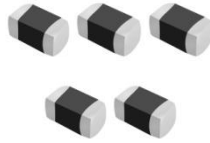


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# High Precision & Small Size Chip NTC Thermistor— SDNT0603C Series



## Summary

This is an upgrade of the original NTC thermistor SDNT0603 series. The resistance value (25°C) of the SDNT0603C series from 1kΩ to 220kΩ, and the B value (25°C/50°C) from 3380K to 4700K. High accuracy (1%); With NTC thermistors precision and miniaturization further, The products with internal electrodes (SDNT0603C series) can better meet require of high precision for temperature control, detection and compensation in Various electronic devices.

## Background

With the improvement of product performance, the requirements for the accuracy of temperature measurement, control and temperature compensation to be promoted, The use environment is also more severe, which brings great challenges to the design of NTC thermistors. In order to improve the accuracy and stability of the thermistor, The internal electrodes structure be used to achieve high accuracy (1%) and high stability of the product by our. We have developed the SDNT0603C series. At the same time, a wider range of resistance values (1kΩ ~ 220kΩ) and B values (3380K ~ 4700K) can be selected to meet the requirements of various lines.

## Features

- Internal electrode structure (There are several electrodes in product to adjustable resistance)
- High accuracy Mobile phone (battery, crystal oscillator, camera, etc.)
- High stability

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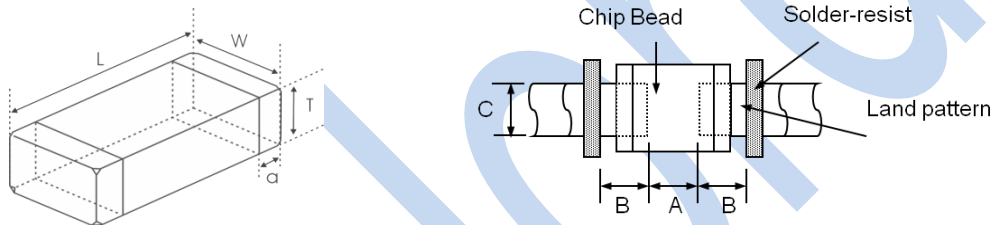
## Application

- Mobile phone (battery, crystal oscillator, camera, etc.)
- Computer (CPU, etc.)
- LED lighting



## Dimensions And Pads

SDNT0603C Series



Unit: mm

Type	L	W	T	a	A	B	C
0603 [0201]	0.6±0.05 [0.024±0.002]	0.3±0.05 [0.012±0.002]	0.3±0.05 [0.012±0.002]	0.15±0.05 [0.006±0.002]	0.20~0.30	0.20~0.30	0.30~0.35

## Part Number

SDNT 0603 C 104 F 4250 F I F  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①

