

Chip Temp. Sensing NTC Thermistor – NTC Series

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

NTC

①

1005

②

X

③

103

④

F

⑤

3380

⑥

F

⑦

T

⑧

F

⑨

①

Type	
NTC	Chip NTC Thermistor

②

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

③

Internal Code
X

④

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

⑤

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

⑥

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

⑦

Tolerance of B Constant	
F	±1%
H	±3%

⑧

Packing	
T	Tape & Reel

⑨

Hazardous Substance Free Products
F

NTC0603 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
NTC0603C152□3500◎TF	1.5	3500	0.81	<3 sec.	1.0	100
NTC0603C222□3500◎TF	2.2	3500	0.67			
NTC0603C332□3500◎TF	3.3	3500	0.55			
NTC0603C682□3380◎TF	6.8	3380	0.38			
NTC0603C103□3900◎TF	10	3900	0.31			
NTC0603C103□3380◎TF	10	3380	0.31			
NTC0603C153□3380◎TF	15	3380	0.25			
NTC0603C223□3380◎TF	22	3380	0.21			
NTC0603C683□4250◎TF	68	4250	0.12			
NTC0603C104□4250◎TF	100	4250	0.10			

NTC1005 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
NTC1005X472□3950◎TF	4.7	3950	0.46	<3 sec.	1.0	100
NTC1005X682□3950◎TF	6.8	3950	0.38			
NTC1005X103□3380◎TF	10	3380	0.31			
NTC1005X103□3950◎TF	10	3950	0.33			
NTC1005X103□4050◎TF	10	4050	0.33			
NTC1005X153□3450◎TF	15	3450	0.25			
NTC1005X223□3950◎TF	22	3950	0.23			
NTC1005X303□3950◎TF	30	3950	0.16			
NTC1005X303□4050◎TF	30	4050	0.15			
NTC1005X333□3950◎TF	33	3950	0.16			
NTC1005X333□4050◎TF	33	4050	0.15			
NTC1005X473□4050◎TF	47	4050	0.12			
NTC1005X473□4100◎TF	47	4100	0.12			
NTC1005X503□4100◎TF	50	4100	0.12			
NTC1005X683□4150◎TF	68	4150	0.11			
NTC1005X104□4150◎TF	100	4150	0.10			
NTC1005X104□4250◎TF	100	4250	0.10			
NTC1005X154□4150◎TF	150	4150	0.08			
NTC1005X204□4250◎TF	200	4250	0.06			
NTC1005X224□4250◎TF	220	4250	0.06			
NTC1005X474□4000◎TF	470	4000	0.04			

NTC1608 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
NTC1608X222□3450◎TF	2.2	3450	0.67	<5 sec.	1.0	100
NTC1608X222□3950◎TF	2.2	3950	0.67			
NTC1608X472□3500◎TF	4.7	3500	0.44			
NTC1608X472□3950◎TF	4.7	3950	0.46			
NTC1608X502□3950◎TF	5.0	3950	0.44			
NTC1608X103□3380◎TF	10	3380	0.31			
NTC1608X103□3450◎TF	10	3450	0.31			
NTC1608X103□3950◎TF	10	3950	0.33			
NTC1608X153□3950◎TF	15	3950	0.25			
NTC1608X223□4050◎TF	22	4050	0.21			
NTC1608X303□4050◎TF	30	4050	0.17			
NTC1608X333□4050◎TF	33	4050	0.17			
NTC1608X473□4150◎TF	47	4150	0.14			
NTC1608X503□4150◎TF	50	4150	0.13			
NTC1608X683□4150◎TF	68	4150	0.12			
NTC1608X104□3950◎TF	100	3950	0.10			
NTC1608X104□4250◎TF	100	4250	0.10			
NTC1608X124□4250◎TF	120	4250	0.10			
NTC1608X154□4300◎TF	150	4300	0.08			
NTC1608X204□4350◎TF	200	4350	0.06			
NTC1608X224□4350◎TF	220	4350	0.06			

NTC2012 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
NTC2012X332□3950◎TF	3.3	3950	0.72	<5 sec.	2.0	200
NTC2012X472□3950◎TF	4.7	3950	0.65			
NTC2012X502□3950◎TF	5.0	3950	0.60			
NTC2012X682□3950◎TF	6.8	3950	0.50			
NTC2012X103□3380◎TF	10	3380	0.40			
NTC2012X103□3450◎TF	10	3450	0.40			
NTC2012X103□3950◎TF	10	3950	0.44			
NTC2012X223□4050◎TF	22	4050	0.31			
NTC2012X303□4050◎TF	30	4050	0.24			
NTC2012X333□4050◎TF	33	4050	0.24			
NTC2012X473□4150◎TF	47	4150	0.20			
NTC2012X503□4150◎TF	50	4150	0.18			
NTC2012X683□4150◎TF	68	4150	0.16			
NTC2012X104□3950◎TF	100	3950	0.14			
NTC2012X104□4250◎TF	100	4250	0.14			

