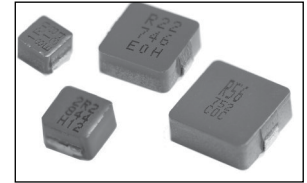


## FEATURES

- SHIELDED POWER INDUCTOR
- MOLDED METAL COMPOSITE CONSTRUCTION
- HIGH SATURATION CURRENT (~ 60A)
- HIGH EFFICIENCY (2X IMPROVEMENT OVER FERRITE CORE INDUCTORS)
- LOW PROFILES

**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details

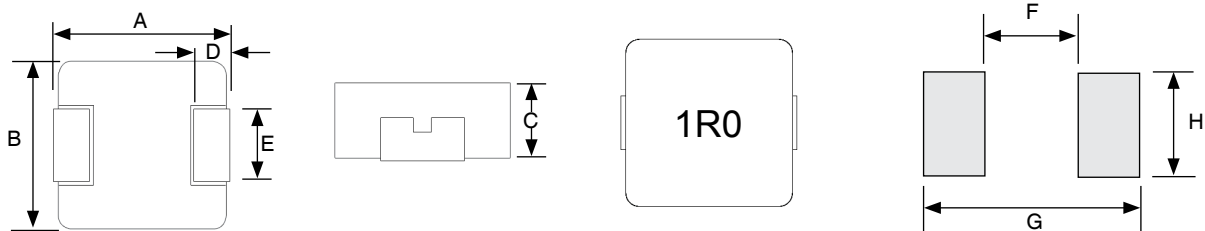


## CHARACTERISTICS

Case Code	NPIM41P	NPIM42P	NPIM50P	NPIM51P	NPIM58P
Inductance Range (μH)	0.1 ~ 10	0.1 ~ 15	0.1 ~ 10	0.33 ~ 10	0.33 ~ 10
Case Code	NPIM52P	NPIM53P	NPIM70P	NPIM71P	NPIM78P
Inductance Range (μH)	0.33 ~ 10	0.33 ~ 10	0.22 ~ 10	0.22 ~ 10	0.33 ~ 10
Case Code	NPIM72P	NPIM73P	NPIM74P	NPIM104P	
Inductance Range (μH)	0.1 ~ 10	0.33 ~ 10	0.22 ~ 22	0.22 ~ 33	
Operating Temperature Range (Ambient + Self-Heating)	-40°C ~ +125°C				
Temperature Rise at Irms	+40°C				
Inductance Change at Isat	-20%				
Inductance Tolerance	±20% (M), ±30% (Y)				
Resistance to Solder Heat	260°C ±5°C for 10 seconds				

## DIMENSIONS (mm)

Series	A	B	C	D	E	F	G	H
NPIM41P	4.45 ± 0.25	4.06 ± 0.25	1.0 ± 0.2	0.76 ± 0.30	2.0 ± 0.20	2.2	5.2	2.3
NPIM42P	4.45 ± 0.25	4.06 ± 0.25	1.8 ± 0.2	0.76 ± 0.30	2.0 ± 0.20	2.2	5.2	2.4
NPIM50P	5.7 ± 0.3	5.2 ± 0.2	1.0 ± 0.2	1.1 ± 0.3	2.5 ± 0.3	2.2	6.2	2.8
NPIM51P	5.7 ± 0.3	5.2 ± 0.2	1.3 ± 0.2	1.1 ± 0.3	2.5 ± 0.3	2.2	6.2	2.8
NPIM58P	5.7 ± 0.3	5.2 ± 0.2	1.6 ± 0.2	1.1 ± 0.3	2.5 ± 0.3	2.2	6.2	2.8
NPIM52P	5.7 ± 0.3	5.2 ± 0.2	1.8 ± 0.2	1.1 ± 0.3	2.5 ± 0.3	2.2	6.2	2.8
NPIM53P	5.7 ± 0.3	5.2 ± 0.2	2.8 ± 0.2	1.1 ± 0.3	1.5 ± 0.2	2.5	6.2	1.8
NPIM70P	7.0 ± 0.3	6.6 ± 0.3	1.0 ± 0.2	1.8 ± 0.3	2.5 ± 0.3	2.5	7.7	3.0
NPIM71P	7.0 ± 0.3	6.6 ± 0.3	1.3 ± 0.2	1.8 ± 0.3	3.0 ± 0.3	2.5	7.7	3.5
NPIM78P	7.0 ± 0.3	6.6 ± 0.3	1.6 ± 0.2	1.8 ± 0.3	3.0 ± 0.3	2.5	7.7	3.5
NPIM72P	7.0 ± 0.3	6.6 ± 0.3	1.8 ± 0.2	1.8 ± 0.3	3.0 ± 0.3	2.5	7.7	3.5
NPIM73P	7.0 ± 0.3	6.6 ± 0.3	2.2 ± 0.2	1.8 ± 0.3	3.0 ± 0.3	2.5	7.7	3.5
NPIM74P	7.3 ± 0.3	6.6 ± 0.3	2.8 ± 0.2	1.8 ± 0.3	3.0 ± 0.3	2.5	8.4	3.5
NPIM104P	11.0 ± 0.5	10.0 ± 0.3	3.8 ± 0.2	2.3 ± 0.3	3.0 ± 0.3	5.4	13.6	3.5



