

## FEATURES

- SURFACE MOUNT CASE SIZES (0603 ~ 1812)
- DURABLE MULTILAYER CONSTRUCTION
- MAGNETICALLY SHIELDED
- TAPE & REEL PACKAGING FOR AUTOMATIC INSERTION
- BOTH FLOW AND REFLOW SOLDERABLE
- Pb-FREE/ROHS COMPLIANT

**RoHS Compliant**  
includes all homogeneous materials



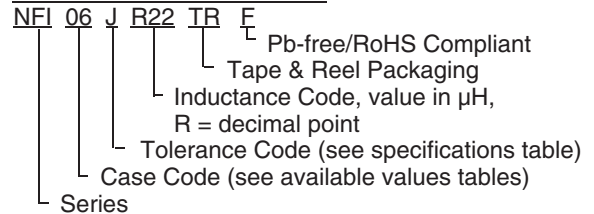
## SPECIFICATIONS

Case Size	NFI06	NFI08	NFI10	NFI12	NFI15	NFI18
	0603	0805	1008	1206	1210	1812
Inductance Range	0.047μH ~ 18μH	0.047μH ~ 33μH	0.10μH ~ 33μH	0.12μH ~ 33μH	0.12μH ~ 33μH	0.10μH ~ 33μH
Available Tolerance	5% (J), 10% (K), 15% (L), 20% (M), 25% (N)					
Temperature Range	-40°C ~ +85°C					
Resistance to Solder Heat	260°C for 10 seconds					
Temperature Rise	Delta T at IDC +30°C max.					

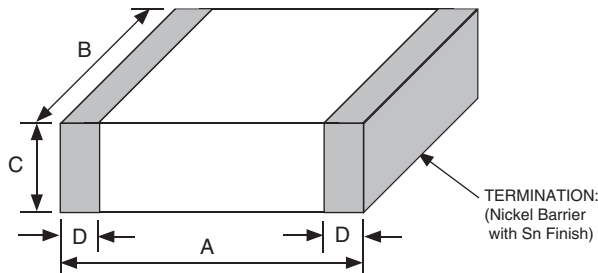
## CASE SIZE DIMENSIONS (mm)

Type	Case Size	A	B	C	D
NFI06	0603	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2
NFI08	0805	2.0 ± 0.15	1.25 ± 0.15	0.85 ± 0.20	0.5 ± 0.3
				1.25 ± 0.20	
NFI10	1008	2.5 ± 0.20	2.0 ± 0.20	1.6 ± 0.20	0.5 ± 0.3
NFI12	1206	3.2 ± 0.20	1.6 ± 0.20	1.1 ± 0.30	0.5 ± 0.3
NFI15	1210	3.2 ± 0.20	2.5 ± 0.15	1.3 ± 0.20	0.5 ± 0.5
NFI18	1812	4.5 ± 0.20	3.2 ± 0.20	1.5 ± 0.20	0.5 ± 0.3

## PART NUMBER SYSTEM



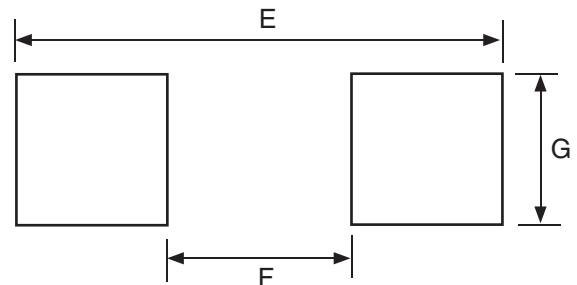
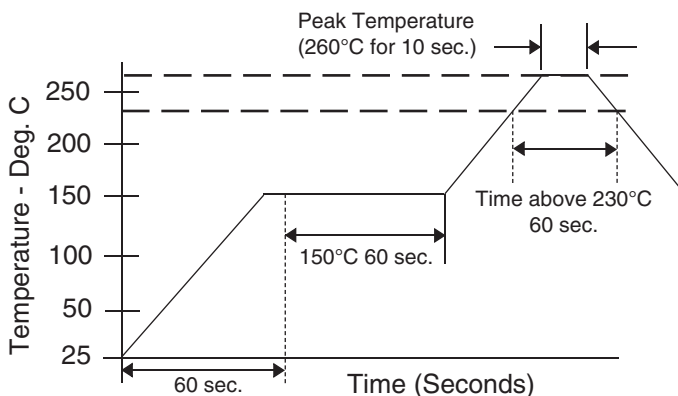
## DIMENSIONS (mm)



