Ferrite Chip Inductor

NFI Series

FEATURES

- SURFACE MOUNT CASE SIZES (0603 ~ 1206)
- DURABLE MULTILAYER CONSTRUCTION
- MAGNETICALLY SHEILDED
- TAPE & REEL PACKAGING FOR AUTOMATIC INSERTION
- BOTH FLOW AND REFLOW SOLDERABLE
- Pb-FREE/RoHS COMPLIANT

RoHS Compliant
includes all homogeneous materials

*See Part Number System for Details



SPECIFICATIONS

Case Size	NFI06	NFI08	NFI12
	0603	0805	1206
Inductance Range	0.047µH ~ 10µH	0.047µH ~ 33µH	0.12µH ~ 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.		

*10% (K) tolerance is standard. Minimum order requirement may apply for optional tolerances.

CASE SIZE DIMENSIONS (mm)

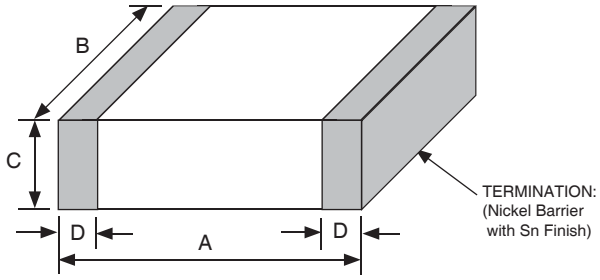
Type	Case Size	A	B	C	D
NFI06	0603	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2
NFI08	0805	2.0 ± 0.15	1.25 ± 0.15	0.85 ± 0.20	0.5 ± 0.3
NFI12	1206	3.2 ± 0.20	1.6 ± 0.20	1.25 ± 0.20 1.1 ± 0.30	0.5 ± 0.3

PART NUMBER SYSTEM

NFI 06 K R22 TR F

- F — RoHS Compliant
- TR — Tape & Reel Packaging
- R22 — Inductance Code, value in µH, R = decimal point
- K — Tolerance Code (see specifications table)
- 06 — Case Code (see available values tables)
- NFI — Series

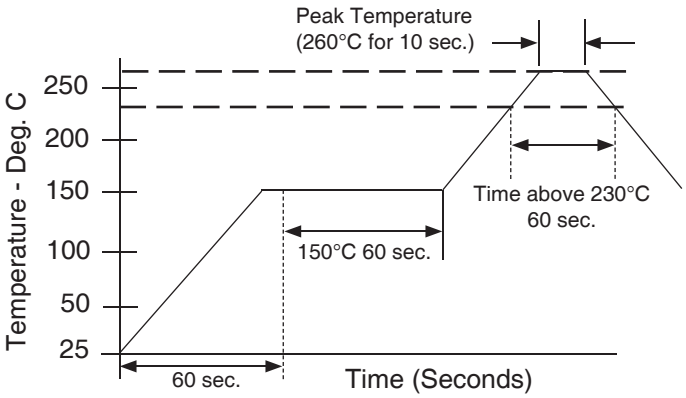
DIMENSIONS (mm)

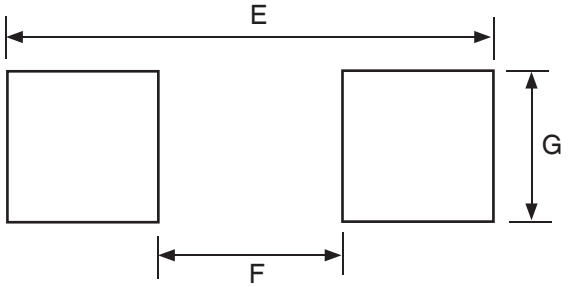


LAND PATTERN DIMENSIONS (mm)

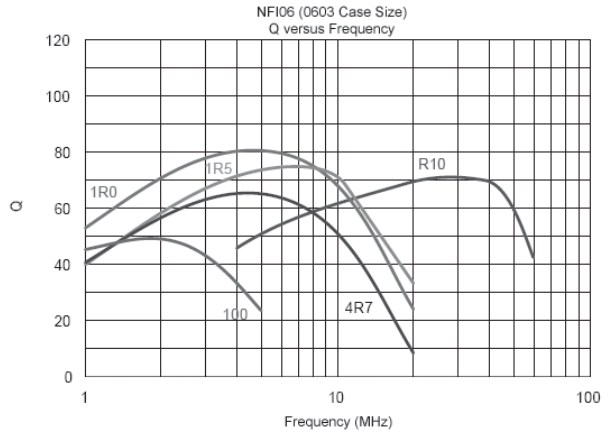
Case Size	E	F	G
0603	2.6	0.6	0.8
0805	3	1	1
1206	4.4	2.2	1.4