**LAND PATTERN**



## NPIM41P Size

Part Number	STANDARD VALUES - CASE Size 41P (4.45 x 4.06 x 1)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM41PR10YTRF	0.10 ± 30%	4.3	5.5	11.5	25	100KHz
NPIM41PR22MTRF	0.22 ± 20%	6.6	8.0	8.5	20	
NPIM41PR47MTRF	0.47 ± 20%	18	20	6.0	6.5	
NPIM41P1R0MTRF	1.00 ± 20%	41	47	4.0	6.0	
NPIM41P1R5MTRF	1.50 ± 20%	55	63.3	3.0	4.0	
NPIM41P2R2MTRF	2.20 ± 20%	69.2	80	2.8	3.5	
NPIM41P3R3MTRF	3.30 ± 20%	84	97	2.3	3.0	
NPIM41P4R7MTRF	4.70 ± 20%	128	145	2.0	2.5	
NPIM41P5R6MTRF	5.60 ± 20%	180	208	1.7	2.3	
NPIM41P6R8MTRF	6.80 ± 20%	300	360	1.5	1.7	
NPIM41P8R2MTRF	8.20 ± 20%	313	376	1.4	1.6	
NPIM41P100MTRF	10.0 ± 20%	410	463	1.3	1.4	

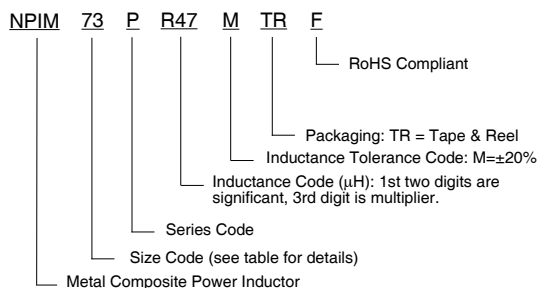
Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM42P Size

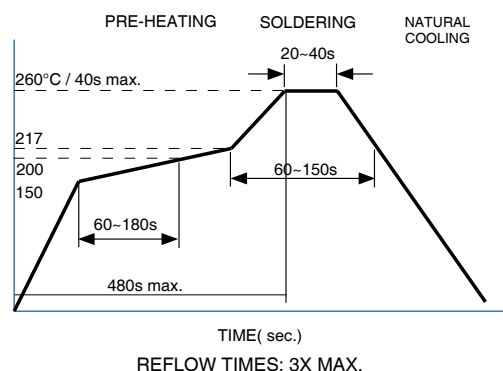
Part Number	STANDARD VALUES - CASE Size 42P (4.45 x 4.06 x 1.8)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM42PR10YTRF	0.10 ± 30%	3.2	4.0	12	35	100KHz
NPIM42PR22YTRF	0.22 ± 30%	6.6	7.3	13	24	
NPIM42PR33MTRF	0.33 ± 20%	7.8	8.6	10	18	
NPIM42PR47MTRF	0.47 ± 20%	11.2	14	8.0	12	
NPIM42PR56MTRF	0.56 ± 20%	13.5	16	7.3	10	
NPIM42PR68MTRF	0.68 ± 20%	16	19	7.0	10	
NPIM42P1R0MTRF	1.00 ± 20%	22	27	5.0	8.5	
NPIM42P1R2MTRF	1.20 ± 20%	25	30	4.8	7.8	
NPIM42P1R5MTRF	1.50 ± 20%	34.8	42	4.5	7.0	
NPIM42P2R2MTRF	2.20 ± 20%	51	61	4.0	6.0	
NPIM42P3R3MTRF	3.30 ± 20%	69	76	3.5	4.0	
NPIM42P4R7MTRF	4.70 ± 20%	95	105	2.6	3.5	
NPIM42P5R6MTRF	5.60 ± 20%	112	125	2.2	3.0	
NPIM42P6R8MTRF	6.80 ± 20%	150	172	2.1	2.8	
NPIM42P8R2MTRF	8.20 ± 20%	158	180	2.0	2.5	
NPIM42P100MTRF	10.0 ± 20%	215	243	1.8	2.3	
NPIM42P150MTRF	15.0 ± 20%	325	374	1.5	1.9	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

