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January 9, 2013

SUB: Product Change Notification, EOL Notice – Discontinued Product

Products Impacted by this notice: **0603 case size** thin film chip inductors

NIC Part Numbers: See below **EOL part number** table below;

EFFECTIVE: Last Order Date: January 31st 2013 / Last Delivery Date: February 28<sup>th</sup> 2013

REASON FOR CHANGE: Reduced market demand for 0603 case size

### Suggested Alternates & Replacements

- 1.) Same Size 0603 Case Size - **NML06** Multilayer Chip Inductors / Designed for High Frequency Applications / High Q and SRF Characteristics
- 2.) Same Construction - **Thin Film Construction NTI04** in smaller **0402** case size

Inductance (nH)	EOL Part Number	NML06 Alternative	NTI04 Alternative
1	NTI06_1N0TRF	NML06D1N0TRF	NTI04_1N0TRF
1.2	NTI06_1N2TRF	NML06D1N2TRF	NTI04_1N2TRF
1.5	NTI06_1N5TRF	NML06D1N5TRF	NTI04_1N5TRF
1.8	NTI06_1N8TRF	NML06D1N8TRF	NTI04_1N8TRF
2.2	NTI06_2N2TRF	NML06D2N2TRF	NTI04_2N2TRF
2.7	NTI06_2N7TRF	NML06D2N7TRF	NTI04_2N7TRF
3.3	NTI06_3N3TRF	NML06D3N3TRF	NTI04_3N3TRF
3.9	NTI06_3N9TRF	NML06D3N9TRF	NTI04_3N9TRF
4.7	NTI06_4N7TRF	NML06D4N7TRF	NTI04_4N7TRF
5.6	NTI06_5N6TRF	NML06D5N6TRF	NTI04_5N6TRF
6.8	NTI06_6N8TRF	NML06J6N8TRF	NTI04_6N8TRF
8.2	NTI06_8N2TRF	NML06J8N2TRF	NTI04_8N2TRF
10	NTI06_10NTRF	NML06J10NTRF	NTI04_10NTRF
12	NTI06_12NTRF	NML06J12NTRF	NTI04_12NTRF
15	NTI06_15NTRF	NML06J15NTRF	NTI04_15NTRF
18	NTI06_18NTRF	NML06J18NTRF	NTI04_18NTRF
22	NTI06_22NTRF	NML06J22NTRF	NTI04_22NTRF
27	NTI06_27NTRF	NML06J27NTRF	NTI04_27NTRF
33	NTI06_33NTRF	NML06J33NTRF	NTI04_33NTRF
39	NTI06_39NTRF	NML06J39NTRF	<--
47	NTI06_47NTRF	NML06J47NTRF	<--
56	NTI06_56NTRF	NML06J56NTRF	<--
68	NTI06_68NTRF	NML06J68NTRF	<--
100	NTI06_R10TRF	NML06JR10TRF	<--

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## FEATURES

- ULTRA-SMALL LOW PROFILE 0201, 0402 & 0603 SIZES
- HIGH CURRENT & HIGH SRF
- COMPATIBLE WITH Pb-FREE SOLDERING
- RoHS COMPLIANT

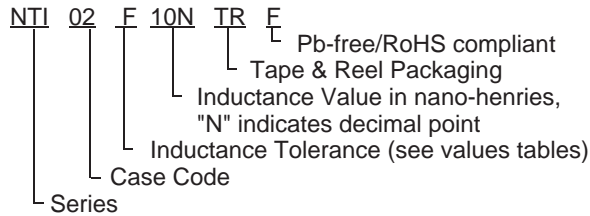
**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details

## CHARACTERISTICS

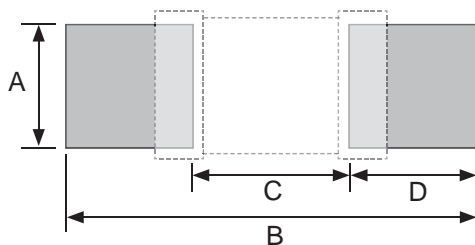
Case Size	0201	0402	0603
Inductance Range	0.1nH ~ 10nH	0.2nH ~ 33nH	1.0nH ~ 100nH
Available Tolerance	±0.1nH (B), ±0.2nH (C), ±0.3nH (D), ±1% (F), ±2% (G) & ±5% (J)		
Temperature Range	-40°C ~ +85°C		
Resistance to Solder Heat	260°C ±5°C for 5 seconds		
Temperature Cycling	ΔL ≤10% after 10 cycles -40°C/+20°C/+85°C/+20°C		

