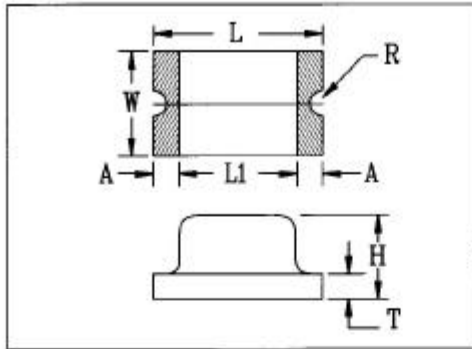
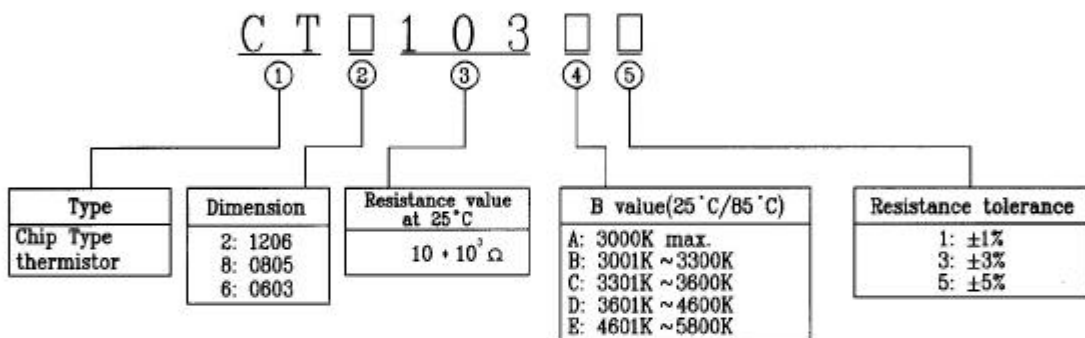


## Dimensional Outline (Unit:mm)



Dim. Type	L (±0.2)	W (±0.2)	L1	A	R	H (±0.2)	T (±0.06)
1206	3.2	1.6	2.0	0.6	0.25	1.1	0.5
0805	2.0	1.25	1.4	0.3	0.15	1.0	0.3
0603	1.6	0.8	1.0	0.3	0.15	0.8	0.3

## Indicates type number



## Characteristics

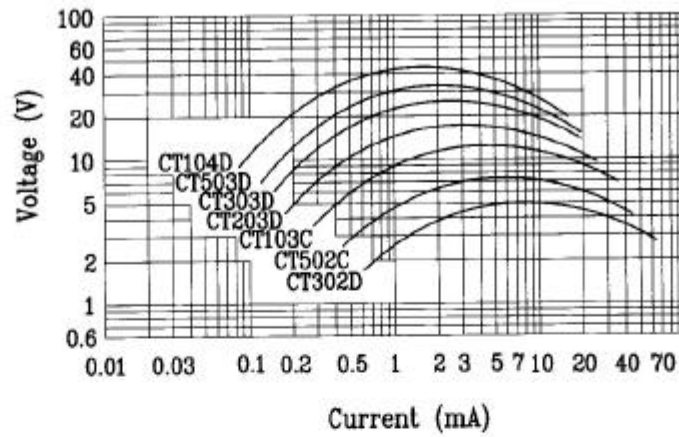
Part No	Zero Power Resistance at 25°C *1 R <sub>25</sub> (KΩ)	Tolerance of Resistance (±%)	B Constant 25/85 *2 (K)	Tolerance of B Constant (±%)	Thermal time constant *3 (sec.)	Thermal dissipation constant (mW/°C)	Operating temperature range (°C)
CT□302D□	3	1, 3, 5	3510	1, 2, 3	7	1	-40 ~ +100
CT□502C□	5	1, 3, 5	3324	1, 2, 3	7	1	-40 ~ +100
CT□103C□	10	1, 3, 5	3435	1, 2, 3	7	1	-40 ~ +100
CT□103D□	10	1, 3, 5	3950	1, 2, 3	7	1	-40 ~ +100
CT□203D□	20	1, 3, 5	3950	1, 2, 3	7	1	-40 ~ +100
CT□303D□	30	1, 3, 5	3950	1, 2, 3	7	1	-40 ~ +100
CT□473D□	47	1, 3, 5	3950	1, 2, 3	7	1	-40 ~ +100
CT□503D□	50	1, 3, 5	3965	1, 2, 3	7	1	-40 ~ +100
CT□104D□	100	1, 3, 5	4040	1, 2, 3	7	1	-40 ~ +100