### PART NUMBER SYSTEM



### REFLOW SOLDERING PROFILE



## NPIM50P Size

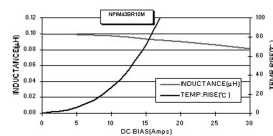
Part Number	STANDARD VALUES - CASE Size 50P (5.7 x 5.2 x 1.0)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM50PR10YTRF	0.10 ± 30%	4.3	5.2	14	14.5	100KHz
NPIM50PR22YTRF	0.22 ± 30%	5.5	6.7	10.7	14	
NPIM50PR33MTRF	0.33 ± 20%	7.8	9.4	8.5	13.5	
NPIM50PR36MTRF	0.36 ± 20%	10	11.5	8.0	13	
NPIM50PR47MTRF	0.47 ± 20%	13.6	15.8	7.0	11	
NPIM50PR68MTRF	0.68 ± 20%	21.5	24.5	6.0	9.0	
NPIM50P1R0MTRF	1.00 ± 20%	26	30	5.0	6.0	
NPIM50P1R2MTRF	1.20 ± 20%	33	40	4.5	5.5	
NPIM50P1R5MTRF	1.50 ± 20%	38	44	4.0	5.0	
NPIM50P2R2MTRF	2.20 ± 20%	65	75	3.5	4.0	
NPIM50P3R3MTRF	3.30 ± 20%	75	86	3.0	3.8	
NPIM50P4R7MTRF	4.70 ± 20%	100	115	2.5	3.2	
NPIM50P5R6MTRF	5.60 ± 20%	175	201	2.4	3.2	
NPIM50P6R8MTRF	6.80 ± 20%	193	222	2.0	3.0	
NPIM50P8R2MTRF	8.20 ± 20%	327	378	1.7	2.8	
NPIM50P100MTRF	10.0 ± 20%	335	385	1.5	1.8	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM51P Size

Part Number	STANDARD VALUES - CASE Size 51P (5.7 x 5.2 x 1.3)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM51PR33MTRF	0.33 ± 20%	8.5	9.8	9.0	16	100KHz
NPIM51PR47MTRF	0.47 ± 20%	12	13.8	8.0	15	
NPIM51PR68MTRF	0.68 ± 20%	14	16.2	7.0	13	
NPIM51P1R0MTRF	1.00 ± 20%	22	25.3	6.0	9.0	
NPIM51P1R5MTRF	1.50 ± 20%	39	45	4.5	7.0	
NPIM51P2R2MTRF	2.20 ± 20%	45	52	4.0	6.0	
NPIM51P3R3MTRF	3.30 ± 20%	78	90	3.2	4.5	
NPIM51P4R7MTRF	4.70 ± 20%	103	118	2.7	4.0	
NPIM51P5R6MTRF	5.60 ± 20%	126	152	2.4	3.2	
NPIM51P6R8MTRF	6.80 ± 20%	142	171	2.3	3.0	
NPIM51P8R2MTRF	8.20 ± 20%	175	210	2.1	2.6	
NPIM51P100MTRF	10.0 ± 20%	210	235	2.0	2.3	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat