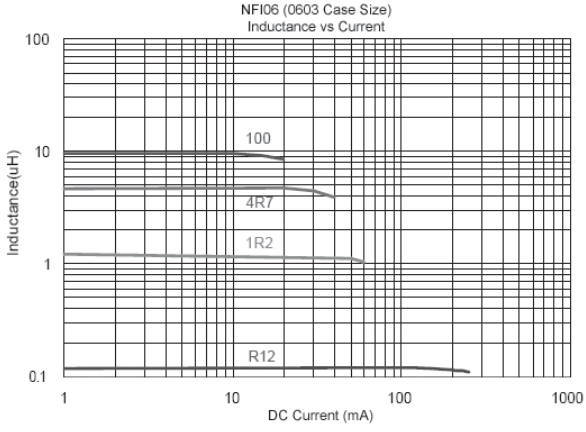
RECOMMENDED REFLOW SOLDERING PROFILE





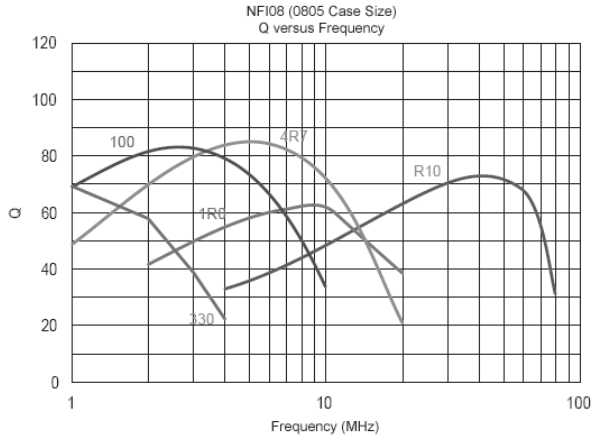
NFI06 (1.6mm X 0.8mm)							
EIA Size	NIC P/N	Inductance (µH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
0603	NFI06_47NTRF	0.047	10	50	0.30	50	260
	NFI06_68NTRF	0.068			0.30	50	250
	NFI06_82NTRF	0.082			0.30	50	245
	NFI06_R10TRF	0.1	15	25	0.50	50	240
	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		4	1.55	15	22
	NFI06_6R8TRF	6.8			1.70	15	20
	NFI06_8R2TRF	8.2			2.10	15	18
	NFI06_100TRF	10		2	2.55	15	17

