> </table>	Tolerance of B Constant		F	±1%	H	±3%	<table border="1"> <tr><th colspan="2">Packing</th></tr> <tr><td>T</td><td>Tape &amp; Reel</td></tr> </table>	Packing		T	Tape & Reel	<table border="1"> <tr><th colspan="2">Hazardous Substance Free Products</th></tr> <tr><td>F</td><td></td></tr> </table>	Hazardous Substance Free Products		F	
Type																																																																				
SDNT	Chip NTC Thermistor																																																																			
External Dimensions (LxW) (mm)																																																																				
0603 [0201]	0.6×0.3																																																																			
1005 [0402]	1.0×0.5																																																																			
1608 [0603]	1.6×0.8																																																																			
2012 [0805]	2.0×1.25																																																																			
Internal Code																																																																				
X																																																																				
C																																																																				
Zero-power Resistance																																																																				
Example	Nominal Value																																																																			
472	4.7kΩ																																																																			
103	10kΩ																																																																			
Tolerance of Resistance																																																																				
F	±1%																																																																			
H	±3%																																																																			
J	±5%																																																																			
K	±10%																																																																			
B Constant (25-50°C)																																																																				
Example	Nominal Value																																																																			
3380	3380K																																																																			
4250	4250K																																																																			
Tolerance of B Constant																																																																				
F	±1%																																																																			
H	±3%																																																																			
Packing																																																																				
T	Tape & Reel																																																																			
Hazardous Substance Free Products																																																																				
F																																																																				

## SHAPE AND DIMENSIONS

Unit: mm [inch]



Type	L	W	T	a
SDNT0603 [0201]	0.6±0.05 [.024±.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]
SDNT1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]
SDNT1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
SDNT2012 [0805]	2.0±0.2 [.079±.008]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]

## SPECIFICATIONS

### SDNT0603 TYPE

Part Number	Resistance at 25 °C	B Constant (25-50 °C)	Max. Permissive Operating Current (25 °C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT0603C103□3380◎TF	10	3380	0.31	<3 sec.	1.0	100
SDNT0603C223□3380◎TF	22	3380	0.21			
SDNT0603C473□4050◎TF	47	4050	0.14			
SDNT0603C683□4250◎TF	68	4250	0.12			
SDNT0603C104□4250◎TF	100	4250	0.10			

### SDNT1005 TYPE

Part Number	Resistance at 25 °C	B Constant (25-50 °C)	Max. Permissive Operating Current (25 °C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT1005X682□3950◎TF	6.8	3950	0.38	<3 sec.	1.0	100
SDNT1005X103□3380◎TF	10	3380	0.31			
SDNT1005X103□3950◎TF	10	3950	0.33			
SDNT1005X103□4050◎TF	10	4050	0.33			
SDNT1005X153□3450◎TF	15	3450	0.25			
SDNT1005X223□3950◎TF	22	3950	0.23			
SDNT1005X303□3950◎TF	30	3950	0.15			
SDNT1005X333□3950◎TF	33	3950	0.15			
SDNT1005X473□4050◎TF	47	4050	0.12			
SDNT1005X473□4100◎TF	47	4100	0.12			
SDNT1005X503□4100◎TF	50	4100	0.12			
SDNT1005X683□4150◎TF	68	4150	0.11			
SDNT1005X104□4150◎TF	100	4150	0.1			
SDNT1005X104□4250◎TF	100	4250	0.1			
SDNT1005X154□4150◎TF	150	4150	0.08			
SDNT1005X224□4250◎TF	220	4250	0.06			

### SDNT1608 TYPE

Part Number	Resistance at 25 °C	B Constant (25-50 °C)	Max. Permissive Operating Current (25 °C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT1608X222□3450◎TF	2.2	3450	0.67	<5 sec.	1.0	100
SDNT1608X472□3950◎TF	4.7	3950	0.46			
SDNT1608X502□3950◎TF	5	3950	0.44			
SDNT1608X103□3380◎TF	10	3380	0.31			
SDNT1608X103□3450◎TF	10	3450	0.31			
SDNT1608X103□3950◎TF	10	3950	0.33			
SDNT1608X153□3950◎TF	15	3950	0.25			
SDNT1608X223□3950◎TF	22	3950	0.21			
SDNT1608X223□4050◎TF	22	4050	0.21			

## SPECIFICATIONS

### SDNT1608 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissible Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT1608X333□4050◎TF	33	4050	0.17	<5 sec.	1.0	100
SDNT1608X473□4050◎TF	47	4050	0.14			
SDNT1608X473□4150◎TF	47	4150	0.14			
SDNT1608X503□4150◎TF	50	4150	0.13			
SDNT1608X683□4150◎TF	68	4150	0.12			
SDNT1608X104□3950◎TF	100	3950	0.1			
SDNT1608X104□4250◎TF	100	4250	0.1			
SDNT1608X124□4250◎TF	120	4250	0.1			
SDNT1608X154□4250◎TF	150	4250	0.08			
SDNT1608X224□4300◎TF	220	4300	0.06			