\*1 R<sub>25</sub>: Nominal zero-power resistance value at 25°C.

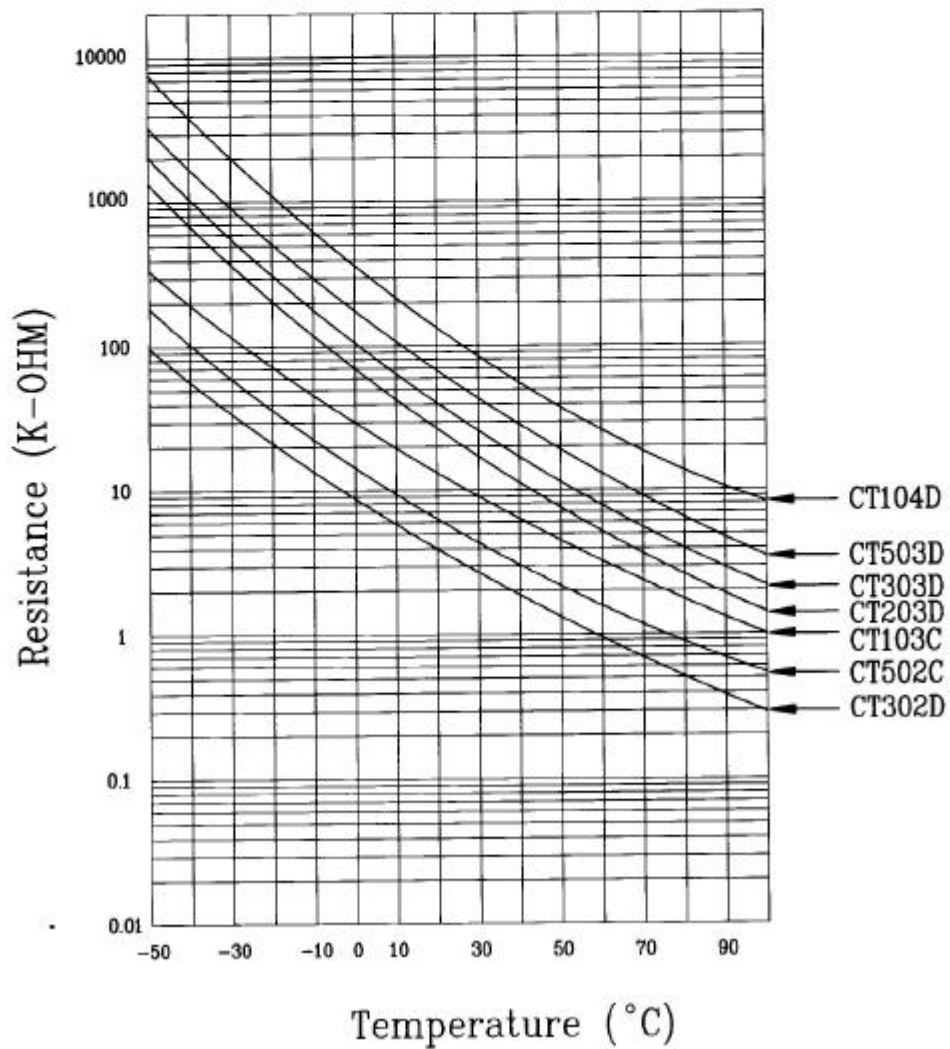
\*2 B value: determined by nominal zero-power resistance at 25°C and 85°C.