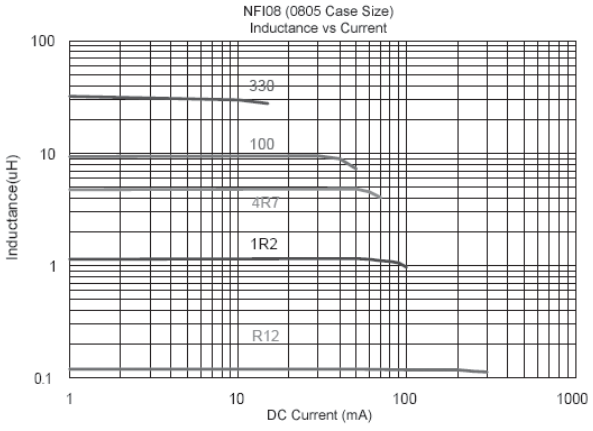




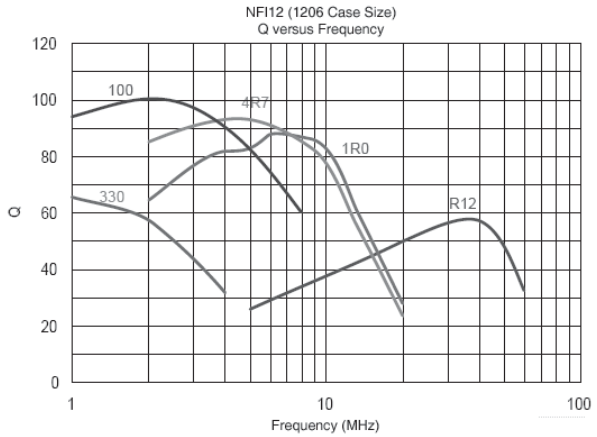
NFI08 (2.0mm X 1.25mm)							
EIA Size	NIC P/N	Inductance (µH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
0805	NFI08_47NTRF	0.047	15	50	0.20	300	320
	NFI08_68NTRF	0.068			0.20	300	280
	NFI08_82NTRF	0.082			0.20	300	255
	NFI08_R10TRF	0.1	20	25	0.30	250	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			0.55	250	145
	NFI08_R39TRF	0.39	25		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*		4	0.90	15	32
	NFI08_6R8TRF	6.8*			1.00	15	29
	NFI08_8R2TRF	8.2*			1.10	15	26
	NFI08_100TRF	10*		2	1.15	15	24
	NFI08_120TRF	12*			1.25	15	22
	NFI08_150TRF	15*	30	1	0.80	5	19
	NFI08_180TRF	18*			0.90	5	18
	NFI08_220TRF	22*			1.10	5	16
	NFI08_270TRF	27*			1.15	5	14
	NFI08_330TRF	33*		0.4	1.25	5	13

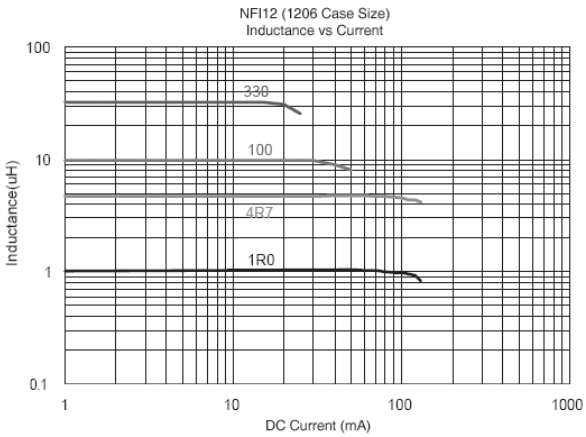
*Note: These values have a maximum thickness of 1.45mm





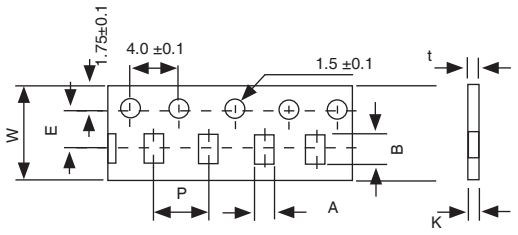
NFI12 (3.2mm X 1.6mm)							
EIA Size	NIC P/N	Inductance (µH)	Q Min.	L & Q Test Frequency (MHz)	DC Resistance Max. (Ω)	DC Current Max. (mA)	SRF Min. (MHz)
1206	NFI12_47NTRF	0.047	20	50	0.15	300	320
	NFI12_68NTRF	0.068			0.25	300	280
	NFI12_R10TRF	0.10		25.2	0.25	250	235
	NFI12_R12TRF	0.12			0.30	250	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	135
	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	75
	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	25	32
	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	35	1	0.70	5	19
	NFI12_180TRF	18			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	13





PRESSED PAPER CARRIER TAPE DIMENSIONS (mm)

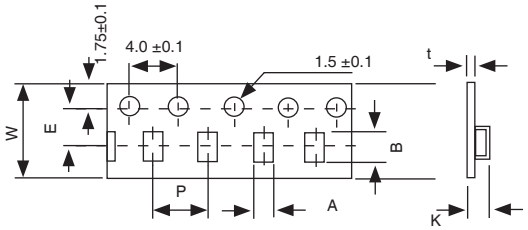
Size	B(mm)	A(mm)	K(mm)	E(mm)	P(mm)	t(mm)	W
NFI06	1.85±0.05	1.05±0.05	0.95±0.05	3.5±0.05	4.0±0.10	0.95±0.05	8.0±0.10
NFI08	2.30±0.05	1.50±0.05	0.95±0.05				



EMBOSSED PLASTIC CARRIER TAPE DIMENSIONS (mm)

Size	B(mm)	A(mm)	K(mm)	E(mm)	P(mm)	t(mm)	W
NFI08*	2.35±0.10	1.50±0.10	1.45±0.10	3.5±0.05	4.0±0.10	0.22±0.05	8.0±0.10
NFI12	3.50±0.10	1.88±0.10	1.27±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
NFI12							3,000