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## NPIM58P Size

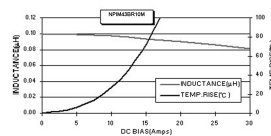
Part Number	STANDARD VALUES - CASE Size 58P (5.7 x 5.2 x 1.6)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM58PR33MTRF	0.33 ± 20%	7.5	8.6	11	15	100KHz
NPIM58PR47MTRF	0.47 ± 20%	9.8	11.3	10	14	
NPIM58PR68MTRF	0.68 ± 20%	12.4	14.3	9	13	
NPIM58P1R0MTRF	1.0 ± 20%	18.2	21	6.8	10	
NPIM58P1R5MTRF	1.5 ± 20%	26	30	6	9	
NPIM58P2R2MTRF	2.2 ± 20%	42	48.3	4.5	7.5	
NPIM58P3R3MTRF	3.3 ± 20%	60	69	3.5	5	
NPIM58P4R7MTRF	4.7 ± 20%	85	98	3.0	4.5	
NPIM58P5R6MTRF	5.6 ± 20%	110	127	2.5	4.0	
NPIM58P6R8MTRF	6.8 ± 20%	118	137	2.4	3.5	
NPIM58P8R2MTRF	8.2 ± 20%	143	165	2.3	3	
NPIM58P100MTRF	10 ± 20%	165	190	2.3	2.8	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM52P Size

Part Number	STANDARD VALUES - CASE Size 52P (5.7 x 5.2 x 1.8)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM52PR33MTRF	0.33 ± 20%	6.3	7.3	12	21.3	100KHz
NPIM52PR47MTRF	0.47 ± 20%	7.3	8.6	11.5	18	
NPIM52PR68MTRF	0.68 ± 20%	11	12.4	10	12.8	
NPIM52P1R0MTRF	1.00 ± 20%	17.5	20	7.0	13.7	
NPIM52P1R2MTRF	1.20 ± 20%	23	28	6.2	11	
NPIM52P1R5MTRF	1.50 ± 20%	26.5	30.5	5.5	9.8	
NPIM52P2R2MTRF	2.20 ± 20%	42	50	4.2	9	
NPIM52P3R3MTRF	3.30 ± 20%	66	76	3.3	7.3	
NPIM52P4R7MTRF	4.70 ± 20%	103	116	2.8	5.0	
NPIM52P5R6MTRF	5.60 ± 20%	112	122	2.5	4.0	
NPIM52P6R8MTRF	6.80 ± 20%	130	150	2.4	3.8	
NPIM52P8R2MTRF	8.2 ± 20%	148	171	2.3	3.5	
NPIM52P100MTRF	10 ± 20%	180	199	2.3	3.4	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat



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## NPIM53P Size

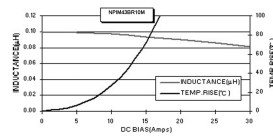
Part Number	STANDARD VALUES - CASE Size 53P (5.7 x 5.2 x 2.8)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM53PR33MTRF	0.33 ± 20%	4.3	5.0	14	18	100KHz
NPIM53PR47MTRF	0.47 ± 20%	6.4	7.4	12	16	
NPIM53PR68MTRF	0.68 ± 20%	10	12	8.5	14	
NPIM53P1R0MTRF	1.00 ± 20%	13	14	7.0	11	
NPIM53P1R2MTRF	1.20 ± 20%	14	16	6.5	11	
NPIM53P1R5MTRF	1.50 ± 20%	16	25	6.0	10	
NPIM53P2R2MTRF	2.20 ± 20%	25	35	5.5	9.0	
NPIM53P3R3MTRF	3.30 ± 20%	32	38	5	8.0	
NPIM53P4R7MTRF	4.70 ± 20%	50	53	4.6	6.0	
NPIM53P5R6MTRF	5.60 ± 20%	55	63	4.25	4.5	
NPIM53P6R8MTRF	6.80 ± 20%	68	76.2	4.0	4.3	
NPIM53P100MTRF	10.0 ± 20%	110	128	2.75	3.5	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM70P Size