\*3 Time when thermistor reaches 63.2% of temperature difference. The value is measured in the air.

## V-1 Characteristic Curve



## NTC Resistance vs. Temperature



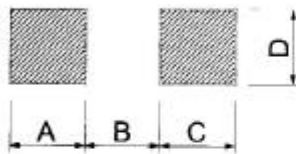
# Precautions for using NTC Surface Mount chip thermistors

## Soldering:

Manual of Soldering

The temperature of the iron should not be higher than 300°C(572°F) and soldering within 3 seconds per solder-land is to be observed.

Reflow Soldering



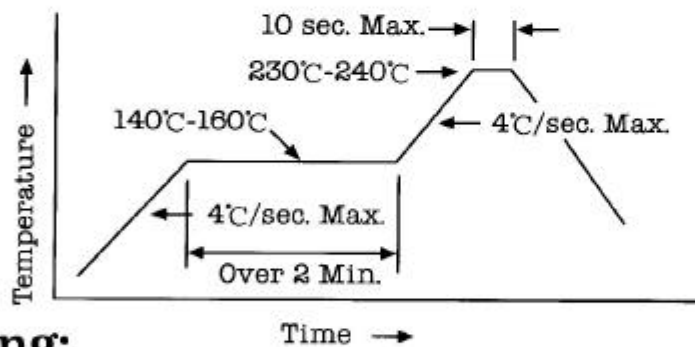
size	A	B	C	D
1206	1.5	2.0	1.5	1.5
0805	1.2	0.9	1.2	1.2
0603	0.8	0.7	0.8	0.8

Unit:mm

Preheating:140°C-160°C±5°C,within 2 minutes.

Operation heating:230°C-240°C,within 10 seconds.(Max.)

Gradual Cooling(Avoid quenching).



## Handling:

Care must be taken not to cause stress to the epoxy resin portion of SEN NTC chip thermistors while it is exposed to high temperature. Care must be taken not to rub the epoxy resin portion of SEN NTC chip thermistors with hard or sharp article such as the sand blast and the metal hook.

## Storage:

In order to avoid the absorption of moisture. It is recommended to solder SEN NTC chip thermistors as soon as possible after unpacking the sealed envelope. If the envelope is still packed, to store it in the environment as following:

Temperature : 5°C-30°C(41°F-86°F)

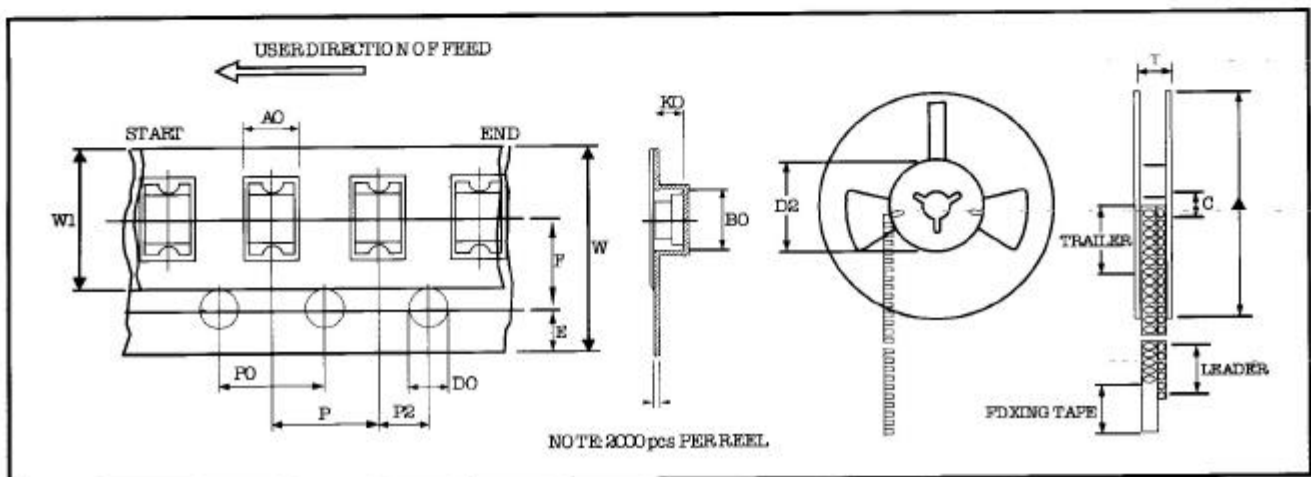
Humidity:RH 60% Max.

