

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 solderability

APPLICATIONS

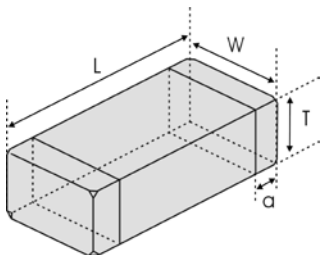
- Telecommunication equipments such as cellular phone, automobile phone, cordless phone, etc.
- Office automation such as printer, facsimile, word processor, etc.
- Consumer electronics such as VCR, DVD, CD players, etc.

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"> <thead> <tr><th colspan="2">Type</th></tr> </thead> <tbody> <tr><td>SDNT</td><td>Chip NTC Thermistor</td></tr> </tbody> </table>		Type		SDNT	Chip NTC Thermistor	<table border="1"> <thead> <tr><th colspan="2">External Dimensions (LxW) (mm)</th></tr> </thead> <tbody> <tr><td>0603 [0201]</td><td>0.6x0.3</td></tr> <tr><td>1005 [0402]</td><td>1.0x0.5</td></tr> <tr><td>1608 [0603]</td><td>1.6x0.8</td></tr> <tr><td>2012 [0805]</td><td>2.0x1.25</td></tr> </tbody> </table>		External Dimensions (LxW) (mm)		0603 [0201]	0.6x0.3	1005 [0402]	1.0x0.5	1608 [0603]	1.6x0.8	2012 [0805]	2.0x1.25	<table border="1"> <thead> <tr><th colspan="2">Internal Code</th></tr> </thead> <tbody> <tr><td colspan="2">X</td></tr> </tbody> </table>		Internal Code		X		<table border="1"> <thead> <tr><th colspan="2">Zero-power Resistance</th></tr> </thead> <tbody> <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> </tbody> </table>		Zero-power Resistance		Example	Nominal Value	472	4.7kΩ	103	10kΩ	<table border="1"> <thead> <tr><th colspan="2">Tolerance of Resistance</th></tr> </thead> <tbody> <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> </tbody> </table>		Tolerance of Resistance		F	±1%	H	±3%	J	±5%	K	±10%	<table border="1"> <thead> <tr><th colspan="2">B Constant (25-50°C)</th></tr> </thead> <tbody> <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> </tbody> </table>		B Constant (25-50°C)		Example	Nominal Value	3380	3380K	4250	4250K
Type																																																							
SDNT	Chip NTC Thermistor																																																						
External Dimensions (LxW) (mm)																																																							
0603 [0201]	0.6x0.3																																																						
1005 [0402]	1.0x0.5																																																						
1608 [0603]	1.6x0.8																																																						
2012 [0805]	2.0x1.25																																																						
Internal Code																																																							
X																																																							
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																																																						
<table border="1"> <thead> <tr><th colspan="2">Tolerance of B Constant</th></tr> </thead> <tbody> <tr><td>F</td><td>±1%</td></tr> <tr><td>H</td><td>±3%</td></tr> </tbody> </table>		Tolerance of B Constant		F	±1%	H	±3%	<table border="1"> <thead> <tr><th colspan="2">Packing</th></tr> </thead> <tbody> <tr><td>T</td><td>Tape & Reel</td></tr> </tbody> </table>		Packing		T	Tape & Reel	<table border="1"> <thead> <tr><th colspan="2">Hazardous Substance Free Products</th></tr> </thead> <tbody> <tr><td colspan="2">F</td></tr> </tbody> </table>		Hazardous Substance Free Products		F																																					
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) B	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 _{max}	t	C	P
SDNT0603C152□3500◎TF	1.5	3500	0.81	<3 sec.	1.0	100
SDNT0603C222□3500◎TF	2.2	3500	0.67			
SDNT0603C332□3500◎TF	3.3	3500	0.55			
SDNT0603C682□3380◎TF	6.8	3380	0.38			
SDNT0603C103□3900◎TF	10	3900	0.31			
SDNT0603C103□3380◎TF	10	3380	0.31			
SDNT0603C153□3380◎TF	15	3380	0.25			
SDNT0603C223□3380◎TF	22	3380	0.21			
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) B	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 _{max}	t	C	P
SDNT1005X472□3950◎TF	4.7	3950	0.46	<3 sec.	1.0	100
SDNT1005X682□3950◎TF	6.8	3950	0.38			
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	0.16			
SDNT1005X303□4050◎TF	30	4050	0.15			
SDNT1005X333□3950◎TF	33	3950	0.16			
SDNT1005X333□4050◎TF	33	4050	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	0.10			
SDNT1005X104□4250◎TF	100	4250	0.10			
SDNT1005X154□4150◎TF	150	4150	0.08			
SDNT1005X204□4250◎TF	200	4250	0.06			
SDNT1005X224□4250◎TF	220	4250	0.06			
SDNT1005X474□4000◎TF	470	4000	0.04			

SPECIFICATIONS

SDNT1608 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C) B	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 _{max}	t	C	P
SDNT1608X222□3450◎TF	2.2	3450	0.67	<5 sec.	1.0	100
SDNT1608X222□3950◎TF	2.2	3950	0.67			
SDNT1608X472□3500◎TF	4.7	3500	0.44			
SDNT1608X472□3950◎TF	4.7	3950	0.46			
SDNT1608X502□3950◎TF	5.0	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□4050◎TF	22	4050	0.21			
SDNT1608X303□4050◎TF	30	4050	0.17			
SDNT1608X333□4050◎TF	33	4050	0.17			
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	0.10			
SDNT1608X104□4250◎TF	100	4250	0.10			
SDNT1608X124□4250◎TF	120	4250	0.10			
SDNT1608X154□4300◎TF	150	4300	0.08			
SDNT1608X204□4350◎TF	200	4350	0.06			
SDNT1608X224□4350◎TF	220	4350	0.06			

