

### FEATURES

- SHIELDED POWER INDUCTOR
- SMALL SIZE WITH CURRENT RATINGS TO 13.5 AMPS
- SURFACE MOUNTABLE CONSTRUCTION
- HIGH INDUCTANCE (UP TO 1,000 $\mu$ H)
- TAPED AND REELED FOR AUTOMATIC INSERTION
- FOR USE IN DC/DC CONVERTERS

**RoHS Compliant**  
includes all homogeneous materials

\*See Part Number System for Details

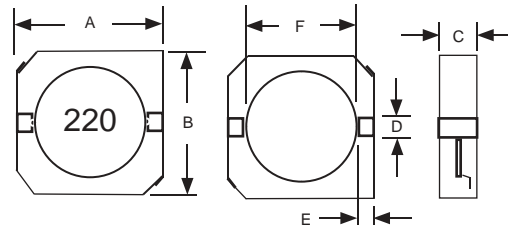


### CHARACTERISTICS

Case Size	NPIS104F	NPIS105F
Inductance Range	1.5 ~ 330 $\mu$ H	0.8 ~ 1,000 $\mu$ H
Temperature Range	-20°C ~ +125°C	
Temperature Rise at IDC	+40°C max.	
Inductance Change at IDC	-30% typical	
Inductance Tolerance	$\pm$ 5%(J), $\pm$ 10%(K), $\pm$ 20% (M), $\pm$ 25%(N) and $\pm$ 30%(Y)	
Resistance to Solder Heat	260°C for 10 seconds	

### DIMENSIONS (mm)

Series	A	B	C	D	E	F
NPIS104F	10.2 $\pm$ 0.3	10.1 $\pm$ 0.3	4.0 max	3.0 ref	1.2 $\pm$ 0.15	7.7 $\pm$ 0.3
NPIS105F			5.0 max			

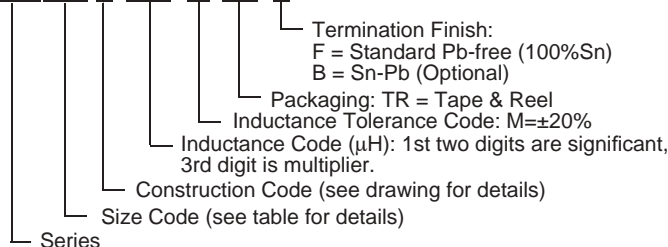


Part Number	STANDARD VALUES - CASE SIZE 104 (10.2 x 10.1 x 4.0mm)					Test Frequency
	Inductance Value ( $\mu$ H)	DC Resistance (m $\Omega$ )	DC Current Isat (Amps)	DC Current Irms (Amps)		
NPIS104F1R5YTRF	1.5 $\pm$ 30%	8.1	10.00	6.50	100KHz	
NPIS104F2R5YTRF	2.5 $\pm$ 30%	10.5	7.50	6.10		
NPIS104F3R8YTRF	3.8 $\pm$ 30%	13.0	6.00	5.50		
NPIS104F5R2YTRF	5.2 $\pm$ 30%	22.0	5.50	5.40		
NPIS104F7R0YTRF	7.0 $\pm$ 30%	27.0	4.80	4.50		
NPIS104F100MTRF	10 $\pm$ 20%	40.0	4.40	3.80		
NPIS104F150MTRF	15 $\pm$ 20%	80.0	3.60	3.10		
NPIS104F220MTRF	22 $\pm$ 20%	73.0	2.90	2.50		
NPIS104F330MTRF	33 $\pm$ 20%	93.0	2.30	2.20		
NPIS104F470MTRF	47 $\pm$ 20%	128.0	2.10	1.90		
NPIS104F680MTRF	68 $\pm$ 20%	213.0	1.50	1.42		
NPIS104F101MTRF	100 $\pm$ 20%	304.0	1.35	1.25		
NPIS104F151MTRF	150 $\pm$ 20%	506.0	1.15	0.85		
NPIS104F221MTRF	220 $\pm$ 20%	756.0	0.92	0.70		
NPIS104F331MTRF	330 $\pm$ 20%	1090.0	0.70	0.52		

Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat.

### PART NUMBER SYSTEM

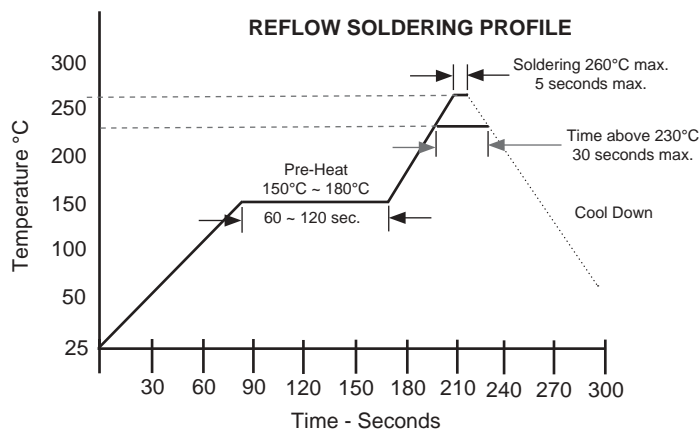
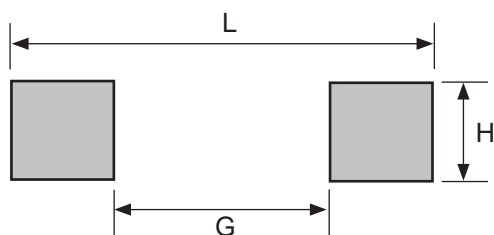
NPIS104 F 151 M TR F