# TAPE AND REEL SURFACE MOUNT CHIP THERMISTORS

- Device Number: CT 1206 series
- Features:
  - Compatible with automatic placement equipment
  - Surface Mount assembly
  - High efficiency low power consumption
  - Long life sold state reliability

## Tapping and Packaging Specification

ITEM	SYMBOL	SPECIFICATION			
		Minimum		Maximum	
		mm	inch	mm	inch
Tape Feed Hole Diameter(DIA)	D <sub>0</sub>	1.40	0.055	1.60	0.063
Feed Hole Location	E	1.65	0.064	1.85	0.073
Centers Line Dimensions Length Direction	F	3.45	0.135	3.55	0.139
Compartment Depth	K <sub>0</sub>	1.30	0.051	1.50	0.059
Compartment Pitch	P	3.90	0.153	4.10	0.161
Sprocket Hole Diameter	F <sub>0</sub>	3.90	0.153	4.10	0.161
Centers Line Dimensions Length Direction	P <sub>2</sub>	1.95	0.076	2.05	0.080
Carrier Tape Thickness	t	*	*	0.30	0.012
Carrier Tape Width	W	7.70	0.303	8.30	0.326
Flange Diameter	A	178.0	7.008	180.0	7.087
Hub Spindle Hole	C	12.50	0.492	13.50	0.531
Hub Diameter	D <sub>1</sub>	70.00	2.755	72.00	2.830
Fixing Tape Width	W <sub>1</sub>	5.25	0.206	5.35	0.210
Flange Space Between Flanges	T	12.50	0.492	13.50	0.531
Compartment Length	A <sub>0</sub>	1.84	0.072	2.04	0.080
Compartment Width	B <sub>0</sub>	3.43	0.135	3.63	0.143