SDNT2012 TYPE

Part Number	Resistance at 25°C	B Constant (25-50°C) B	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 _{max}	t	C	P
SDNT2012X332□3950◎TF	3.3	3950	0.72	<5 sec.	2.0	200
SDNT2012X472□3950◎TF	4.7	3950	0.65			
SDNT2012X502□3950◎TF	5.0	3950	0.60			
SDNT2012X682□3950◎TF	6.8	3950	0.50			
SDNT2012X103□3380◎TF	10	3380	0.40			
SDNT2012X103□3450◎TF	10	3450	0.40			
SDNT2012X103□3950◎TF	10	3950	0.44			
SDNT2012X223□4050◎TF	22	4050	0.31			
SDNT2012X303□4050◎TF	30	4050	0.24			
SDNT2012X333□4050◎TF	33	4050	0.24			
SDNT2012X473□4150◎TF	47	4150	0.20			
SDNT2012X503□4150◎TF	50	4150	0.18			
SDNT2012X683□4150◎TF	68	4150	0.16			
SDNT2012X104□3950◎TF	100	3950	0.14			
SDNT2012X104□4250◎TF	100	4250	0.14			

SPECIFICATIONS

SDNT2012 TYPE

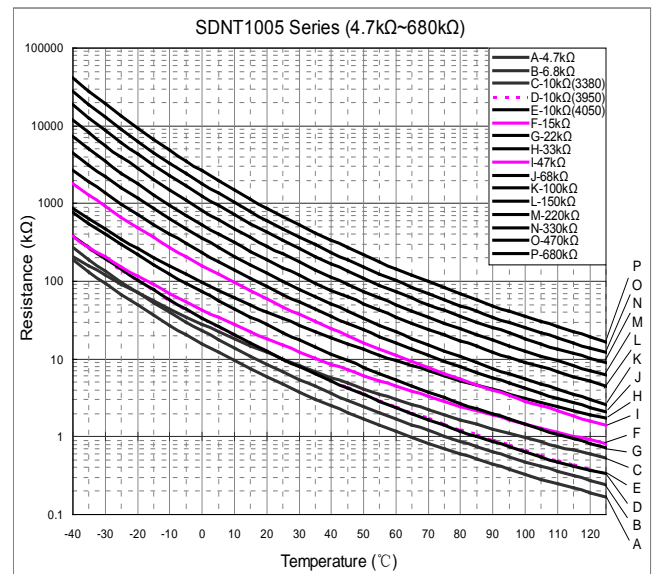
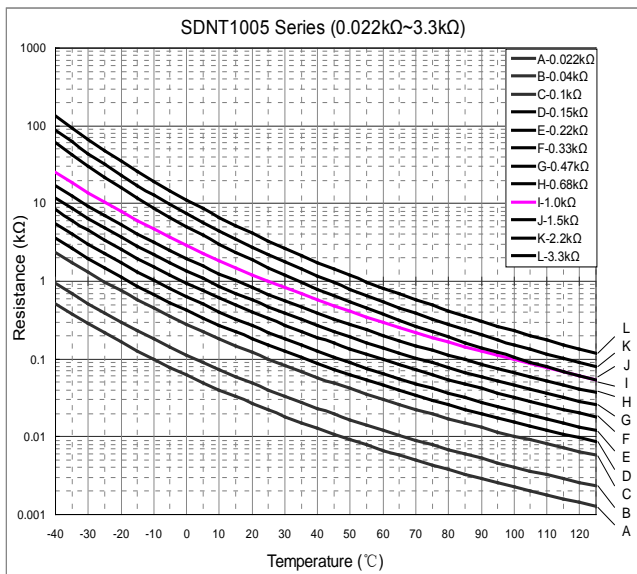
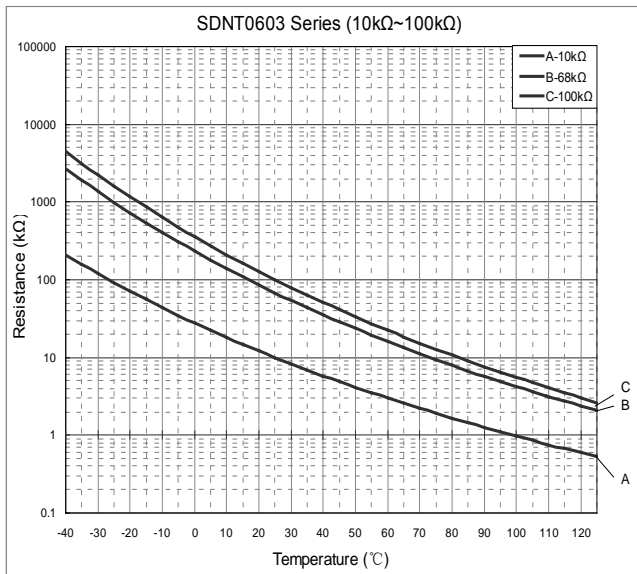
Part Number	Resistance at 25°C	B Constant (25-50°C) B	Max. Permissible Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I _{max}	t	C	P
SDNT2012X124□4250◎TF	120	4250	0.14	<5 sec.	2.0	200
SDNT2012X154□4300◎TF	150	4300	0.11			
SDNT2012X204□4350◎TF	200	4350	0.08			
SDNT2012X224□4350◎TF	220	4350	0.08			
SDNT2012X474□4000◎TF	470	4000	0.05			

※□: 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



TYPICAL ELECTRICAL CHARACTERISTICS

