

FEATURES

- ULTRA HIGH CURRENT (UP TO 30 AMPS)
- SURFACE MOUNTABLE CONSTRUCTION
- INDUCTANCE VALUES UP TO 15 μ H)
- TAPED AND REELED FOR AUTOMATIC INSERTION
- FOR USE IN DC/DC CONVERTERS, STEPDOWN CONVERTERS

**RoHS
Compliant**
includes all homogeneous materials

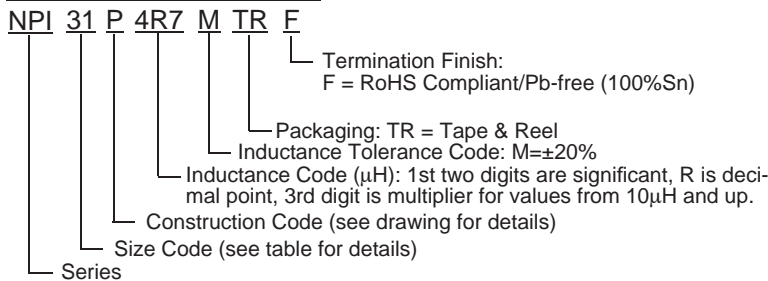
*See Part Number System for Details



CHARACTERISTICS

Case Size	NPI31P	NPI52P
Inductance Range	0.33 ~ 10 μ H	0.78 ~ 15 μ H
Temperature Range	-40°C ~ +85°C	
Temperature Rise at I _{rms}	40°C max.	
Inductance Change at I _{sat}	-10% typical	
Inductance Tolerance	20% (M)	
Resistance to Solder Heat	260°C for 10 seconds	

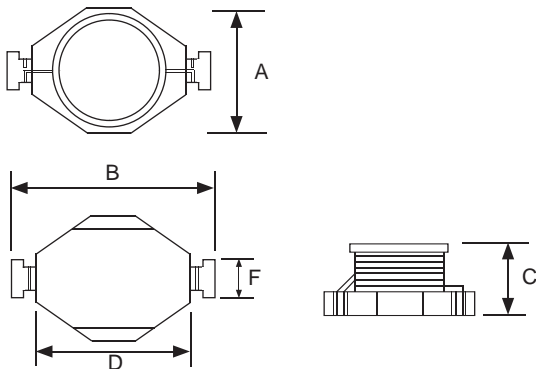
PART NUMBER SYSTEM



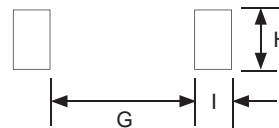
DIMENSIONS (mm)

Series	A	B	C	D	F	G (Ref)	H (Ref)	I (Ref)
NPI31P	9.91	13.50	6.35	9.50	3.17	8.36	5.00	1.80
NPI52P	16.26	22.35	8.00	14.25	8.69	14.35	8.64	3.18