## PART NUMBER SYSTEM

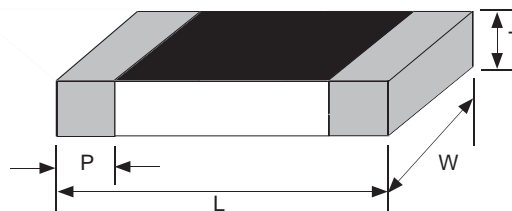
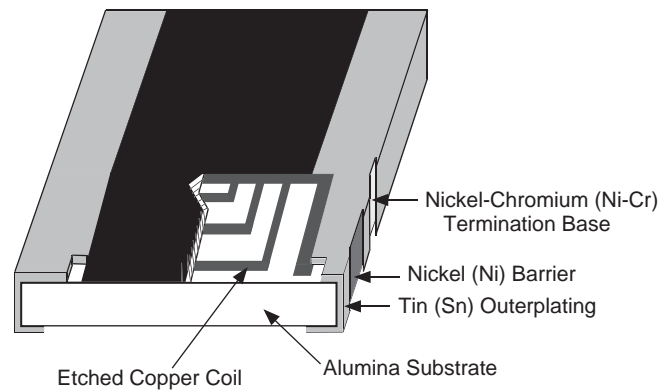


CASE DIMENSIONS (mm)				
Case Size	L	W	T	P
0201	0.60 ± 0.05	0.30 ± 0.05	0.23 ± 0.05	0.15 ± 0.05
0402	1.0 ± 0.05	0.5 ± 0.05	0.32 ± 0.05	0.20 ± 0.10
0603	1.6 ± 0.10	0.8 ± 0.10	0.45 ± 0.10	0.30 ± 0.20

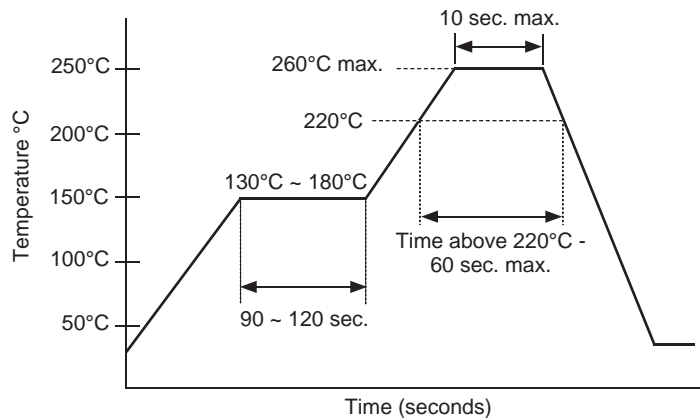
LAND PATTERN DIMENSIONS (mm)				
Case Size	A	B	C	D
0201	0.2 ~ 0.3	0.8 ~ 0.9	0.2 ~ 0.3	0.3 ~ 0.4
0402	0.5 ~ 0.6	1.5 ~ 1.8	0.5 ~ 0.6	0.5 ~ 0.6
0603	0.6 ~ 1.0	2.4 ~ 2.8	0.7 ~ 0.9	0.9 ~ 1.1



