

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

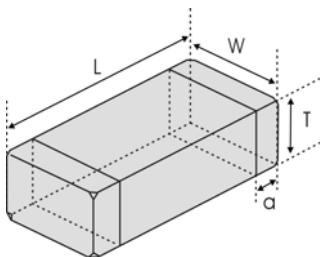
- Telecommunication equipments such as cellular phone, automobile phone, cordless phone, etc.
- Office automation such as printer, facsimile, word processor, etc.
- Consumer electronics such as VCR, DVD, CD players, etc.

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 (L×W) (mm)</th></tr> </thead> <tbody> <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> </tbody> </table>			External Dimensions (L×W) (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"> <thead> <tr><th colspan="2">Internal Code</th></tr> </thead> <tbody> <tr> <td colspan="2">X</td> </tr> </tbody> </table>				Internal Code		X									
Type																																		
SDNT	Chip NTC Thermistor																																	
External Dimensions (L×W) (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																																		
<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
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
SDNT0603X103□3380◎TF	10	3380	0.31	<3 sec.	1.0	100
SDNT0603X223□3380◎TF	22	3380	0.22			
SDNT0603X223□3900◎TF	22	3900	0.22			
SDNT0603X473□3950◎TF	47	3950	0.12			
SDNT0603X473□4100◎TF	47	4100	0.12			
SDNT0603X683□4150◎TF	68	4150	0.11			
SDNT0603X683□4250◎TF	68	4250	0.11			
SDNT0603X104□4150◎TF	100	4150	0.10			
SDNT0603X104□4250◎TF	100	4250	0.10			
SDNT0603X224□4250◎TF	220	4250	0.06			

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
SDNT1005X102□3450◎TF	1.0	3450	1.00	<3 sec.	1.0	100
SDNT1005X222□3450◎TF	2.2	3450	0.67			
SDNT1005X222□3950◎TF	2.2	3950	0.67			
SDNT1005X332□3450◎TF	3.3	3450	0.55			
SDNT1005X332□3950◎TF	3.3	3950	0.55			
SDNT1005X472□3500◎TF	4.7	3500	0.46			
SDNT1005X472□3950◎TF	4.7	3950	0.46			
SDNT1005X682□3500◎TF	6.8	3500	0.38			
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			
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			
SDNT1005X683□4250◎TF	68	4250	0.11			
SDNT1005X104□4150◎TF	100	4150	0.10			
SDNT1005X104□4250◎TF	100	4250	0.10			
SDNT1005X104□4360◎TF	100	4360	0.10			
SDNT1005X154□4150◎TF	150	4150	0.08			
SDNT1005X224□4250◎TF	220	4250	0.06			
SDNT1005X334□3950◎TF	330	3950	0.05			
SDNT1005X334□4300◎TF	330	4300	0.05			
SDNT1005X474□4000◎TF	470	4000	0.04			

Sunlord

Specifications subject to change without notice. Please check our website for latest information. Revised 2016/04/15

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 Tel: 0086-755-29832660 Fax: 0086-755-82269029 E-Mail: sunlord@sunlordinc.com

SPECIFICATIONS

SDNT1005 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
SDNT1005X474□4500◎TF	470	4500	0.04	<3 sec.	1.0	100
SDNT1005X684□4100◎TF	680	4100	0.03			
SDNT1005X684□4500◎TF	680	4500	0.03			

SDNT1608 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
SDNT1608X102□3450◎TF	1.0	3450	1.00	<5 sec.	1.0	100
SDNT1608X222□3450◎TF	2.2	3450	0.67			
SDNT1608X222□3950◎TF	2.2	3950	0.67			
SDNT1608X302□3450◎TF	3.0	3450	0.55			
SDNT1608X302□3950◎TF	3.0	3950	0.55			
SDNT1608X332□3450◎TF	3.3	3450	0.53			
SDNT1608X332□3950◎TF	3.3	3950	0.55			
SDNT1608X472□3500◎TF	4.7	3500	0.44			
SDNT1608X472□3950◎TF	4.7	3950	0.46			
SDNT1608X502□3500◎TF	5.0	3500	0.44			
SDNT1608X502□3950◎TF	5.0	3950	0.44			
SDNT1608X682□3500◎TF	6.8	3500	0.38			
SDNT1608X682□3950◎TF	6.8	3950	0.38			
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			
SDNT1608X333□4050◎TF	33	4050	0.17			
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□4250◎TF	100	4250	0.10			
SDNT1608X154□4250◎TF	150	4250	0.08			
SDNT1608X224□4300◎TF	220	4300	0.06			
SDNT1608X334□3950◎TF	330	3950	0.05			
SDNT1608X334□4300◎TF	330	4300	0.05			
SDNT1608X474□4000◎TF	470	4000	0.04			
SDNT1608X474□4500◎TF	470	4500	0.04			
SDNT1608X684□4100◎TF	680	4100	0.03			
SDNT1608X684□4500◎TF	680	4500	0.03			
SDNT1608X135□4700◎TF	1300	4700	0.02			

