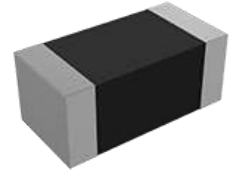




Thermistor

热敏电阻

SMD Series



Chip Temp. Sensing NTC Thermistor – SDNT Series

Operating Temp. : -40°C ~ +125°C

FEATURES

- SMD type suitable for high density mounting
- Series of B constant for various applications
- Excellent solder ability

APPLICATIONS

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

PRODUCT IDENTIFICATION

SDNT

①

①

Type	
SDNT	Chip NTC Thermistor

1005

②

X

③

②

External Dimensions (LxW) (mm)	
0603 [0201]	0.6x0.3
1005 [0402]	1.0x0.5
1608 [0603]	1.6x0.8
2012 [0805]	2.0x1.25

103

④

④

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

F

⑤

⑤

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

3380

⑥

③

Internal Code	
X	
C	

F

⑦

⑦

Tolerance of B Constant	
F	±1%
H	±3%

T

⑧

⑧

Packing	
T	Tape & Reel

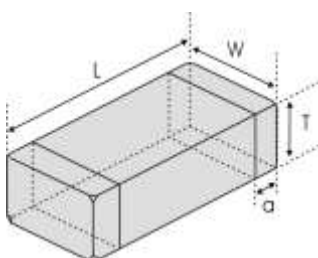
⑥

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

⑨

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)	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
SDNT0603C103□3380◎TF	10	3380	0.31	<3 sec.	1.0	100
SDNT0603C223□3380◎TF	22	3380	0.21			
SDNT0603C473□4050◎TF	47	4050	0.14			
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)	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
SDNT1005X682□3950◎TF	6.8	3950	0.38	<3 sec.	1.0	100
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	0.15			
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□3950◎TF	100	3950	0.1			
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°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
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			
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°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 _{max}	t	C	P
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°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
SDNT2012X472□3950◎TF	4.7	3950	0.65	<5 sec.	2.0	200
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			
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			

※□: 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