### SDNT2012 TYPE

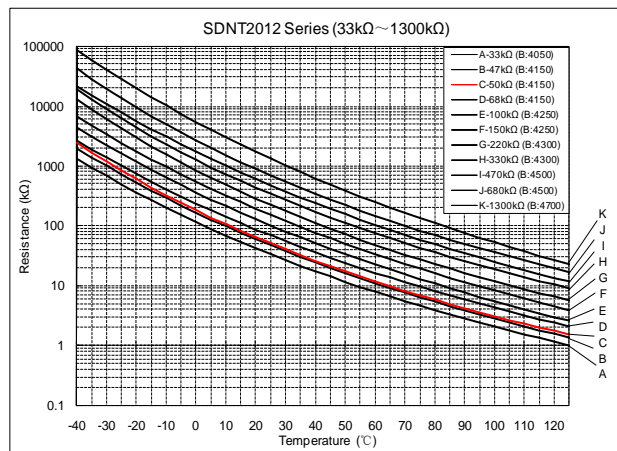
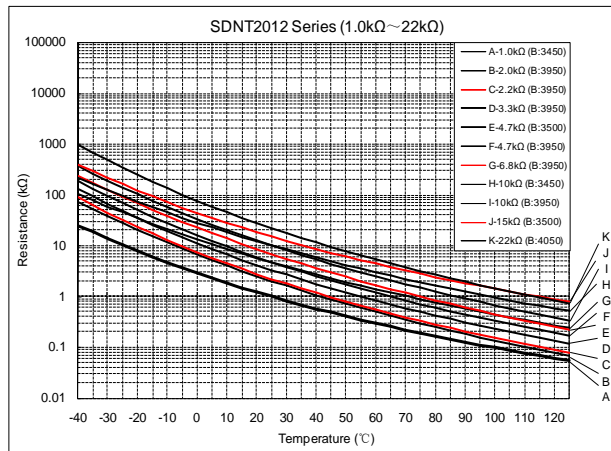
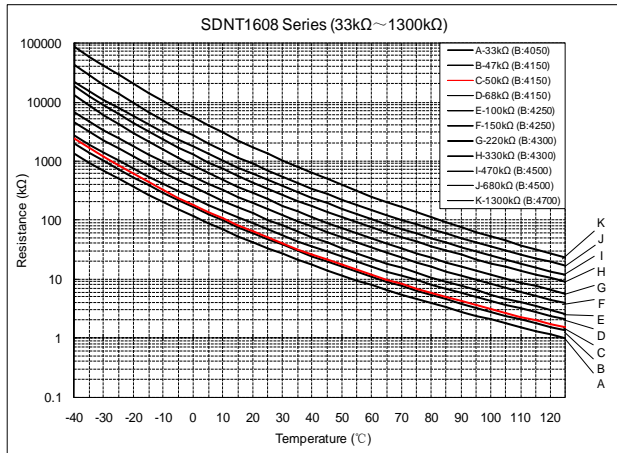
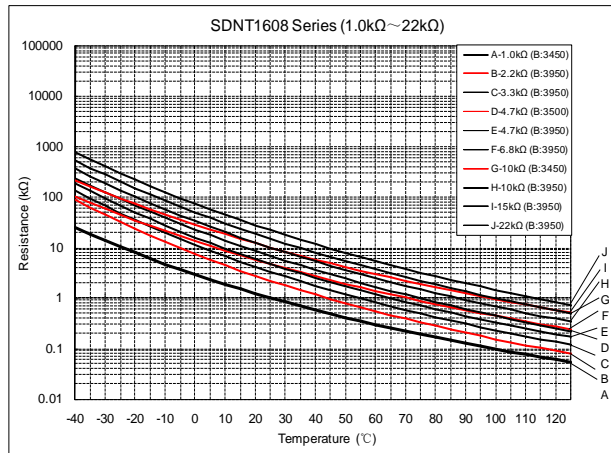
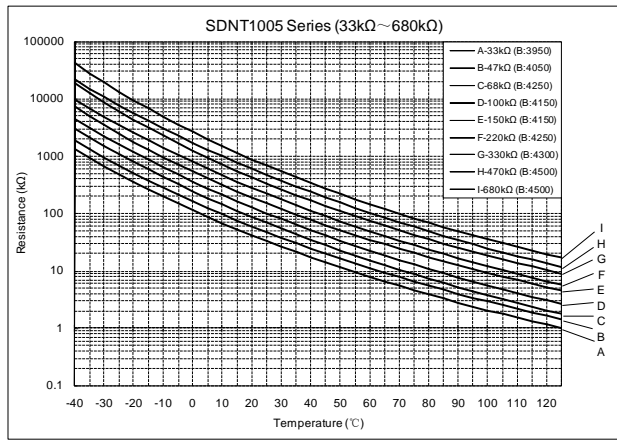
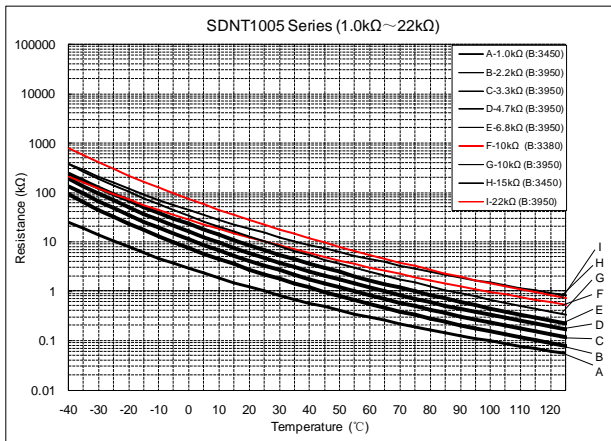
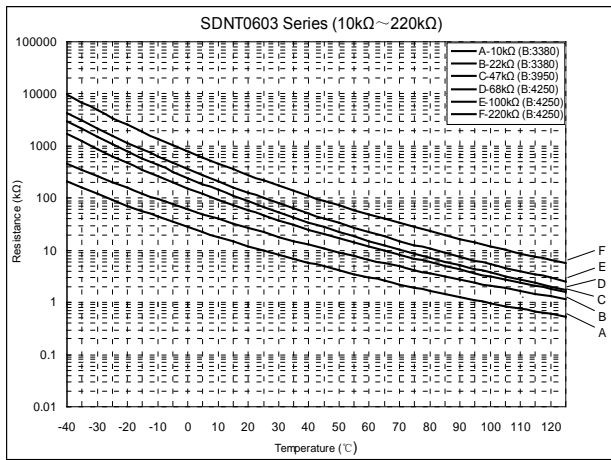
Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissible Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT2012X472□3950◎TF	4.7	3950	0.65	<5 sec.	2.0	200
SDNT2012X502□3950◎TF	5	3950	0.6			
SDNT2012X103□3450◎TF	10	3450	0.4			
SDNT2012X103□3950◎TF	10	3950	0.44			
SDNT2012X223□4050◎TF	22	4050	0.31			
SDNT2012X333□4050◎TF	33	4050	0.24			
SDNT2012X473□4050◎TF	47	4050	0.2			
SDNT2012X473□4150◎TF	47	4150	0.2			
SDNT2012X503□4150◎TF	50	4150	0.18			
SDNT2012X104□3950◎TF	100	3950	0.14			
SDNT2012X104□4250◎TF	100	4250	0.14			
SDNT2012X154□4250◎TF	150	4250	0.11			
SDNT2012X224□4300◎TF	220	4300	0.08			