SPECIFICATIONS

SDNT2012 TYPE

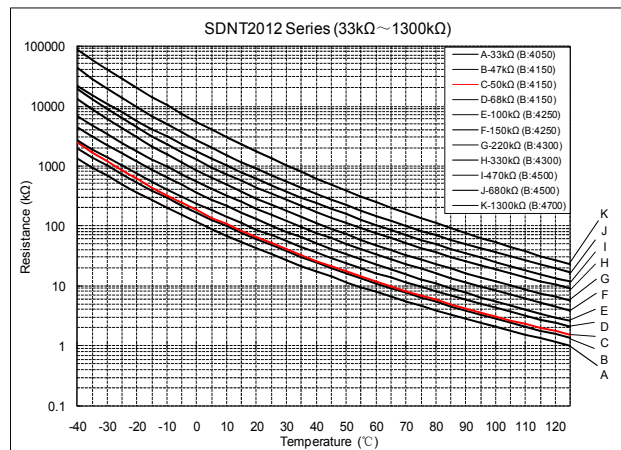
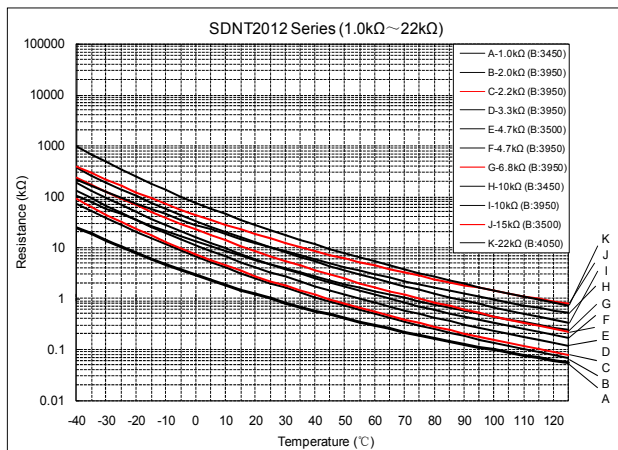
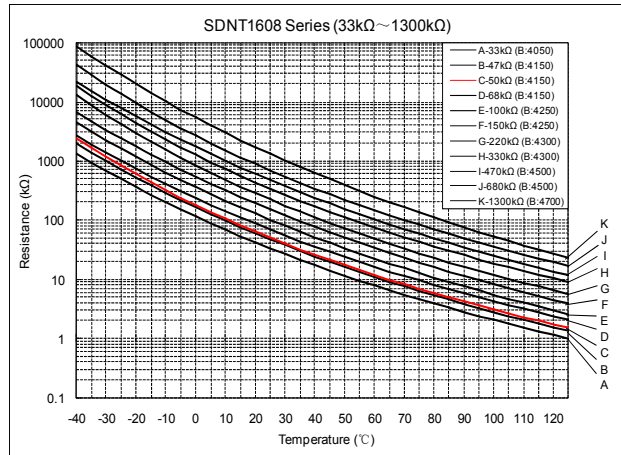
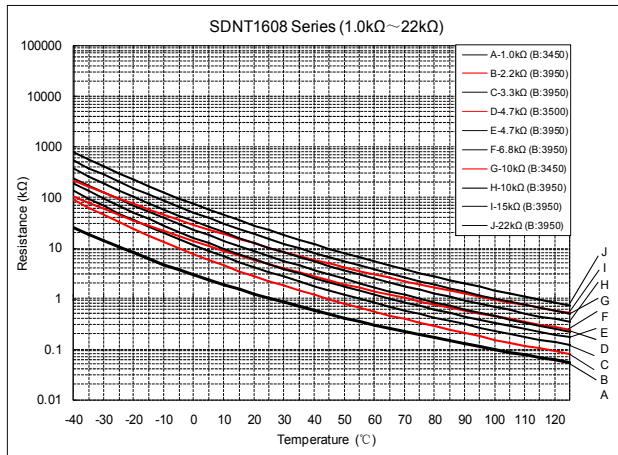
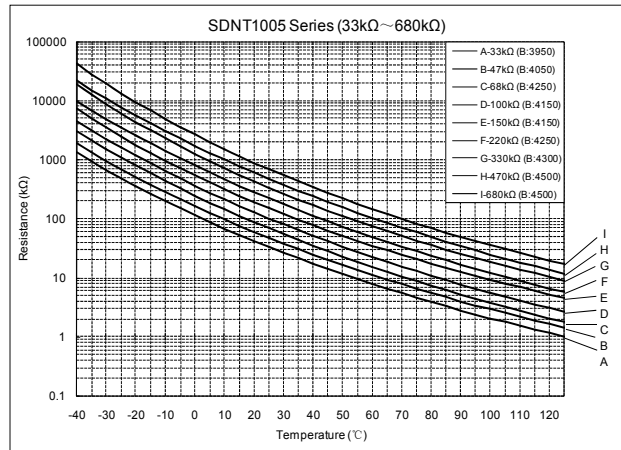
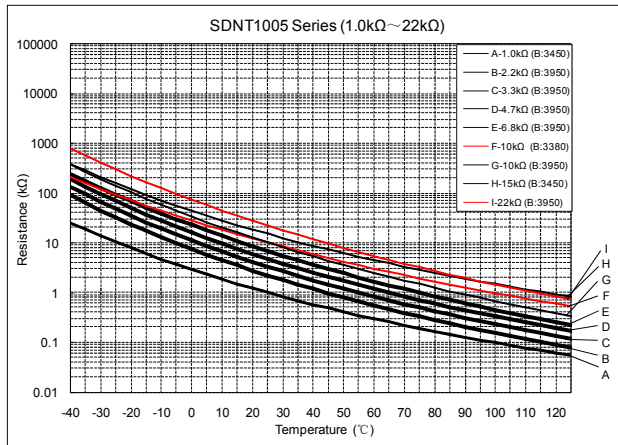
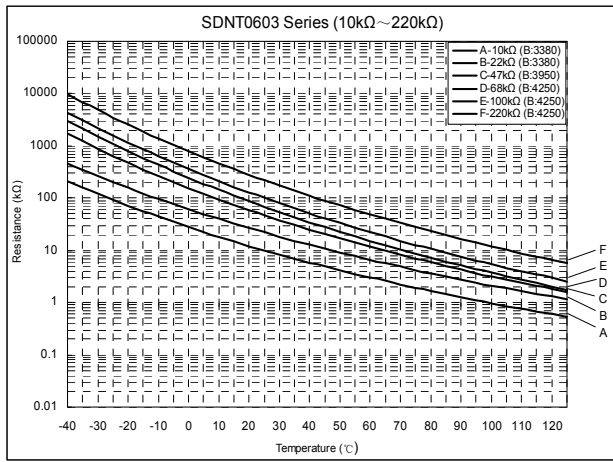
Part Number	Resistance at 25°C	B Constant (25-50°C) B	Max. Permissible Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I _{max}	t	C	P
SDNT2012X102□3450◎TF	1.0	3450	1.40	<5 sec.	2.0	200
SDNT2012X202□3450◎TF	2.0	3450	1.00			
SDNT2012X202□3950◎TF	2.0	3950	1.00			
SDNT2012X222□3450◎TF	2.2	3450	0.90			
SDNT2012X222□3950◎TF	2.2	3950	0.90			
SDNT2012X332□3450◎TF	3.3	3450	0.72			
SDNT2012X332□3950◎TF	3.3	3950	0.72			
SDNT2012X472□3500◎TF	4.7	3500	0.65			
SDNT2012X472□3950◎TF	4.7	3950	0.65			
SDNT2012X502□3500◎TF	5.0	3500	0.60			
SDNT2012X502□3950◎TF	5.0	3950	0.60			
SDNT2012X682□3500◎TF	6.8	3500	0.50			