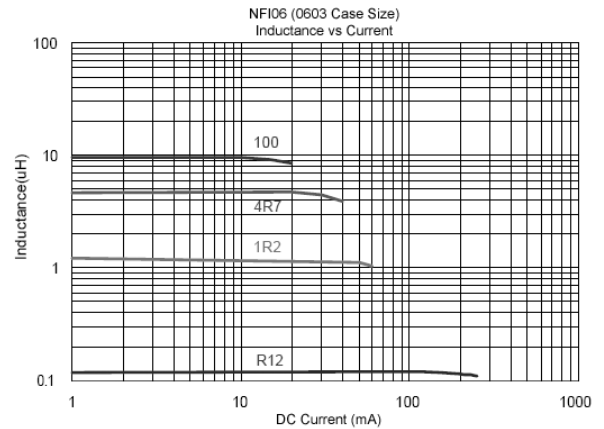
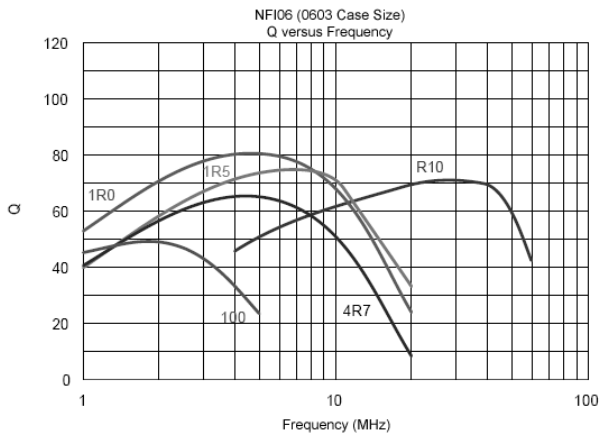
## LAND PATTERN DIMENSIONS (mm)

Case Size	E	F	G
0603	2.6	0.6	0.8
0805	3	1	1
1008	3.9	1.5	1.5
1206	4.4	2.2	1.4
1210	4.4	2.2	3.4
1812	5.9	2.57	4.22

## RECOMMENDED REFLOW SOLDERING PROFILE

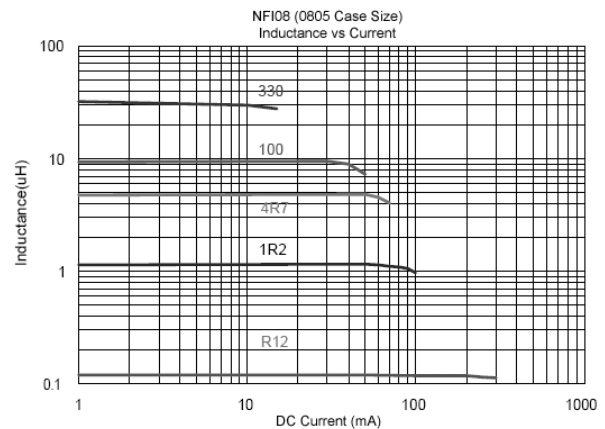
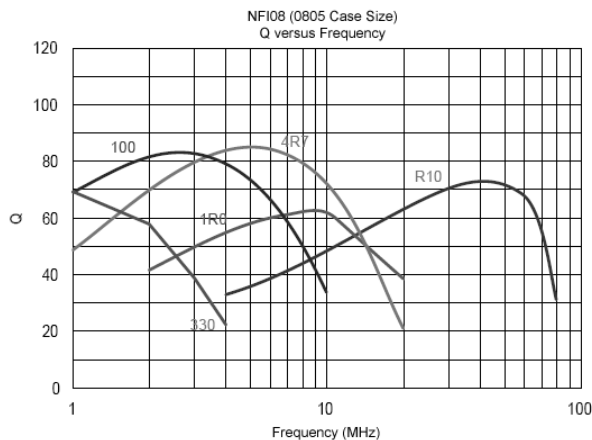


