

# 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

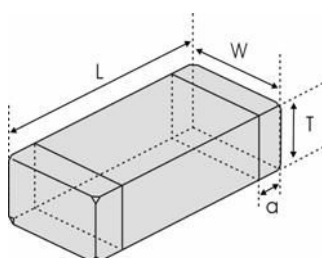
SDNT      1005      X      103      F      3380      F      T      F

①            ②            ③            ④            ⑤            ⑥            ⑦            ⑧            ⑨

① Type		② External Dimensions (L×W) (mm)		③ Internal Code	
SDNT	Chip NTC Thermistor	0603 [0201]	0.6×0.3	X	
		1005 [0402]	1.0×0.5		
		1608 [0603]	1.6×0.8		
		2012 [0805]	2.0×1.25		
④ Zero-power Resistance		⑤ Tolerance of Resistance		⑥ B Constant (25-50°C)	
Example	Nominal Value	F	±1%	Example	Nominal Value
101	0.1kΩ	H	±3%	3380	3380K
103	10kΩ	J	±5%	4250	4250K
		K	±10%		
⑦ Tolerance of B Constant		⑧ Packing		⑨ Hazardous Substance Free Products	
F	±1%	T	Tape & Reel	F	
H	±3%				

## 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
SDNT0603X103□3380◎TF	10	3380	0.31	<3sec	1.0	100
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			

### 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
SDNT1005X102□3450◎TF	1.0	3450	1.0	<3sec	1.0	100
SDNT1005X152□3950◎TF	1.5	3950	0.81			
SDNT1005X222□3950◎TF	2.2	3950	0.67			
SDNT1005X332□3950◎TF	3.3	3950	0.55			
SDNT1005X472□3500◎TF	4.7	3500	0.44			
SDNT1005X472□3950◎TF	4.7	3950	0.46			
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	0.16			
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			
SDNT1005X683□4250◎TF	68	4250	0.11			
SDNT1005X104□4150◎TF	100	4150	0.10			
SDNT1005X104□4250◎TF	100	4250	0.10			
SDNT1005X154□4150◎TF	150	4150	0.08			
SDNT1005X224□4250◎TF	220	4250	0.06			
SDNT1005X334□4300◎TF	330	4300	0.05			
SDNT1005X474□4350◎TF	470	4350	0.04			
SDNT1005X684□4400◎TF	680	4400	0.03			

## SPECIFICATIONS

### 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
SDNT1608X102□3450◎TF	1.0	3450	1.0	<5sec	1.0	100
SDNT1608X152□3450◎TF	1.5	3450	0.81			
SDNT1608X222□3950◎TF	2.2	3950	0.67			
SDNT1608X302□3950◎TF	3.0	3950	0.55			
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□3950◎TF	5.0	3950	0.44			
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□4300◎TF	150	4300	0.08			
SDNT1608X224□4350◎TF	220	4350	0.06			
SDNT1608X334□4400◎TF	330	4400	0.05			
SDNT1608X474□4500◎TF	470	4500	0.04			
SDNT1608X684□4500◎TF	680	4500	0.03			
SDNT1608X135□4700◎TF	1300	4700	0.02			

# SPECIFICATIONS

## SDNT2012 TYPE

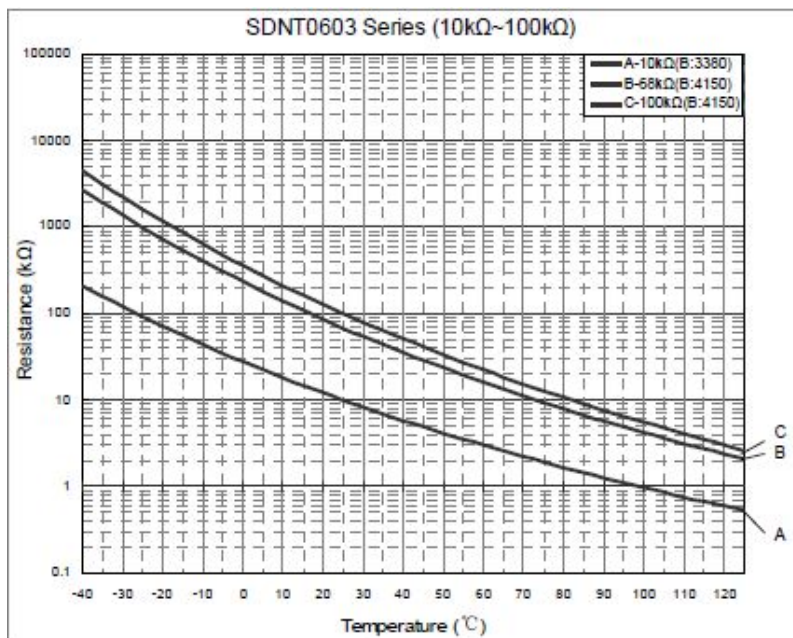
Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissible Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	t	C	P
SDNT2012X102□3450◎TF	1.0	3450	1.4	<5sec	2.0	200
SDNT2012X152□3950◎TF	1.5	3950	1.2			
SDNT2012X202□3950◎TF	2.0	3950	1.0			
SDNT2012X222□3950◎TF	2.2	3950	0.90			
SDNT2012X332□3950◎TF	3.3	3950	0.72			
SDNT2012X472□3500◎TF	4.7	3500	0.63			
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□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□4300◎TF	150	4300	0.11			
SDNT2012X224□4350◎TF	220	4350	0.08			
SDNT2012X334□4400◎TF	330	4400	0.06			
SDNT2012X474□4500◎TF	470	4500	0.05			
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



# TYPICAL ELECTRICAL CHARACTERISTICS