NTC2012 TYPE

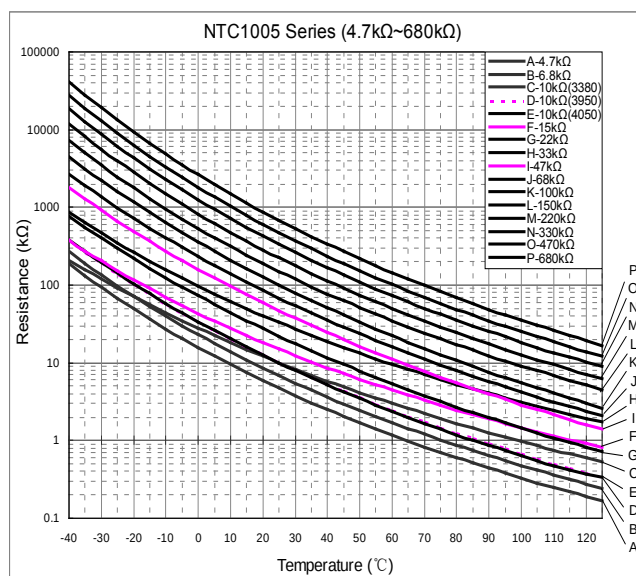
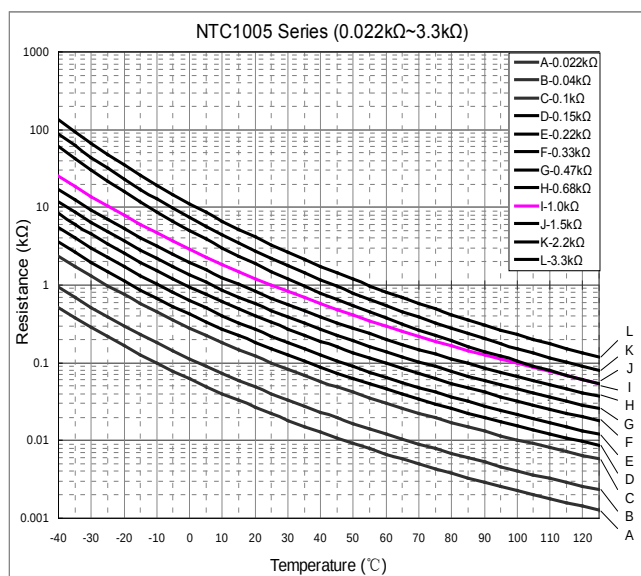
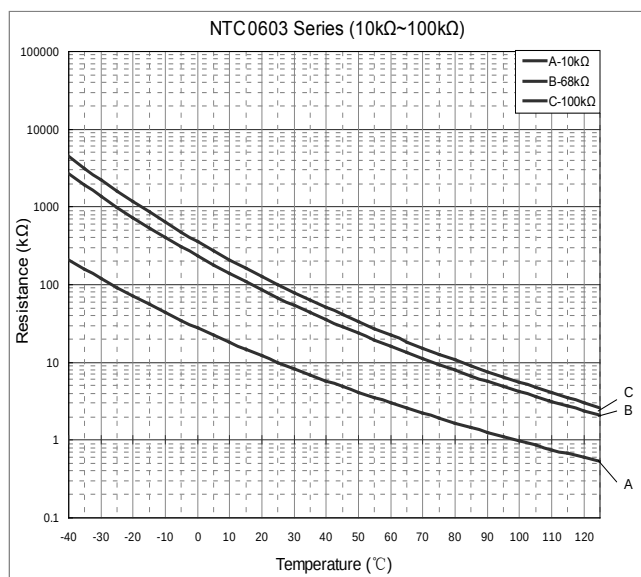
Part Number	Resistance at 25°C	B Constant (25-50°C)	Max. Permissive Operating Current (25°C)	Thermal Time Constant	Dissipation Factor	Rated Electric Power
Units	kΩ	K	mA	sec	mW/°C	mW
Symbol	R25	B25/50	I _{max}	t	C	P
NTC2012X124□4250◎TF	120	4250	0.14	<5 sec.	2.0	200
NTC2012X154□4300◎TF	150	4300	0.11			
NTC2012X204□4350◎TF	200	4350	0.08			
NTC2012X224□4350◎TF	220	4350	0.08			
NTC2012X474□4000◎TF	470	4000	0.05			