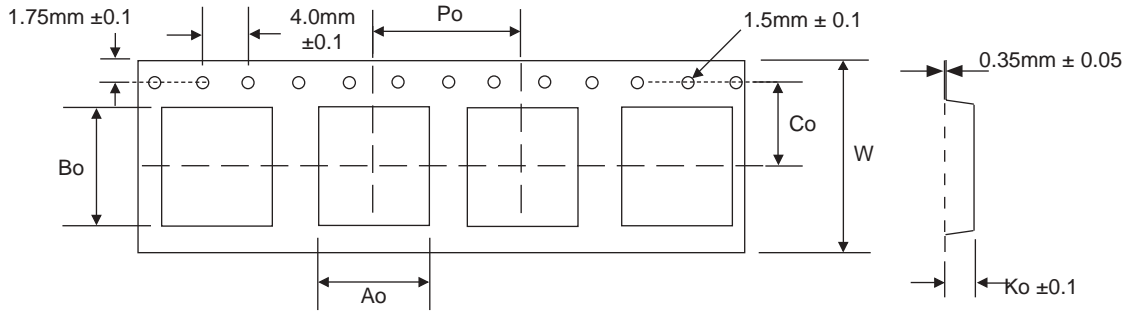
Part Number	STANDARD VALUES - CASE SIZE 105 (10.2 x 10.1 x 5.0mm)				
	Inductance Value (μH)	DC Resistance (mΩ)	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIS105FR80YTRF	0.8 ± 30%	4.3	9.50	13.50	100KHz
NPIS105F1R5YTRF	1.5 ± 30%	5.8	8.30	10.5	
NPIS105F2R2YTRF	2.2 ± 30%	7.2	7.50	9.25	
NPIS105F3R3YTRF	3.3 ± 30%	10.4	6.50	7.80	
NPIS105F4R7YTRF	4.7 ± 30%	12.3	6.10	6.40	
NPIS105F6R8YTRF	6.8 ± 30%	18.0	5.40	5.40	
NPIS105F8R2YTRF	8.2 ± 30%	20.0	5.00	4.85	
NPIS105F100MTRF	10 ± 20%	26.0	4.50	4.45	
NPIS105F120MTRF	12 ± 20%	33.0	3.80	4.00	
NPIS105F150MTRF	15 ± 20%	41.0	3.40	3.60	
NPIS105F180MTRF	18 ± 20%	46.0	3.10	3.20	
NPIS105F220MTRF	22 ± 20%	61.0	2.90	2.95	
NPIS105F270MTRF	27 ± 20%	69.0	2.60	2.70	
NPIS105F330MTRF	33 ± 20%	84.0	2.50	2.40	
NPIS105F390MTRF	39 ± 20%	106.0	2.25	2.30	
NPIS105F470MTRF	47 ± 20%	130.0	2.00	2.00	
NPIS105F560MTRF	56 ± 20%	149.0	1.90	1.90	
NPIS105F680MTRF	68 ± 20%	201.0	1.60	1.65	
NPIS105F820MTRF	82 ± 20%	227.0	1.45	1.50	
NPIS105F101MTRF	100 ± 20%	253.0	1.35	1.35	
NPIS105F121MTRF	120 ± 20%	303.0	1.18	1.28	
NPIS105F151MTRF	150 ± 20%	370.0	1.10	1.12	
NPIS105F181MTRF	180 ± 20%	419.0	1.00	1.04	
NPIS105F221MTRF	220 ± 20%	500.0	0.94	0.94	
NPIS105F331MTRF	330 ± 20%	812.0	0.73	0.75	
NPIS105F391MTRF	390 ± 20%	953.0	0.70	0.70	
NPIS105F471MTRF	470 ± 20%	1289.0	0.54	0.60	
NPIS105F561MTRF	560 ± 20%	1430.0	0.52	0.54	
NPIS105F681MTRF	680 ± 20%	1599.0	0.51	0.52	
NPIS105F821MTRF	820 ± 20%	1768.0	0.48	0.50	
NPIS105F102MTRF	1,000 ± 20%	1989.0	0.42	0.48	

Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat.

Series	L	G	H
NPIS104F	10.5	7.3	3.2
NPIS105F			



Case Size	TAPING DIMENSIONS (mm)						
	Ao	Bo	Ko	Co	W	Po	Qty/Reel
NPIS104F	10.65	10.65	4.3	11.5	24.0	16.0	1,000
NPIS105F			5.5				750



Tape Width	REEL DIMENSIONS (mm)			
	A(mm)	B(mm)	C(mm)	D(mm)
16mm	$26.0 +0$	$100 -0$	$13 \pm 0.5$	330

