# 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**

SDNT

(4)

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

<u>X</u>

Battery, CPU temperature protection.

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1	
	Туре
SDNT	Chip NTC Thermistor

2				
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			

3380

3		
	Internal Code	
	X	
	С	

Zero-power Resistance			
Example	Nominal Value		
472	4.7kΩ		
103	10kΩ		

Tolerance of B Constant			
F	±1%		
Н	±3%		

Tolerance of Resistance			
F ±1%			
Н	±3%		
J	±5%		
K	±10%		

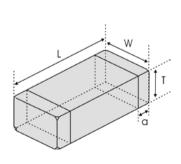
8	
	Packing
Т	Tape & Reel

B Constant (25-50°C)				
Example Nominal Value				
3380	3380K			
4250	4250K			
9				

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	Hazardous Substance
	Free Products
	F

# **SHAPE AND DIMENSIONS**

Unit: mm [inch]



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

# **SPECIFICATIONS**

# SDNT0603 TYPE

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

#### SDNT1005 TYPE

Part Number	Resistance at 25℃	B Constant (25-50°C)	Max. Permissive Operating Current (25℃)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/℃	mW
Symbol	R25	B25/50	Imax	t	С	Р
SDNT1005X682□3950©TF	6.8	3950	0.38		1.0	100
SDNT1005X103□3380©TF	10	3380	0.31			
SDNT1005X103□3950©TF	10	3950	0.33			
SDNT1005X103□4050©TF	10	4050	0.33	<3 sec.		
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℃)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/℃	mW
Symbol	R25	B25/50	Imax	t	С	Р
SDNT1608X222□3450©TF	2.2	3450	0.67			
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	<5 sec.	1.0	100
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℃	B Constant (25-50°C)	Max. Permissive Operating Current (25℃)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/℃	mW
Symbol	R25	B25/50	Imax	t	С	Р
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. Permissive Operating Current (25℃)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/℃	mW
Symbol	R25	B25/50	Imax	t	С	Р
SDNT2012X472□3950©TF	4.7	3950	0.65			
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	<5 sec.	2.0	200
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			

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

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

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

# TYPICAL ELECTRICAL CHARACTERISTICS