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

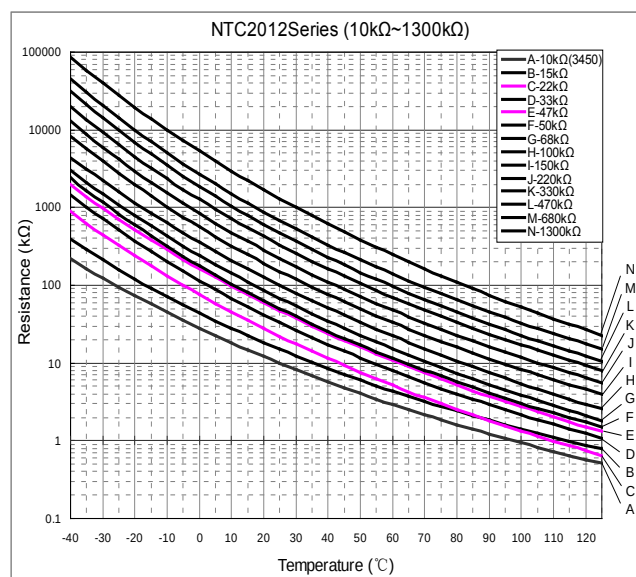
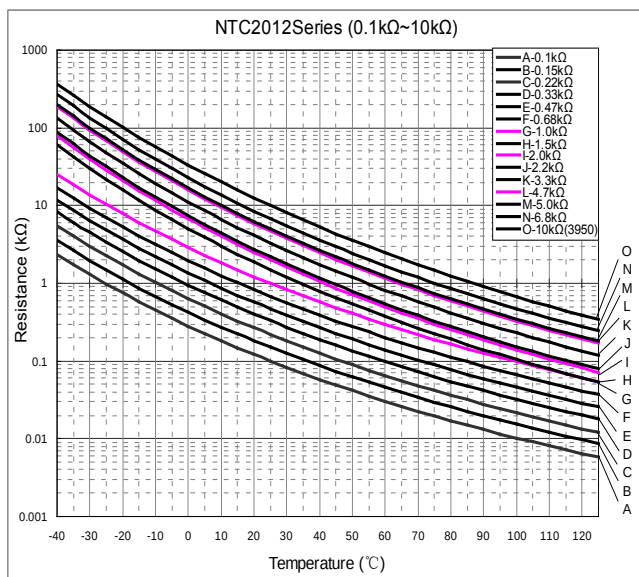
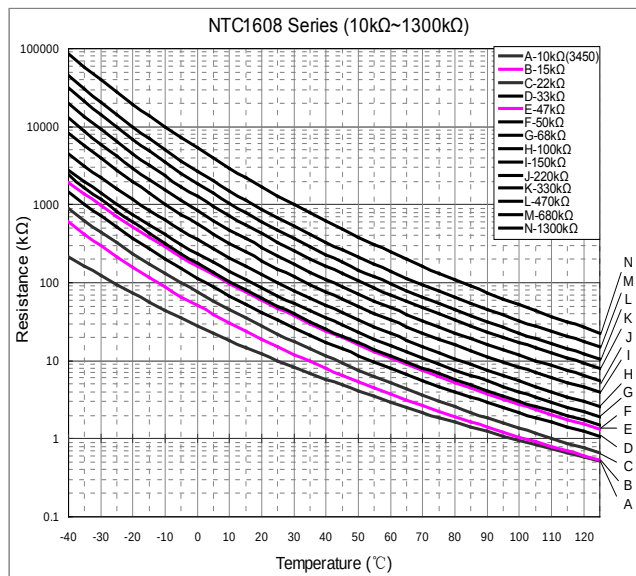
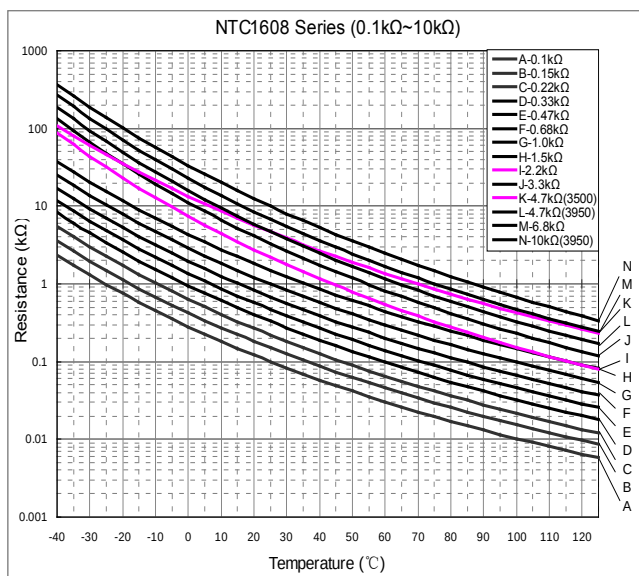
※◎: Please specify the B value tolerance code (F=±1%, H=±3%).

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

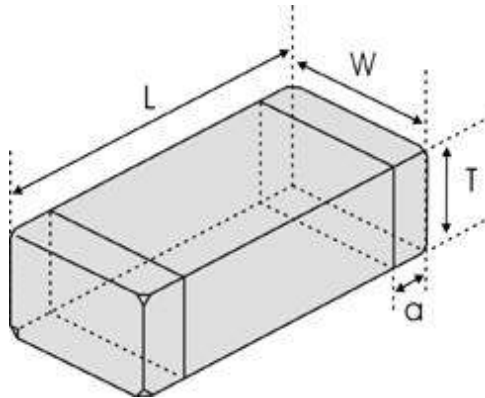
TYPICAL ELECTRICAL CHARACTERISTICS



TYPICAL ELECTRICAL CHARACTERISTICS



SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
NTC0603 [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]
NTC1005 [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]
NTC1608 [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]
NTC2012 [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]

NOTICE

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