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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 28th 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	<--

Prepared by: Technical Product Marketing Group / tpmg@niccomp.com

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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

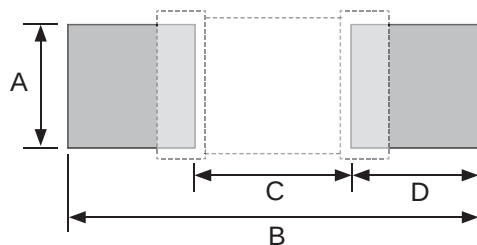
Case Size	0201	0402	0603
Inductance Range	0.1nH ~ 10nH	0.2nH ~ 33nH	1.0nH ~ 100nH
Available Tolerance	$\pm 0.1\text{nH}$ (B), $\pm 0.2\text{nH}$ (C), $\pm 0.3\text{nH}$ (D), $\pm 1\%$ (F), $\pm 2\%$ (G) & $\pm 5\%$ (J)		
Temperature Range	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$		
Resistance to Solder Heat	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5 seconds		
Temperature Cycling	$\Delta L \leq 10\%$ after 10 cycles $-40^{\circ}\text{C}/+20^{\circ}\text{C}/+85^{\circ}\text{C}/+20^{\circ}\text{C}$		

PART NUMBER SYSTEM

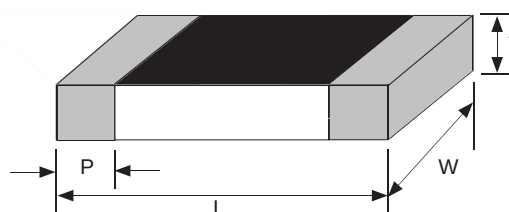
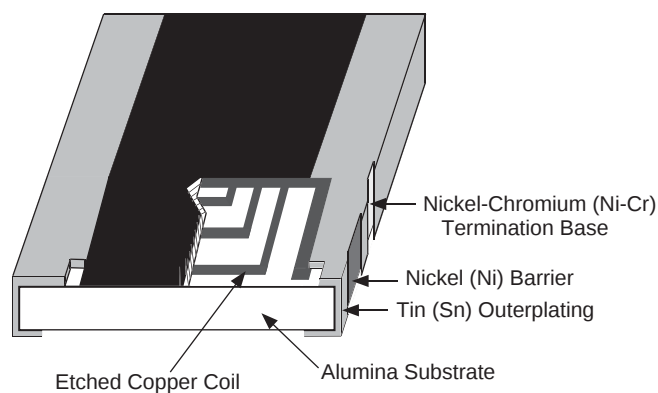
NTI 02 F 10N TR E
 NTI Series
 02 Case Code
 F Inductance Tolerance (see values tables)
 10N Inductance Value in nano-henries, "N" indicates decimal point
 TR Tape & Reel Packaging
 E Pb-free/RoHS compliant

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

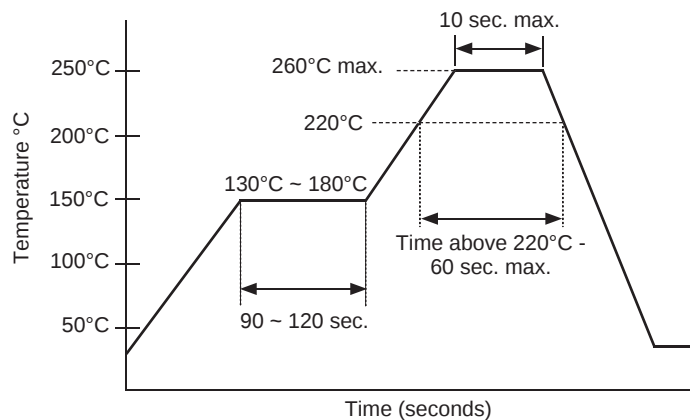
LAND PATTERN DIMENSIONS (mm)				
Case Size	A	B	C	D
0201	0.2 ~ 0.3	0.8 ~ 0.9	0.2 ~ 0.3	0.3 ~ 0.4
0402	0.5 ~ 0.6	1.5 ~ 1.8	0.5 ~ 0.6	0.5 ~ 0.6
0603	0.6 ~ 1.0	2.4 ~ 2.8	0.7 ~ 0.9	0.9 ~ 1.1



CONSTRUCTION



REFLOW SOLDERING PROFILE



Available Values - 0201 Case Size						
Inductance Value (nH)	Part Number	DC Resistance Max. (Ω)	DC Current Max. (mA)	Available Tolerances & Tolerance Codes	Q Factor Min. & Test Frequency	SRF Min. (GHz)
0.1	NTI02_0N1TRF	0.20	400	±0.1nH (B), ±0.2nH (C), ±0.3nH (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				
2.6	NTI02_2N6TRF					
2.7	NTI02_2N7TRF					
2.8	NTI02_2N8TRF	1.20				
2.9	NTI02_2N9TRF					
3.0	NTI02_3N0TRF					
3.1	NTI02_3N1TRF	1.20				
3.2	NTI02_3N2TRF					
3.3	NTI02_3N3TRF					
3.4	NTI02_3N4TRF					
3.5	NTI02_3N5TRF					
3.6	NTI02_3N6TRF					
3.7	NTI02_3N7TRF					
3.8	NTI02_3N8TRF					
3.9	NTI02_3N9TRF					
4.0	NTI02_4N0TRF	1.30	140			
4.4	NTI02_4N4TRF					
4.7	NTI02_4N7TRF					
4.9	NTI02_4N9TRF	1.60	130			
5.6	NTI02_5N6TRF	1.80				
6.1	NTI02_6N1TRF	2.00		120		
6.8	NTI02_6N8TRF	2.30				
7.4	NTI02_7N4TRF	2.80	110			
8.2	NTI02_8N2TRF	3.00				
9.1	NTI02_9N1TRF	3.25		100		
9.2	NTI02_9N2TRF	3.50				
10	NTI02_10NTRF	80				