NFI06 (1.6mm X 0.8mm)							
EIA Size	NIC P/N	Inductance (μH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
0603	NFI06_47NTRF	0.047	10	50	0.30	50	260
	NFI06_68NTRF	0.068			0.30	50	250
	NFI06_82NTRF	0.082			0.30	50	245
	NFI06_R10TRF	0.1	15	25	0.50	50	240
	NFI06_R12TRF	0.12			0.50	50	205
	NFI06_R15TRF	0.15			0.60	50	180
	NFI06_R18TRF	0.18			0.60	50	165
	NFI06_R22TRF	0.22			0.80	50	150
	NFI06_R27TRF	0.27			0.80	50	135
	NFI06_R33TRF	0.33			0.85	35	125
	NFI06_R39TRF	0.39			1.00	35	110
	NFI06_R47TRF	0.47			1.35	35	105
	NFI06_R56TRF	0.56			1.55	35	95
	NFI06_R68TRF	0.68			1.70	35	80
	NFI06_R82TRF	0.82			2.10	35	75
	NFI06_1R0TRF	1.0	30	10	0.60	25	70
	NFI06_1R2TRF	1.2			0.80	25	60
	NFI06_1R5TRF	1.5			0.80	25	55
	NFI06_1R8TRF	1.8			0.95	25	50
	NFI06_2R2TRF	2.2			1.15	15	45
	NFI06_2R7TRF	2.7			1.35	15	40
	NFI06_3R3TRF	3.3			1.55	15	38
	NFI06_3R9TRF	3.9			1.70	15	36
	NFI06_4R7TRF	4.7			2.10	15	33
	NFI06_5R6TRF	5.6			1.55	15	22
	NFI06_6R8TRF	6.8			1.70	15	20
	NFI06_8R2TRF	8.2			2.10	15	18
	NFI06_100TRF	10		2.55	15	17	
	NFI06_120TRF	12		2.75	15	15	
	NFI06_150TRF	15		20	1	1.70	15
NFI06_180TRF	18	1.85				15	13

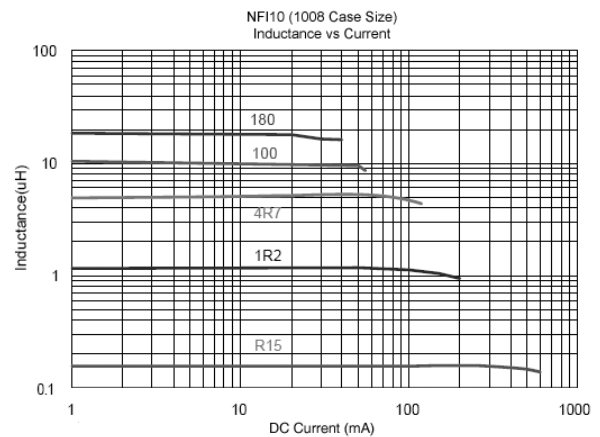
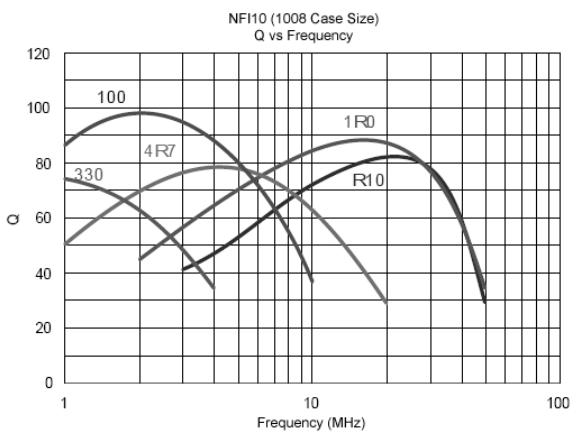


