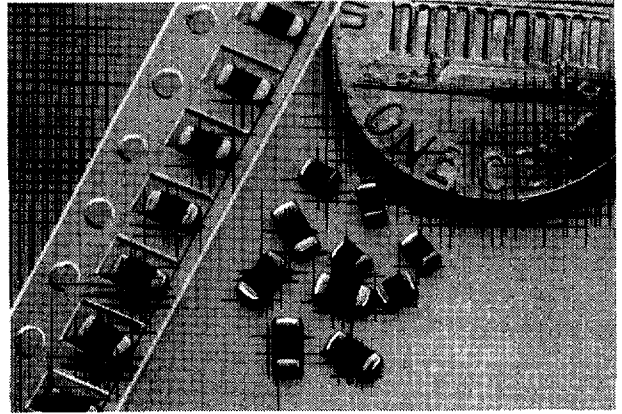


FEATURES

- NEGATIVE TEMPERATURE COEFFICIENT
- FAST RESPONSE TO TEMPERATURE VARIATIONS
MAKE THEM IDEALLY SUITED FOR TEMPERATURE SENSORS AND COMPENSATORS
- STANDARD EIA 0603 AND 0805 SIZES
- HIGH AGING STABILITY ASSURES HIGH RELIABILITY
- TAPE AND REEL FOR AUTOMATIC MOUNTING



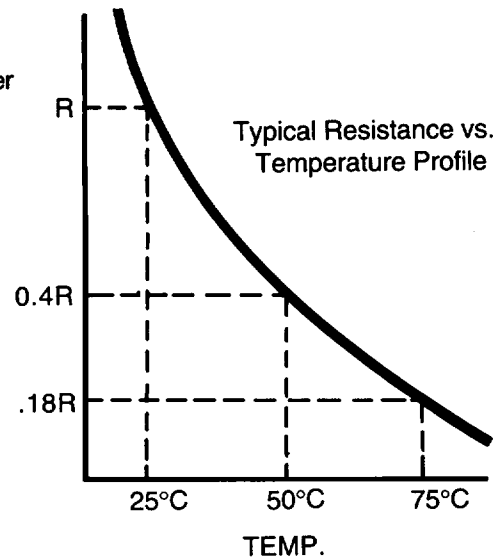
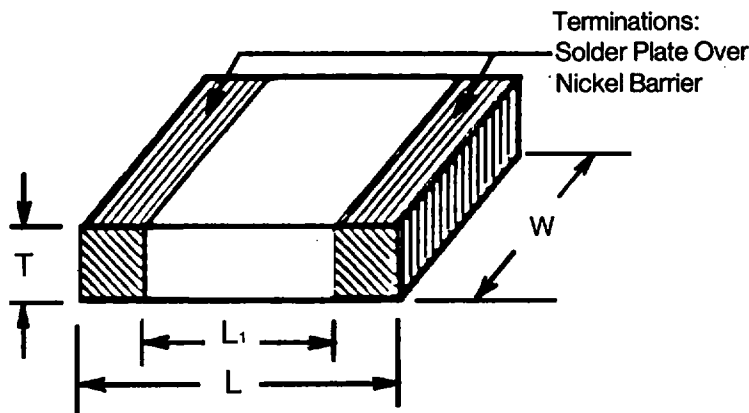
SURFACE MOUNT

CHARACTERISTICS

SERIES	NTHC06	NTHC08
EIA Size	0603	0805
Resistance Range (+25°C)*	30 Ω - 150K Ω	40 Ω - 2MEG Ω
Operating Temperature Range	-40°C ~ +100°C	-40°C ~ +125°C
Storage Temperature Range	-40°C ~+ 100°C	-40°C ~ + 125°C
Maximum Power Rating**	225mW	500mW
Dissipation Constant	3mW/°C	5mW/°C
Resistance Tolerance (at 25°C)	(K) ±10% STD. (J) ±5% OPT.	
β Value Tolerance	(J) ±5% STD. (H) ±3% OPT.	

* Note 1: See Standard Products Tables

** Note 2: Test Method per JIS-C2571



Dimensions (mm)

SERIES	EIA SIZE	L	W	T _{max}	L ₁ Min
NTHC06	0603	1.6 ± 0.15	0.80 ± 0.15	0.95	0.3
NTHC08	0805	2.0 ± 0.20	1.25 ± 0.20	1.25	0.4

NIC's Application Bulletin #NTHC-O2, Contains Resistance Over Temperature Information. Contact NIC For A Copy.