Part Number	STANDARD VALUES - CASE Size 70P (7 x 6.6 x 1.0)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM70PR22YTRF	0.22 ± 30%	6.5	7.5	11	19	100KHz
NPIM70PR33MTRF	0.33 ± 20%	9.0	10	9.5	16	
NPIM70PR47MTRF	0.47 ± 20%	13	17	8.5	12	
NPIM70PR68MTRF	0.68 ± 20%	17	19	7.0	9.0	
NPIM70P1R0MTRF	1.00 ± 20%	27	30	6.0	7.0	
NPIM70P1R2MTRF	1.20 ± 20%	31	36	5.0	6.8	
NPIM70P1R5MTRF	1.50 ± 20%	35	40	4.5	6.5	
NPIM70P2R2MTRF	2.20 ± 20%	53	61	4.0	5.0	
NPIM70P3R3MTRF	3.30 ± 20%	90	103	3.2	4	
NPIM70P4R7MTRF	4.70 ± 20%	130	150	2.5	3.8	
NPIM70P6R8MTRF	6.80 ± 20%	172	198	2.1	3	
NPIM70P100MTRF	10.0 ± 20%	280	290	1.8	2.5	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat



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## NPIM71P Size

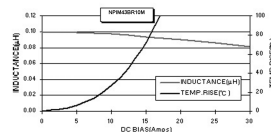
Part Number	STANDARD VALUES - CASE Size 71P (7 x 6.6 x 1.3)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM71PR22YTRF	0.22 ± 30%	4.3	5.2	14	22	100KHz
NPIM71PR33MTRF	0.33 ± 20%	6.6	7.6	11	18	
NPIM71PR47MTRF	0.47 ± 20%	9	10.3	9.5	16	
NPIM71PR68MTRF	0.68 ± 20%	13.8	15.2	7.5	15	
NPIM71P1R0MTRF	1.00 ± 20%	23	25.8	6.5	12	
NPIM71P1R2MTRF	1.20 ± 20%	29	34	5.6	10.5	
NPIM71P1R5MTRF	1.50 ± 20%	37	42.5	5.0	9.5	
NPIM71P2R2MTRF	2.20 ± 20%	48	55	4.5	6.5	
NPIM71P3R3MTRF	3.30 ± 20%	62	74	4.2	6.0	
NPIM71P4R7MTRF	4.70 ± 20%	96	111	3.8	5.0	
NPIM71P5R6MTRF	5.60 ± 20%	115	138	3.0	4.5	
NPIM71P6R8MTRF	6.80 ± 20%	128	148	2.6	3.5	
NPIM71P8R2MTRF	8.20 ± 20%	153	184	2.4	3.2	
NPIM71P100MTRF	10.0 ± 20%	180	216	2.3	2.8	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM78P Size

Part Number	STANDARD VALUES - CASE Size 78P (7 x 6.6 x 1.6)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM78PR33MTRF	0.33 ± 20%	4.8	5.8	14	22	100KHz
NPIM78PR47MTRF	0.47 ± 20%	6.4	7.4	12	18	
NPIM78PR68MTRF	0.68 ± 20%	9.5	11	10	17	
NPIM78PR82MTRF	0.82 ± 20%	11.5	14	8.5	15.5	
NPIM78P1R0MTRF	1.00 ± 20%	14.5	17	7.0	14	
NPIM78P1R2MTRF	1.20 ± 20%	20	24	6.5	13.5	
NPIM78P1R5MTRF	1.50 ± 20%	21	25.2	6.0	13	
NPIM78P2R2MTRF	2.20 ± 20%	31	35	6.0	11	
NPIM78P3R3MTRF	3.30 ± 20%	40	46	5.0	9.0	
NPIM78P4R7MTRF	4.70 ± 20%	68	76	4.0	7.0	
NPIM78P5R6MTRF	5.60 ± 20%	78	86	3.5	6.0	
NPIM78P6R8MTRF	6.80 ± 20%	93	104	3.0	5.5	
NPIM78P8R2MTRF	8.20 ± 20%	123	140	2.6	4.5	
NPIM78P100MTRF	10.0 ± 20%	143	160	2.3	3.5	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat



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## NPIM72P Size

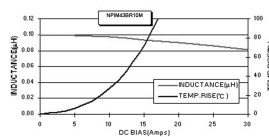
Part Number	STANDARD VALUES - CASE Size 72P (7 x 6.6 x 1.8)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM72PR10YTRF	0.10 ± 30%	2.0	2.4	21	40	100KHz
NPIM72PR20YTRF	0.20 ± 30%	2.5	3.0	18	35	
NPIM72PR33MTRF	0.33 ± 20%	4.5	5.0	14	25	
NPIM72PR47MTRF	0.47 ± 20%	7.1	8.3	11.7	20	
NPIM72PR68MTRF	0.68 ± 20%	8.3	10	10.5	16	
NPIM72P1R0MTRF	1.00 ± 20%	16.5	18	8.0	14	
NPIM72P1R5MTRF	1.50 ± 20%	23	27	7.0	12	
NPIM72P2R2MTRF	2.20 ± 20%	32	37	6.0	10	
NPIM72P3R3MTRF	3.30 ± 20%	43	48	5.0	8.0	
NPIM72P4R7MTRF	4.70 ± 20%	53	60	4.5	7.0	
NPIM72P5R6MTRF	5.60 ± 20%	59	68	4.0	6.0	
NPIM72P6R8MTRF	6.80 ± 20%	63	73	4.0	5.5	
NPIM72P8R2MTRF	8.20 ± 20%	101	116	3.2	5.0	
NPIM72P100MTRF	10.0 ± 20%	134	154	2.8	4.0	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM73P Size

Part Number	STANDARD VALUES - CASE Size 73P (7 x 6.6 x 2.2)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM73PR22MTRF	0.22 ± 20%	2.0	3.2	21	34	100KHz
NPIM73PR33MTRF	0.33 ± 20%	3.6	4.4	18	30	
NPIM73PR47MTRF	0.47 ± 20%	4.8	5.1	15	26	
NPIM73PR56MTRF	0.56 ± 20%	5.5	6.5	13	24	
NPIM73PR68MTRF	0.68 ± 20%	6.4	7.2	13	21	
NPIM73PR82MTRF	0.82 ± 20%	8	9.5	11	17	
NPIM73P1R0MTRF	1.00 ± 20%	10.5	13.5	11	16	
NPIM73P1R5MTRF	1.50 ± 20%	17	20	9.0	15	
NPIM73P2R2MTRF	2.20 ± 20%	23	28	7.0	14	
NPIM73P3R3MTRF	3.30 ± 20%	34	39	6.0	10	
NPIM73P4R7MTRF	4.70 ± 20%	41	50	5.5	9.0	
NPIM73P5R6MTRF	5.60 ± 20%	56	62	5.0	8.0	
NPIM73P6R8MTRF	6.80 ± 20%	65	72	4.0	7.0	
NPIM73P100MTRF	10.0 ± 20%	92	101	3.2	5.0	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat.



Contact NIC for  
NPIM\_P Performance Curves



## NPIM74P Size

Part Number	STANDARD VALUES - CASE Size 74P (7.3 x 6.6 x 2.8)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM74PR22YTRF	0.22 ± 30%	2.1	2.8	23	40	100KHz
NPIM74PR33MTRF	0.33 ± 20%	3.5	3.9	20	32	
NPIM74PR47MTRF	0.47 ± 20%	4	4.2	17.5	26	
NPIM74PR56MTRF	0.56 ± 20%	4.7	5	16.5	25.5	
NPIM74PR68MTRF	0.68 ± 20%	4.8	5.5	15.5	25	
NPIM74PR75MTRF	0.75 ± 20%	5.5	6.6	14.5	24.5	
NPIM74PR82MTRF	0.82 ± 20%	6.7	8	13	24	
NPIM74P1R0MTRF	1.00 ± 20%	8.3	10	11	22	
NPIM74P1R5MTRF	1.50 ± 20%	13	15	9	18	
NPIM74P1R8MTRF	1.80 ± 20%	14	17	8.5	16	
NPIM74P2R2MTRF	2.20 ± 20%	18	20	8	14	
NPIM74P2R5MTRF	2.50 ± 20%	20	22	7	13	
NPIM74P3R3MTRF	3.30 ± 20%	28	30	6	13.5	
NPIM74P4R7MTRF	4.70 ± 20%	37	40	5.5	10	
NPIM74P5R6MTRF	5.60 ± 20%	43	48	5	9	
NPIM74P6R8MTRF	6.80 ± 20%	54	60	4.5	8	
NPIM74P8R2MTRF	8.20 ± 20%	64	68	4	7.5	
NPIM74P100MTRF	10.0 ± 20%	75	85	3.5	6	
NPIM74P220MTRF	22.0 ± 20%	165	190	2	3.5	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat

## NPIM104P Size

Part Number	STANDARD VALUES - CASE Size 104P (11 x 10 x 3.8)					Test Frequency
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM104PR22MTRF	0.22 ± 20%	0.8	1.0	35	60	100KHz
NPIM104PR27MTRF	0.27 ± 20%	0.82	1.0	33	60	
NPIM104PR36MTRF	0.36 ± 20%	1.05	1.2	31	60	
NPIM104PR39MTRF	0.39 ± 20%	1.1	1.3	30	60	
NPIM104PR45MTRF	0.45 ± 20%	1.3	1.5	29	45	
NPIM104PR56MTRF	0.56 ± 20%	1.6	1.8	25	40	
NPIM104P1R0MTRF	1.00 ± 20%	3.0	3.3	18	36	
NPIM104P1R5MTRF	1.50 ± 20%	4.0	4.6	16	33	
NPIM104P2R2MTRF	2.20 ± 20%	6.5	7.0	12	27	
NPIM104P3R3MTRF	3.30 ± 20%	10.8	11.8	11	20	
NPIM104P4R7MTRF	4.70 ± 20%	15	15.5	10	17	
NPIM104P6R8MTRF	6.80 ± 20%	17.5	23.3	8.5	13.5	
NPIM104P8R2MTRF	8.20 ± 20%	20	22.5	8.0	12.5	
NPIM104P100MTRF	10.0 ± 20%	27	30	7.5	12	
NPIM104P150MTRF	15.0 ± 20%	40	45	6.25	10	
NPIM104P330MTRF	33.0 ± 20%	92	112	3.5	5.0	

Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat





### CARRIER TAPE & REEL DIMENSIONS (mm)

Series	Qty/Reel	Reel Diam.	Ao	Bo	Co	Po	Ko	t	W
NPIM41P	4,000	12.0 ± 0.5	4.4 ± 0.10	5.0 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	1.5 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM42P	3,000	12.0 ± 0.5	4.4 ± 0.10	5.0 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	2.3 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM50P	4,000	12.0 ± 0.5	5.5 ± 0.10	6.2 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	1.5 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM51P	3,500	12.0 ± 0.5	5.5 ± 0.10	6.2 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	1.8 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM58P	3,000	12.0 ± 0.5	5.5 ± 0.10	6.2 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	2.1 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM52P	3,000	12.0 ± 0.5	5.5 ± 0.10	6.2 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	2.3 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM53P	3,000	12.0 ± 0.5	5.5 ± 0.10	6.2 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	3.3 ± 0.10	0.35 ± 0.05	12.0 ± 0.30
NPIM70P	3,000	16.0 ± 0.5	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	1.5 ± 0.10	0.35 ± 0.05	16.0 ± 0.30
NPIM71P	2,000	16.0 ± 0.5	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	1.8 ± 0.10	0.35 ± 0.05	16.0 ± 0.30
NPIM78P	2,000	16.0 ± 0.5	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	2.1 ± 0.10	0.35 ± 0.05	16.0 ± 0.30
NPIM72P	1,500	16.0 ± 0.5	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	2.3 ± 0.10	0.35 ± 0.05	16.0 ± 0.30
NPIM73P	1,500	16.0 ± 0.5	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	2.7 ± 0.10	0.35 ± 0.05	16.0 ± 0.30
NPIM74P	1,000	16.0 ± 0.5	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	3.3 ± 0.10	0.35 ± 0.05	16.0 ± 0.30
NPIM104P	500	24.0 ± 0.5	10.4 ± 0.10	11.6 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	4.5 ± 0.10	0.35 ± 0.05	24.0 ± 0.30