NFI08 (2.0mm X 1.25mm)							
EIA Size	NIC P/N	Inductance (μH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
0805	NFI08_47NTRF	0.047	15	50	0.20	300	320
	NFI08_68NTRF	0.068			0.20	300	280
	NFI08_82NTRF	0.082			0.20	300	255
	NFI08_R10TRF	0.1	20	25	0.30	250	235
	NFI08_R12TRF	0.12			0.30	250	220
	NFI08_R15TRF	0.15			0.40	250	200
	NFI08_R18TRF	0.18			0.40	250	185
	NFI08_R22TRF	0.22			0.50	250	170
	NFI08_R27TRF	0.27			0.50	250	150
	NFI08_R33TRF	0.33	25	25	0.55	250	145
	NFI08_R39TRF	0.39			0.65	200	135
	NFI08_R47TRF	0.47*			0.65	200	125
	NFI08_R56TRF	0.56*			0.75	150	115
	NFI08_R68TRF	0.68*			0.80	150	105
	NFI08_R82TRF	0.82*			1.00	150	100
	NFI08_1R0TRF	1.0	45	10	0.40	50	75
	NFI08_1R2TRF	1.2			0.50	50	65
	NFI08_1R5TRF	1.5			0.50	50	60
	NFI08_1R8TRF	1.8			0.60	50	55
	NFI08_2R2TRF	2.2			0.65	30	50
	NFI08_2R7TRF	2.7*			0.75	30	45
	NFI08_3R3TRF	3.3*			0.80	30	41
	NFI08_3R9TRF	3.9*			0.90	30	38
	NFI08_4R7TRF	4.7*			1.00	30	35
	NFI08_5R6TRF	5.6*			0.90	15	32
	NFI08_6R8TRF	6.8*			1.00	15	29
	NFI08_8R2TRF	8.2*			1.10	15	26
	NFI08_100TRF	10*	4	2	1.15	15	24
	NFI08_120TRF	12*			1.25	15	22
	NFI08_150TRF	15*			1	1	0.80
	NFI08_180TRF	18*	0.90	5			18
	NFI08_220TRF	22*	1.10	5			16
	NFI08_270TRF	27*	1.15	5			14
NFI08_330TRF	33*	1.25	5	13			
			0.4	1.25			5

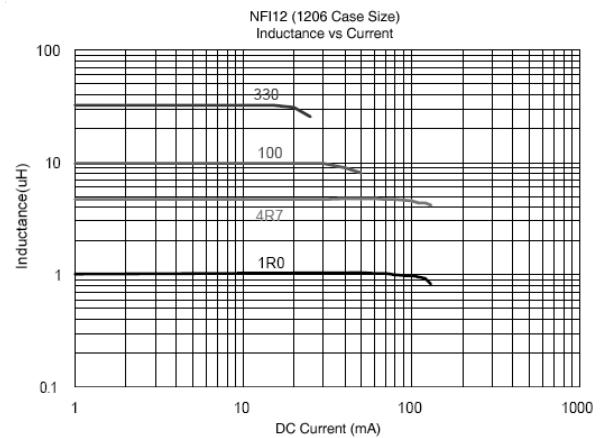
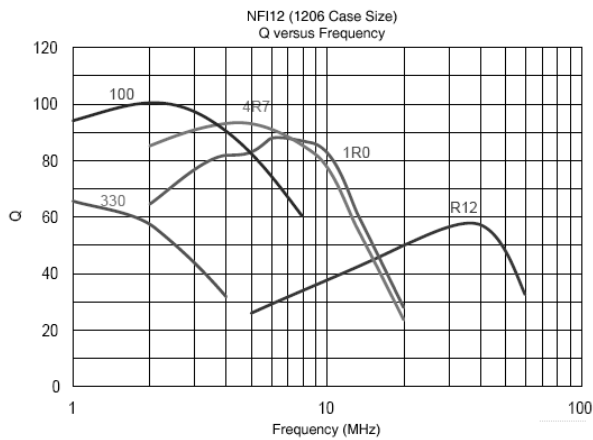
\*Note: These values have a maximum thickness of 1.45mm