## CONSTRUCTION



## REFLOW SOLDERING PROFILE



Available Values - 0201 Case Size						
Inductance Value (nH)	Part Number	DC Resistance Max. ( $\Omega$ )	DC Current Max. (mA)	Available Tolerances & Tolerance Codes	Q Factor Min. & Test Frequency	SRF Min. (GHz)
0.1	NTI02_0N1TRF	0.20	400	$\pm 0.1\text{nH (B)}, \pm 0.2\text{nH (C)}, \pm 0.3\text{nH (D)}$	8 min. @ 500MHz	9
0.2	NTI02_0N2TRF					
0.3	NTI02_0N3TRF					
0.4	NTI02_0N4TRF	0.25	350			
0.5	NTI02_0N5TRF					
0.6	NTI02_0N6TRF					
0.7	NTI02_0N7TRF	0.30	300			
0.8	NTI02_0N8TRF					
0.9	NTI02_0N9TRF					
1.0	NTI02_1N0TRF	0.35	250			
1.1	NTI02_1N1TRF					
1.2	NTI02_1N2TRF					
1.3	NTI02_1N3TRF	0.45	200			
1.4	NTI02_1N4TRF					
1.5	NTI02_1N5TRF					
1.6	NTI02_1N6TRF	0.55	200			
1.7	NTI02_1N7TRF					
1.8	NTI02_1N8TRF					
1.9	NTI02_1N9TRF	0.70	200			
2.0	NTI02_2N0TRF					
2.1	NTI02_2N1TRF					
2.2	NTI02_2N2TRF	0.80	150			
2.3	NTI02_2N3TRF					
2.4	NTI02_2N4TRF					
2.5	NTI02_2N5TRF	1.00	110			
2.6	NTI02_2N6TRF					
2.7	NTI02_2N7TRF					
2.8	NTI02_2N8TRF	1.20	100			
2.9	NTI02_2N9TRF					
3.0	NTI02_3N0TRF					
3.1	NTI02_3N1TRF	1.30	80			
3.2	NTI02_3N2TRF					
3.3	NTI02_3N3TRF					
3.4	NTI02_3N4TRF	1.40	130			
3.5	NTI02_3N5TRF					
3.6	NTI02_3N6TRF					
3.7	NTI02_3N7TRF	1.60	120			
3.8	NTI02_3N8TRF					
3.9	NTI02_3N9TRF					
4.0	NTI02_4N0TRF	1.80	110			
4.4	NTI02_4N4TRF					
4.7	NTI02_4N7TRF					
4.9	NTI02_4N9TRF	2.00	100			
5.6	NTI02_5N6TRF					
6.1	NTI02_6N1TRF					
6.8	NTI02_6N8TRF	2.30	80			
7.4	NTI02_7N4TRF					
8.2	NTI02_8N2TRF					
9.1	NTI02_9N1TRF	3.00	100			
9.2	NTI02_9N2TRF					
10	NTI02_10NTRF			3.25		
		3.50		$\pm 2\% (G), \pm 5\% (J)$		2



Available Values - 0603 Case Size								
Inductance Value (nH)	Part Number	DC Resistance Max. ( $\Omega$ )	DC Current Max. (mA)	Available Tolerances & Tolerance Codes	Q Factor Min. & Test Frequency	SRF Min. (GHz)		
1.0	NTI06_1N0TRF	0.35	800	$\pm 0.1\text{nH}$ (B), $\pm 0.2\text{nH}$ (C), $\pm 0.3\text{nH}$ (D)	15 @ 300MHz	13		
1.2	NTI06_1N2TRF							
1.5	NTI06_1N5TRF							
1.8	NTI06_1N8TRF							
2.2	NTI06_2N2TRF	0.45	300					
2.7	NTI06_2N7TRF							
3.3	NTI06_3N3TRF							
3.9	NTI06_3N9TRF							
4.7	NTI06_4N7TRF	0.55	250			$\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)	15 @ 300MHz	5
5.6	NTI06_5N6TRF							
6.8	NTI06_6N8TRF							
8.2	NTI06_8N2TRF							
10	NTI06_10NTRF	0.95	200					
12	NTI06_12NTRF							
15	NTI06_15NTRF							
18	NTI06_18NTRF							
22	NTI06_22NTRF	1.65	150					
27	NTI06_27NTRF							
33	NTI06_33NTRF							
39	NTI06_39NTRF							
47	NTI06_47NTRF	1.95	100					
56	NTI06_56NTRF							
68	NTI06_68NTRF							
100	NTI06_R10TRF							
		2.35				1.5		
		2.75				1		
		3.00						
		5.00						
		7.50						

### TAPE AND REEL DIMENSIONS (mm)

Type	A	B	E	F	W	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	t	Reel Quantity
NTI02	0.40 ± 0.05	0.70 ± 0.05	1.75 ± 0.05	3.5 ± 0.05	8.0 ± 0.10	4.0 ± 0.10	2.0 ± 0.05	2.0 ± 0.05	0.42 ± 0.02	10,000
NTI04	0.70 ± 0.05	1.16 ± 0.05					4.0 ± 0.10		0.40 ± 0.03	
NTI06	1.10 ± 0.10	1.90 ± 0.10					0.60 ± 0.03		5,000	