Available Values - 0402 Case Size								
Inductance Value (nH)	Part Number	DC Resistance Max. (Ω)	DC Current Max. (mA)	Available Tolerances & Tolerance Codes	Q Factor Min. & Test Frequency	SRF Min. (GHz)		
0.2	NTI04_0N2TRF	0.10	800	±0.1nH (B), ±0.2nH (C), ±0.3nH (D)	13 min. @ 500MHz	14		
0.3	NTI04_0N3TRF							
0.4	NTI04_0N4TRF							
0.5	NTI04_0N5TRF	0.15	700			12		
0.8	NTI04_0N8TRF							
0.9	NTI04_0N9TRF							
1.0	NTI04_1N0TRF							
1.1	NTI04_1N1TRF					10		
1.2	NTI04_1N2TRF							
1.3	NTI04_1N3TRF							
1.4	NTI04_1N4TRF	0.25	560			8		
1.5	NTI04_1N5TRF							
1.6	NTI04_1N6TRF							
1.7	NTI04_1N7TRF							
1.8	NTI04_1N8TRF							
1.9	NTI04_1N9TRF	0.35	440			6		
2.0	NTI04_2N0TRF							
2.1	NTI04_2N1TRF							
2.2	NTI04_2N2TRF							
2.3	NTI04_2N3TRF							
2.4	NTI04_2N4TRF	0.45	380			5.5		
2.5	NTI04_2N5TRF							
2.6	NTI04_2N6TRF							
2.7	NTI04_2N7TRF							
2.8	NTI04_2N8TRF							
2.9	NTI04_2N9TRF	0.55	340			4.5		
3.0	NTI04_3N0TRF							
3.1	NTI04_3N1TRF							
3.2	NTI04_3N2TRF							
3.3	NTI04_3N3TRF							
3.4	NTI04_3N4TRF	0.65	320			3.7		
3.5	NTI04_3N5TRF							
3.6	NTI04_3N6TRF							
3.7	NTI04_3N7TRF							
3.8	NTI04_3N8TRF							
3.9	NTI04_3N9TRF	0.85	280			3.3		
4.3	NTI04_4N3TRF							
4.7	NTI04_4N7TRF							
5.4	NTI04_5N4TRF							
5.6	NTI04_5N6TRF							
5.9	NTI04_5N9TRF	1.05	260			3.1		
6.5	NTI04_6N5TRF							
6.8	NTI04_6N8TRF							
7.2	NTI04_7N2TRF							
8.0	NTI04_8N0TRF					1.25	220	2.8
8.1	NTI04_8N1TRF							
8.2	NTI04_8N2TRF							
9.1	NTI04_9N1TRF	1.35	200					2.5
10	NTI04_10NTRF							
10.8	NTI04_10N8TRF							
12	NTI04_12NTRF					1.55	180	4.5
13.8	NTI04_13N8TRF							
15	NTI04_15NTRF							
17	NTI04_17NTRF	1.75	130					3.7
18	NTI04_18NTRF							
20.8	NTI04_20N8TRF							
22	NTI04_22NTRF					1.95	100	3.3
27	NTI04_27NTRF							
33	NTI04_33NTRF							
		4.50	75	±1% (F), ±2% (G) & ±5% (J)	±5% (J)			

Available Values - 0603 Case Size							
Inductance Value (nH)	Part Number	DC Resistance Max. (Ω)	DC Current Max. (mA)	Available Tolerances & Tolerance Codes	Q Factor Min. & Test Frequency	SRF Min. (GHz)	
1.0	NTI06_1N0TRF	0.35	800	±0.1nH (B), ±0.2nH (C), ±0.3nH (D)	15 @ 300MHz	13	
1.2	NTI06_1N2TRF					10	
1.5	NTI06_1N5TRF						8
1.8	NTI06_1N8TRF						
2.2	NTI06_2N2TRF	5					
2.7	NTI06_2N7TRF		4				
3.3	NTI06_3N3TRF					3	
3.9	NTI06_3N9TRF						2
4.7	NTI06_4N7TRF	1.5					
5.6	NTI06_5N6TRF		1				
6.8	NTI06_6N8TRF					1	
8.2	NTI06_8N2TRF						1
10	NTI06_10NTRF	1					
12	NTI06_12NTRF		1				
15	NTI06_15NTRF			1			
18	NTI06_18NTRF					1	
22	NTI06_22NTRF	1					
27	NTI06_27NTRF		1				
33	NTI06_33NTRF			1			
39	NTI06_39NTRF					1	
47	NTI06_47NTRF	1					
56	NTI06_56NTRF		1				
68	NTI06_68NTRF			1			
100	NTI06_R10TRF					1	
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TAPE AND REEL DIMENSIONS (mm)

Type	A	B	E	F	W	P ₀	P ₁	P ₂	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	10,000
NTI06	1.10 ± 0.10	1.90 ± 0.10							0.60 ± 0.03	5,000