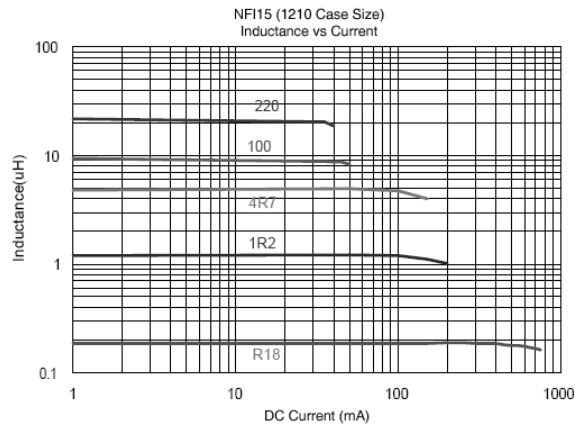
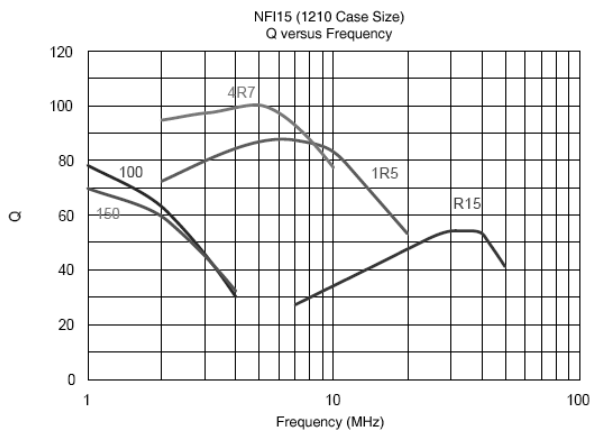
NFI10 (2.5mm X 2.0mm)							
EIA Size	NIC P/N	Inductance (μH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
1008	NFI10_R10TRF	0.10	30	25.2	0.21	450	680
	NFI10_R12TRF	0.12			0.22	400	650
	NFI10_R15TRF	0.15			0.25	400	530
	NFI10_R18TRF	0.18			0.29	370	520
	NFI10_R22TRF	0.22			0.30	370	390
	NFI10_R27TRF	0.27			0.33	350	330
	NFI10_R33TRF	0.33			0.39	350	310
	NFI10_R39TRF	0.39			0.40	320	290
	NFI10_R47TRF	0.47			0.44	300	240
	NFI10_R56TRF	0.56			0.49	250	210
	NFI10_R68TRF	0.68			0.52	250	180
	NFI10_R82TRF	0.82			0.61	200	155
	NFI10_1R0TRF	1.0			0.75	150	140
	NFI10_1R2TRF	1.2			0.87	120	135
	NFI10_1R5TRF	1.5			1.00	110	130
	NFI10_1R8TRF	1.8			1.10	100	120
	NFI10_2R2TRF	2.2			1.30	105	90
	NFI10_2R7TRF	2.7			1.40	100	80
	NFI10_3R3TRF	3.3			1.60	80	75
	NFI10_3R9TRF	3.9			1.70	80	75
	NFI10_4R7TRF	4.7			1.90	80	60
	NFI10_5R6TRF	5.6			2.20	80	60
	NFI10_6R8TRF	6.8	2.40	70	55		
	NFI10_8R2TRF	8.2	2.60	50	50		
	NFI10_100TRF	10	2.20	30	30		
	NFI10_120TRF	12	2.50	20	27		
	NFI10_150TRF	15	2.80	20	23		
	NFI10_180TRF	18	3.20	20	22		
	NFI10_220TRF	22	3.60	20	21		
	NFI10_270TRF	27	4.30	15	19		
	NFI10_330TRF	33	4.70	15	17		