STANDARD PRODUCTS TABLES:

**TYPE: NTHC06
(0603)**

Resistance	β Value	β Code	TC (%/°C)
(300) 30 Ω	2150	2D	-2.42
(400) 40 Ω	2200	2E	-2.48
(500) 50 Ω	2250	2F	-2.53
(680) 68 Ω	2350	2H	-2.65
(101) 100 Ω	2700	2R	-3.04
(151) 150 Ω	2800	2T	-3.15
(221) 220 Ω	2900	2V	-3.27
(331) 330 Ω	3000	3A	-3.38
(471) 470 Ω	3100	3C	-3.49
(681) 680 Ω	3150	3D	-3.55
(102) 1k Ω	3250	3F	-3.66
(152) 1.5k Ω	3400	3I	-3.83
(222) 2.2k Ω	3500	3K	-3.94
(332) 3.3k Ω	3650	3N	-4.11
(472) 4.7k Ω	3750	3S	-4.22
(682) 6.8k Ω	3900	3V	-4.39
(103) 10k Ω	4100	4C	-4.62
(153) 15k Ω	3850	3U	-4.34
(223) 22k Ω	3550	3L	-4.00
(333) 33k Ω	3450	3J	-3.88
(473) 47k Ω	3500	3K	-3.94
(683) 68k Ω	3600	3M	-4.05
(104) 100k Ω	3700	3R	-4.17
(154) 150k Ω	3750	3S	-4.22

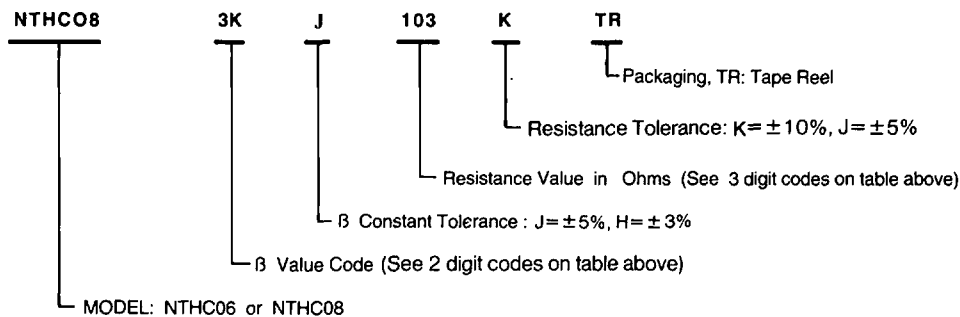
**TYPE: NTHC08
(0805)**

Resistance	β Value	β Code	TC (%/°C)
(400) 40 Ω	2300	2G	-2.59
(500) 50 Ω	2400	2I	-2.70
(680) 68 Ω	2650	2N	-2.98
(101) 100 Ω	2750	2S	-3.10
(151) 150 Ω	2800	2T	-3.15
(221) 220 Ω	2900	2V	-3.27
(331) 330 Ω	3000	3A	-3.38
(471) 470 Ω	3100	3C	-3.49
(681) 680 Ω	3200	3E	-3.60
(102) 1k Ω	3200	3E	-3.60
(152) 1.5k Ω	3400	3I	-3.83
(202) 2k Ω	3500	3K	-3.94
(302) 3k Ω	4100	4C	-4.62
(332) 3.3k Ω	3750	3S	-4.22
(472) 4.7k Ω	3950	3W	-4.45
(682) 6.8k Ω	4100	4C	-4.62
(103) 10k Ω	3350	3H	-3.75
(153) 15k Ω	3650	3N	-4.11
(223) 22k Ω	3750	3S	-4.22
(333) 33k Ω	3800	3T	-4.28
(473) 47k Ω	3850	3U	-4.34
(683) 68k Ω	3650	3N	-4.11
(803) 80k Ω	3700	3R	-4.17
(104) 100k Ω	4100	4C	-4.62
(154) 150k Ω	4150	4D	-4.67
(205) 2M Ω	5050	5A	-5.69

NOTE: 1. TC (%/°C) is Negative Temperature Coefficient at 25°C expressed in % resistance change per °C