Type	
SDNT	Chip NTC Thermistor

②

External Dimensions (L×W) (mm)	
0603 [0201]	0.6×0.3

③

Internal Code
C

④

Zero-power Resistance(Ω)	
Example	Nominal Value
103	10kΩ
104	100kΩ

⑤

Tolerance of Resistance	
F	±1%
H	±3%
J	±5%

⑥

B Constant(25-50℃)	
Example	Nominal Value
3380	3380K
4050	4050K
4250	4250K

⑦

Tolerance of B Constant	
F	±1%
H	±3%

⑧

Packing	
T	编带

⑨

HSF Products	
F	

# Electrical Characteristics

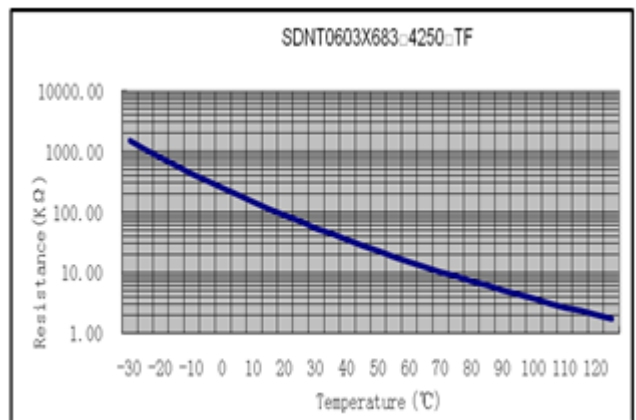
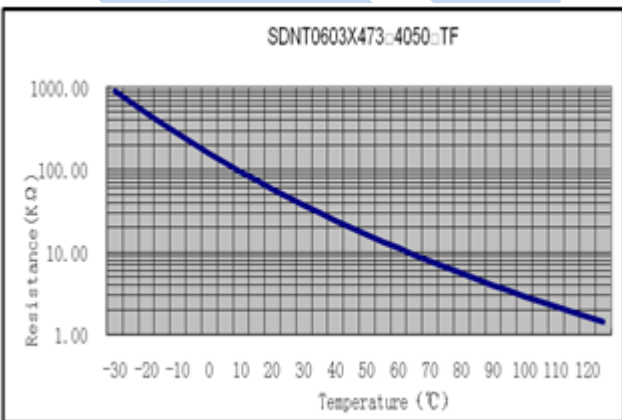
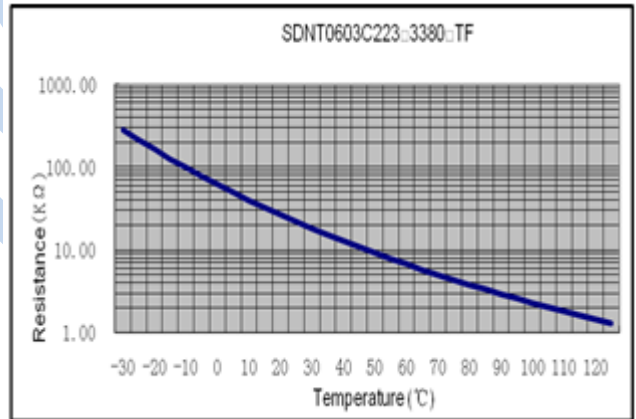
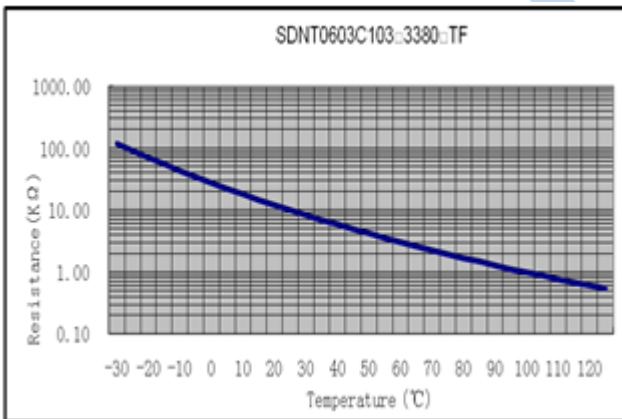
## SDNT0603C TYPE

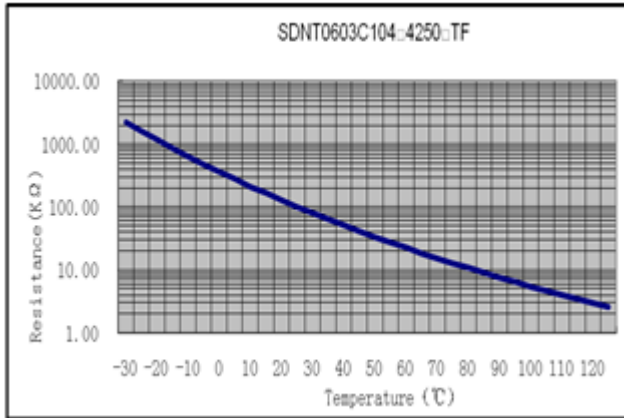
Part Number	Resistance at 25°C R25 (kΩ)	B constant (25-50°C) (K)	Max. Permissible Operating Current (25°C) (mA)	Thermal Time Constant	Dissipation Factor (mW/°C)	Rated Electric Power (mW)
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I <sub>max</sub>	T	°C	P
SDNT0603C103□3380□TF	10	3380	0.31	<3sec	1.0	100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

The resistance tolerance:  $\pm 1\%$ ,  $\pm 3\%$ ,  $\pm 5\%$ ,  $\pm 10\%$ .

The B value tolerance:  $\pm 1\%$ ,  $\pm 3\%$ .

## R-T 曲线





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