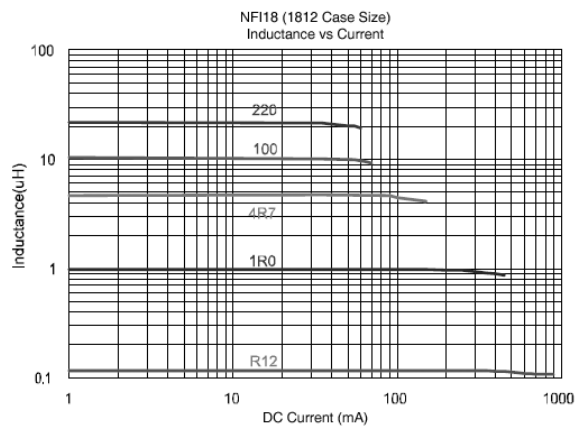
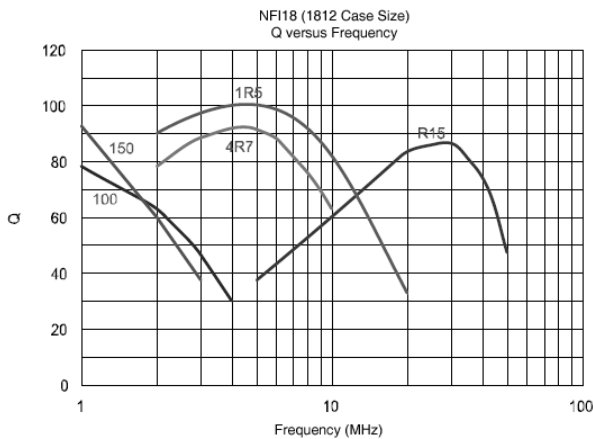
NFI12 (3.2mm X 1.6mm)							
EIA Size	NIC P/N	Inductance (μH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
1206	NFI12_47NTRF	0.047	20	50	0.15	300	320
	NFI12_68NTRF	0.068			0.25	300	280
	NFI12_R10TRF	0.10		25.2	0.25	250	235
	NFI12_R12TRF	0.12			0.30	250	220
	NFI12_R15TRF	0.15			0.30	250	200
	NFI12_R18TRF	0.18			0.40	250	185
	NFI12_R22TRF	0.22			0.40	250	170
	NFI12_R27TRF	0.27			0.50	250	150
	NFI12_R33TRF	0.33			0.50	250	145
	NFI12_R39TRF	0.39			25	0.60	250
	NFI12_R47TRF	0.47	0.60			200	125
	NFI12_R56TRF	0.56	0.70			200	115
	NFI12_R68TRF	0.68	0.80	150		105	
	NFI12_R82TRF	0.82	0.90	150		100	
	NFI12_1R0TRF	1.0	45	10		0.40	100
	NFI12_1R2TRF	1.2			0.50	100	65
	NFI12_1R5TRF	1.5			0.50	50	60
	NFI12_1R8TRF	1.8			0.50	50	55
	NFI12_2R2TRF	2.2			0.60	50	50
	NFI12_2R7TRF	2.7			0.60	50	45
	NFI12_3R3TRF	3.3			0.70	50	41
	NFI12_3R9TRF	3.9			0.80	50	38
	NFI12_4R7TRF	4.7			0.90	50	35
	NFI12_5R6TRF	5.6			50	4	0.70
	NFI12_6R8TRF	6.8	0.80	25			29
	NFI12_8R2TRF	8.2	0.90	25			26
	NFI12_100TRF	10	2	1.00		25	24
	NFI12_120TRF	12		1.05		15	22
	NFI12_150TRF	15		0.70		5	19
	NFI12_180TRF	18	35	1	0.70	5	18
	NFI12_220TRF	22			0.90	5	16
	NFI12_270TRF	27			0.90	5	14
	NFI12_330TRF	33			0.4	1.05	5



NFI15 (3.2mm X 2.5mm)							
EIA Size	NIC P/N	Inductance (μH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
1210	NFI15_R12TRF	0.12	30	25.2	0.22	450	500
	NFI15_R15TRF	0.15			0.25	450	450
	NFI15_R18TRF	0.18			0.28	420	380
	NFI15_R22TRF	0.22			0.32	420	350
	NFI15_R27TRF	0.27			0.36	420	260
	NFI15_R33TRF	0.33			0.40	400	220
	NFI15_R39TRF	0.39			0.45	400	200
	NFI15_R47TRF	0.47			0.50	370	180
	NFI15_R56TRF	0.56			0.55	320	150
	NFI15_R68TRF	0.68			0.60	300	140
	NFI15_R82TRF	0.82			0.65	280	130
	NFI15_1R0TRF	1.0			0.70	200	120
	NFI15_1R2TRF	1.2		0.75	150	100	
	NFI15_1R5TRF	1.5		0.85	150	85	
	NFI15_1R8TRF	1.8		0.90	150	80	
	NFI15_2R2TRF	2.2		1.00	150	75	
	NFI15_2R7TRF	2.7		1.10	120	70	
	NFI15_3R3TRF	3.3		1.20	120	60	
	NFI15_3R9TRF	3.9		1.30	120	55	
	NFI15_4R7TRF	4.7		1.50	120	50	
	NFI15_5R6TRF	5.6		1.60	120	47	
	NFI15_6R8TRF	6.8		1.80	100	43	
	NFI15_8R2TRF	8.2		2.00	90	40	
	NFI15_100TRF	10		2.10	45	36	
	NFI15_120TRF	12		2.50	45	33	
	NFI15_150TRF	15		2.80	35	30	
	NFI15_180TRF	18		3.30	35	27	
	NFI15_220TRF	22		3.70	35	25	
	NFI15_270TRF	27		5.00	15	20	
	NFI15_330TRF	33		5.60	15	17	