※□: Please specify the resistance tolerance code (F=±1%, H=±3%, J=±5%, K=±10%).

※◎: Please specify the B value tolerance code (F=±1%, H=±3%).

And products with other electrical characteristics can be provided upon customer's request. Please contact your local sales.

# TYPICAL ELECTRICAL CHARACTERISTICS



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [NTC \(Negative Temperature Coefficient\) Thermistors](#) category:*

*Click to view products by [Sunlord](#) manufacturer:*

Other Similar products are found below :

[118-253FAJ-P01](#) [121-202EAC-P01](#) [123-802EAJ-P01](#) [128-105NDP-Q02](#) [135-503LAD-J01](#) [B57250V2104F360](#) [B57250V2473F560](#)  
[B57620C472K962](#) [NTCLE410E3103F](#) [A1004SG22P0](#) [199-303KAF-A02](#) [30054-4](#) [M09N038F](#) [B57423V2473H062](#) [B57471V2474H062](#)  
[B57620C5223J062](#) [500-52AA04-101](#) [526-31AA19-104](#) [526-31AN12-202](#) [103AT-5-1P-FT](#) [10K3A542I](#) [112-103FAG-H02](#) [112-104KAG-](#)  
[B01](#) [11028414-00](#) [111-182CAG-H01](#) [112-103FAF-H01](#) [112-104KBF-F01](#) [118-202CAJ-P01](#) [526-31AA79-102](#) [B57442V5103J62](#)  
[B57401V2103H62](#) [B57621C5472J62](#) [11032565-00](#) [194303KEVA01](#) [NTCACAPE3C90193](#) [USP11595](#) [B57359V2224J260](#)  
[B57343V5103J360](#) [50070974-003-01](#) [189-602LDR-A01](#) [B57621C5472K062](#) [135-105QAF-J02](#) [B57421V2153J062](#) [B57230V2103H260](#)  
[B57471V2684H062](#) [B57471V2333H062](#) [126-153YJC-B01](#) [NTCS0603E3333FHT](#) [118-802EAJ-P01](#) [121-103FAC-Q02](#)