# TAPE AND REEL SURFACE MOUNT CHIP THERMISTORS

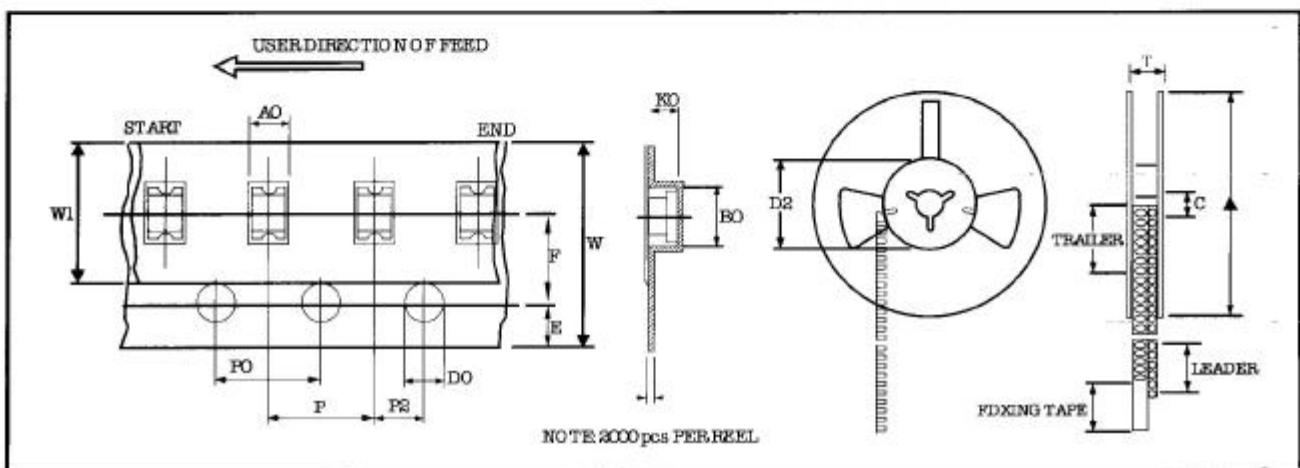
Device Number: CT 0805 series

Features: •Compatible with automatic placement equipment

- Surface Mount assembly
- High efficiency low power consumption
- Long life solid state reliability

## Tapping and Packaging Specification

ITEM	SYMBOL	SPECIFICATION			
		Minimum		Maximum	
Tape Feed Hole Diameter(DIA)	$D_0$	1.40	0.065	1.60	0.063
Feed Hole Location	E	1.65	0.064	1.85	0.073
Centers Line Dimensions Length Direction	F	3.45	0.135	3.55	0.139
Compartment Depth	$K_0$	1.20	0.047	1.35	0.063
Compartment Pitch	P	3.90	0.153	4.10	0.161
Sprocket Hole Diameter	$P_0$	3.90	0.153	4.10	0.161
Centers Line Dimensions Length Direction	$P_2$	1.95	0.076	2.05	0.080
Carrier Tape Thickness	t	*	*	0.30	0.012
Carrier Tape Width	W	7.70	0.303	8.30	0.326
Flange Diameter	A	178.0	7.008	180.0	7.087
Hub Spindle Hole	C	12.50	0.492	13.50	0.531
Hub Diameter	$D_2$	70.00	2.755	72.00	2.830
Fixing Tape Width	$W_1$	5.25	0.206	5.35	0.210
Flange Space Between Flanges	T	12.50	0.492	13.50	0.531
Compartment Length	$A_0$	1.40	0.065	1.50	0.069
Compartment Width	$B_0$	2.10	0.083	2.20	0.087



# TAPE AND REEL SURFACE MOUNT CHIP THERMISTORS

Device Number: CT 0603 series

- Features:
- Compatible with automatic placement equipment
  - Surface Mount assembly
  - High efficiency low power consumption
  - Long life solid state reliability

## Tapping and Packaging Specification

ITEM	SYMBOL	SPECIFICATION			
		Minimum		Maximum	
		mm	inch	mm	inch
Tape Feed Hole Diameter(DIA)	$D_0$	1.40	0.055	1.60	0.063
Feed Hole Location	E	1.65	0.064	1.85	0.073
Centers Line Dimensions Length Direction	F	3.45	0.135	3.55	0.139
Compartment Depth	$K_0$	0.95	0.037	1.07	0.042
Compartment Pitch	P	3.90	0.153	4.10	0.161
Sprocket Hole Diameter	$P_0$	3.90	0.153	4.10	0.161
Centers Line Dimensions Length Direction	$P_2$	1.95	0.076	2.05	0.080
Carrier Tape Thickness	t	*	*	0.30	0.012
Carrier Tape Width	W	7.70	0.303	8.30	0.326
Flange Diameter	A	178.0	7.008	180.0	7.087
Hub Spindle Hole	C	12.50	0.492	13.50	0.531
Hub Diameter	$D_2$	70.00	2.755	72.00	2.830
Fixing Tape Width	$W_1$	5.25	0.206	5.35	0.210
Flange Space Between Flanges	T	12.50	0.492	13.50	0.531
Compartment Length	$A_0$	0.95	0.037	1.07	0.042
Compartment Width	$B_0$	1.75	0.068	1.90	0.074