SDNT2012X682□3950◎TF	6.8	3950	0.50			
SDNT2012X103□3450◎TF	10	3450	0.40			
SDNT2012X103□3950◎TF	10	3950	0.44			
SDNT2012X153□3500◎TF	15	3500	0.32			
SDNT2012X223□4050◎TF	22	4050	0.31			
SDNT2012X333□4050◎TF	33	4050	0.24			
SDNT2012X473□4050◎TF	47	4050	0.20			
SDNT2012X473□4150◎TF	47	4150	0.20			
SDNT2012X503□4150◎TF	50	4150	0.18			
SDNT2012X683□4150◎TF	68	4150	0.16			
SDNT2012X104□4250◎TF	100	4250	0.14			
SDNT2012X154□4250◎TF	150	4250	0.11			
SDNT2012X224□4300◎TF	220	4300	0.08			
SDNT2012X334□3950◎TF	330	3950	0.06			
SDNT2012X334□4300◎TF	330	4300	0.06			
SDNT2012X474□4000◎TF	470	4000	0.05			
SDNT2012X474□4500◎TF	470	4500	0.05			
SDNT2012X684□4100◎TF	680	4100	0.04			
SDNT2012X684□4500◎TF	680	4500	0.04			
SDNT2012X135□4700◎TF	1300	4700	0.03			

※□: 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



Specifications subject to change without notice. Please check our website for latest information. Revised 2016/04/15