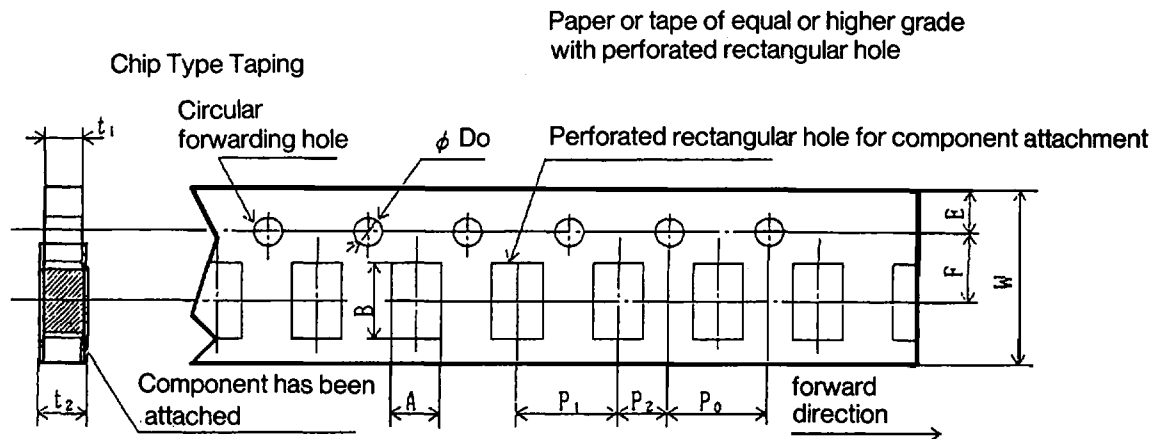
2. β value is specified for 25°C ~ 50°C

PART NUMBERING SYSTEM



Tape Packaging (Paper Tape)

Tape Dimensions

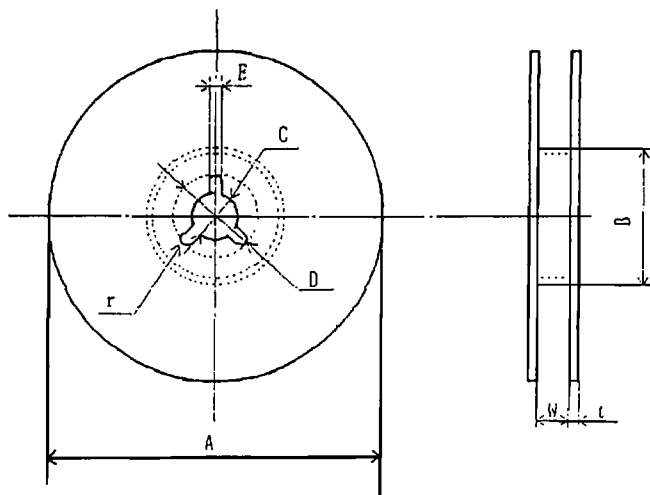


SERIES	EIA Size	A	B
NTHC06	0603	1.1 ± 0.2	1.9 ± 0.2
NTHC08	0805	1.65 ± 0.2	2.4 ± 0.2

Unit: mm

W	F	E	P ₁	P ₂	P ₀	Do	t ₁	t ₂	Insert Hole
8.0 ±0.03	3.5 ±0.05	1.75 ±0.1	4.0 ±0.1	2.0 ±0.05	4.0 ±0.1	Ø1.5 ± 0.1	1.1 or less	1.1 or less	Perforated Rectangular Holes

Reel Dimensions

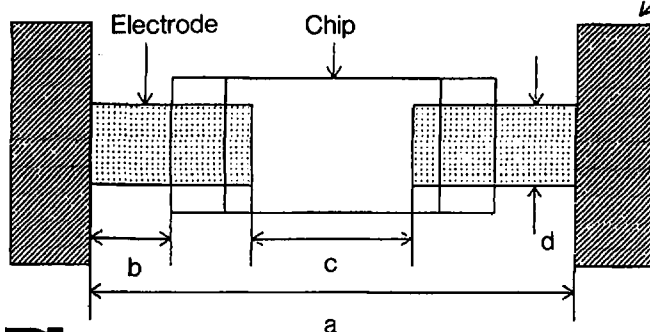


Quantity per Reel : 4000 pcs.

Unit: mm

A	B	C	D	E	W	t	r
Ø178 ±2.0	Ø50 or more	Ø13.0 ±0.5	Ø21.0 ±0.8	2.0 ±0.5	10.0 ±1.5	0.8 ±0.2	1.0

Land pattern dimensions



Solder Resist

Unit: mm

Dim	NTHC06 (0603)		NTHC08 (0805)	
	Flow Soldering	Reflow Soldering	Flow Soldering	Reflow Soldering
a	2.6 ~ 3.2	2.6 ~ 3.2	3.0 ~ 4.0	3.0 ~ 4.5
b	0.4 ~ 0.9	0.4 ~ 0.9	0.6 ~ 1.2	0.6 ~ 1.6
c	0.8 ~ 1.0	0.8 ~ 1.0	0.8 ~ 1.4	0.8 ~ 1.4
d	0.7 ~ 0.8	0.7 ~ 0.8	0.9 ~ 1.2	0.9 ~ 1.5