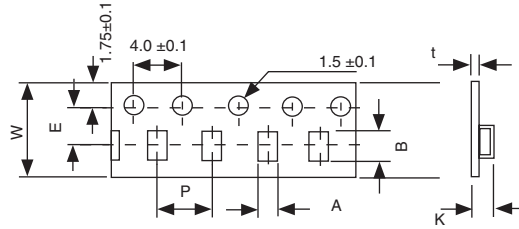
NFI18 (4.5mm X 3.2mm)							
EIA Size	NIC P/N	Inductance (μH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
1812	NFI18_R10TRF	0.10	35	25.2	0.18	700	300
	NFI18_R12TRF	0.12			0.20	670	250
	NFI18_R15TRF	0.15			0.22	670	180
	NFI18_R18TRF	0.18			0.24	670	140
	NFI18_R22TRF	0.22	40		0.25	640	120
	NFI18_R27TRF	0.27			0.26	605	105
	NFI18_R33TRF	0.33			0.28	575	100
	NFI18_R39TRF	0.39			0.30	545	95
	NFI18_R47TRF	0.47			0.32	510	90
	NFI18_R56TRF	0.56			0.36	480	85
	NFI18_R68TRF	0.68			0.40	445	80
	NFI18_R82TRF	0.82			0.45	415	75
	NFI18_1R0TRF	1.0	50	7.96	0.50	370	70
	NFI18_1R2TRF	1.2			0.55	300	60
	NFI18_1R5TRF	1.5			0.60	300	54
	NFI18_1R8TRF	1.8			0.65	300	50
	NFI18_2R2TRF	2.2			0.70	250	46
	NFI18_2R7TRF	2.7			0.75	170	43
	NFI18_3R3TRF	3.3			0.80	160	40
	NFI18_3R9TRF	3.9			0.90	160	35
	NFI18_4R7TRF	4.7			1.00	150	32
	NFI18_5R6TRF	5.6			1.10	150	30
	NFI18_6R8TRF	6.8			1.20	120	27
	NFI18_8R2TRF	8.2			1.40	100	25
	NFI18_100TRF	10	2.52	1.60	65	20	
	NFI18_120TRF	12		2.00	60	18	
	NFI18_150TRF	15		2.50	55	17	
	NFI18_180TRF	18		2.80	45	15	
	NFI18_220TRF	22		3.20	45	13	
	NFI18_270TRF	27		3.60	40	12	
	NFI18_330TRF	33	4.00	40	11		



## CARRIER TAPE DIMENSIONS (mm)

Size	B(mm)	A(mm)	K(mm)	E(mm)	P(mm)	t(mm)	W
NFI06	1.80±0.10	1.01±0.10	1.02±0.10	3.5±0.05	4.0±0.10	0.22±0.05	8.0±0.10
NFI08	2.25±0.10	1.42±0.10	1.04±0.10				
NFI08*	2.35±0.10	1.50±0.10	1.45±0.10				
NFI10	2.75 ±0.10	2.20±0.10	2.00±0.10				
NFI12	3.50±0.10	1.88±0.10	1.27±0.10				
NFI15	3.42±0.10	2.77±0.10	1.55±0.10				
NFI18	4.95±0.10	3.66±0.10	1.85±0.10	5.5±0.05	8.0±0.10	0.24±0.05	12.0±0.10

\*Parts with 1.25mm thickness



## REEL DIMENSIONS (mm)

Series	A ± 2.0	B ± 2.0	D ± 0.5	E ± 0.5	R ± 0.5	t ± 0.5	Quantity/Reel
NFI06	178	60	10.5	2.0	13.5	9.0	4,000
NFI08							4,000
NFI08*							2,000
NFI10							2,000
NFI12							3,000
NFI15							2,500
NFI18						13.5	1,000