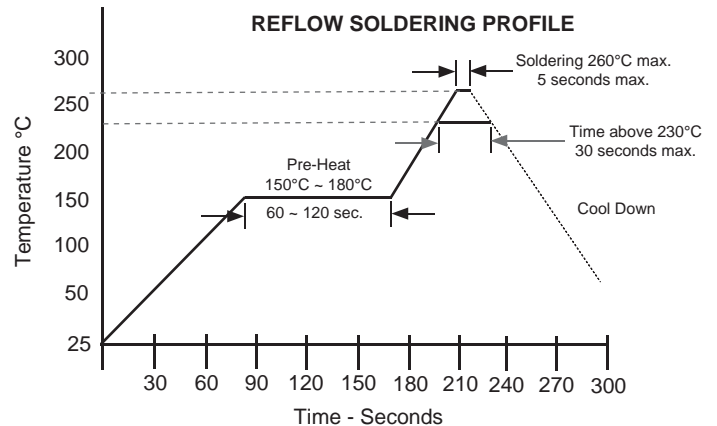
CONSTRUCTION



LAND PATTERN



REFLOW SOLDERING PROFILE



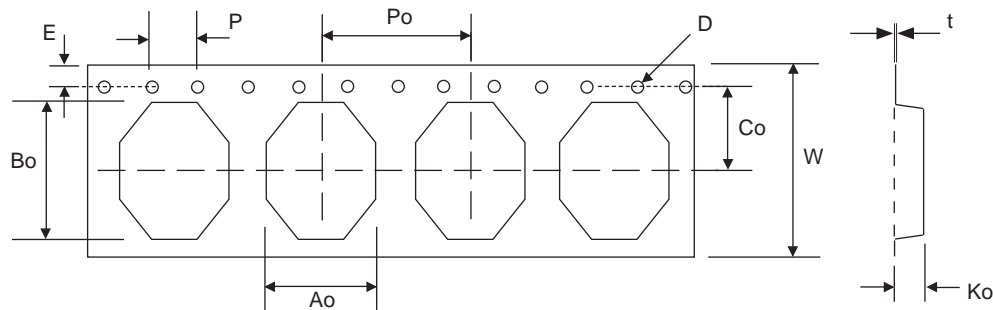
Part Number	STANDARD VALUES - CASE SIZE 31 (13.5 x 9.91 x 6.35mm)					
	Inductance Value (μH)	SRF (Typical) MHz	DC Resistance (Ω)	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPI31PR33MTRF	0.33 ± 20%	300	0.002	16	20	100KHz
NPI31PR68MTRF	0.68 ± 20%	200	0.005	12	13	
NPI31P1R0MTRF	1.0 ± 20%	100	0.012	10	11	
NPI31P1R5MTRF	1.5 ± 20%	90	0.008	9.0	9.0	
NPI31P2R2MTRF	2.2 ± 20%	90	0.011	7.4	7.8	
NPI31P2R7MTRF	2.7 ± 20%	65	0.012	6.6	7.0	
NPI31P3R3MTRF	3.3 ± 20%	65	0.014	5.9	6.4	
NPI31P4R7MTRF	4.7 ± 20%	45	0.018	4.8	5.4	
NPI31P5R6MTRF	5.6 ± 20%	40	0.022	4.6	5.0	
NPI31P6R8MTRF	6.8 ± 20%	36	0.027	4.4	4.6	
NPI31P8R2MTRF	8.2 ± 20%	28	0.032	4.0	4.0	
NPI31P100MTRF	10 ± 20%	25	0.038	3.9	3.8	

Maximum +40°C temperature rise at Irms. Typical -10% inductance change at Isat.

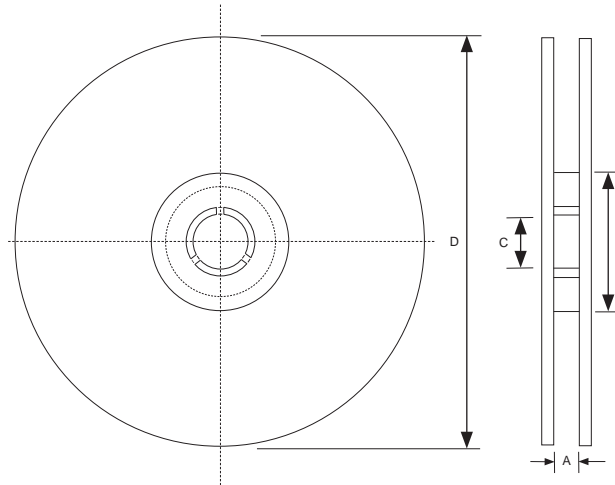
Part Number	STANDARD VALUES - CASE SIZE 52 (22.35 x 16.26 x 8.00mm)					
	Inductance Value (μH)	SRF (Typical) MHz	DC Resistance (Ω)	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPI52PR78MTRF	0.78 ± 20%	156	0.0026	15	30	100KHz
NPI52P1R5MTRF	1.5 ± 20%	100	0.0040	15	25	
NPI52P2R2MTRF	2.2 ± 20%	60	0.0100	12	20	
NPI52P3R3MTRF	3.3 ± 20%	55	0.0140	10	17	
NPI52P3R9MTRF	3.9 ± 20%	35	0.0170	9.0	15	
NPI52P4R7MTRF	4.7 ± 20%	35	0.0260	8.4	13	
NPI52P6R0MTRF	6.0 ± 20%	35	0.0320	7.5	12	
NPI52P7R8MTRF	7.8 ± 20%	28	0.0180	7.5	11	
NPI52P100MTRF	10 ± 20%	28	0.0260	6.0	10	
NPI52P150MTRF	15 ± 20%	20	0.0320	4.4	8.0	

Maximum +40°C temperature rise at Irms. Typical -10% inductance change at Isat.

Case Size	TAPING DIMENSIONS (mm)									
	Ao ± 0.1	Bo ± 0.1	Co ± 0.1	D + 0.1/-0	E + 0.1/-0	Ko ± 0.1	P ± 0.1	Po ± 0.1	W ± 0.3	t ± 0.05
NPI31P	10.0	13.6	11.5	1.5	1.75	6.5	4.0	16.0	24	0.4
NPI52P	15.7	23.0	14.2			8.2		20.0	32	



Tape Width	REEL DIMENSIONS (mm)			
	A(mm)	B(mm)	C(mm)	D(mm)
24mm	24.5±0.1	100 ± 1.0	13.0 ± 0.5	330
32mm	32.5±0.1			



Size	REEL QUANTITY PER CASE SIZE	
	NPI31P	NPI52P
Quantity per reel	600	250
Tape Width	24mm	32mm