

FEATURES

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



CHARACTERISTICS

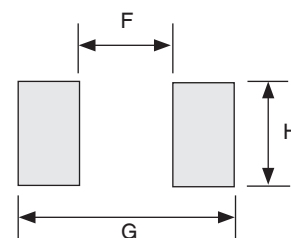
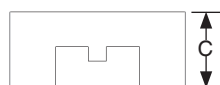
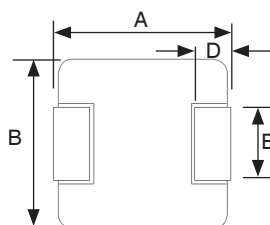
Case Code	73P	74P	104P
Inductance Range (μH)	0.47 ~ 6.8	0.22 ~ 22	0.22 ~ 10
Operating Temperature Range (Ambient + Self-Heating)	-40°C ~ +125°C		
Temperature Rise at Irms	+40°C		
Inductance Change at Isat	-20%		
Inductance Tolerance	±20%		
Resistance to Solder Heat	260°C ±5°C for 10 seconds		

**RoHS
Compliant**
includes all homogeneous materials

*See Part Number System for Details

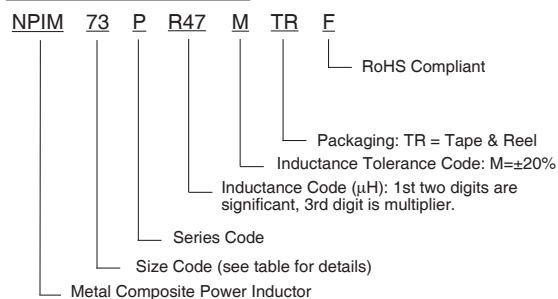
DIMENSIONS (mm)

Series	A	B	C	D	E	F	G	H
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



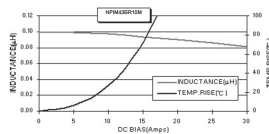
LAND PATTERN

PART NUMBER SYSTEM



Part Number	STANDARD VALUES - CASE SIZE 73P (7.0 X 6.6 X 2.2mm)					
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM73PR47MTRF	0.47 ± 20%	4.8	5.1	15	26	100KHz
NPIM73PR68MTRF	0.68 ± 20%	6.4	7.2	13	21	
NPIM73P1R0MTRF	1 ± 20%	10.5	13.5	11	16	
NPIM73P1R5MTRF	1.5 ± 20%	17	20	9	15	
NPIM73P2R2MTRF	2.2 ± 20%	23	28	7	14	
NPIM73P3R3MTRF	3.3 ± 20%	34	39	6	10	
NPIM73P4R7MTRF	4.7 ± 20%	41	50	5.5	9	
NPIM73P6R8MTRF	6.8 ± 20%	65	72	4	7	

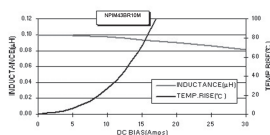
Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat.



Contact NIC for
NPIM73P Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 74P (7.3 X 6.6 X 2.8mm)					
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM74PR22MTRF	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	
NPIM74PR68MTRF	0.68 ± 20%	4.8	5.5	15.5	25	
NPIM74PR82MTRF	0.82 ± 20%	6.7	8	13	24	
NPIM74P1R0MTRF	1.0 ± 20%	8.3	10	11	22	
NPIM74P1R5MTRF	1.5 ± 20%	13	15	9	18	
NPIM74P1R8MTRF	1.8 ± 20%	14	17	8.5	16	
NPIM74P2R2MTRF	2.2 ± 20%	18	20	8	14	
NPIM74P2R5MTRF	2.5 ± 20%	20	22	7	13	
NPIM74P3R3MTRF	3.3 ± 20%	28	30	6	13.5	
NPIM74P4R7MTRF	4.7 ± 20%	37	40	5.5	10	
NPIM74P5R6MTRF	5.6 ± 20%	43	48	5	9	
NPIM74P6R8MTRF	6.8 ± 20%	54	60	4.5	8	
NPIM74P8R2MTRF	8.2 ± 20%	64	68	4	7.5	
NPIM74P100MTRF	10 ± 20%	75	85	3.5	6	
NPIM74P220MTRF	22 ± 20%	165	190	2	3.5	

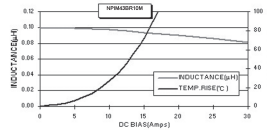
Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat



Contact NIC for
NPIM74P Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 104P (11.0 X 10.0 X 3.8mm)					
	Inductance Value (μH)	Typ. DCR (mΩ)	Max. DCR (mΩ)	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM104PR22MTRF	0.22 ± 20%	0.8	1	35	60	100KHz
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	1.0 ± 20%	3	3.3	18	36	
NPIM104P2R2MTRF	2.2 ± 20%	6.5	7	12	27	
NPIM104P3R3MTRF	3.3 ± 20%	10.8	11.8	11	20	
NPIM104P4R7MTRF	4.7 ± 20%	15	15.5	10	17	
NPIM104P6R8MTRF	6.8 ± 20%	17.5	23.3	8.5	13.5	
NPIM104P100MTRF	10 ± 20%	27	30	7.5	12	

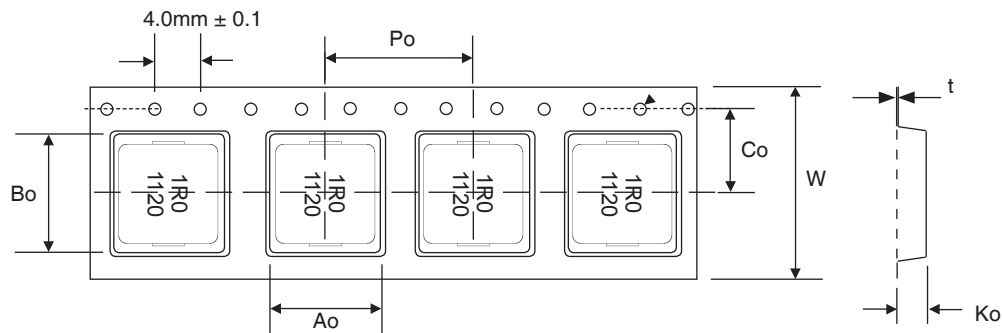
Maximum +40°C temperature rise at Irms. Typical -20% inductance change at Isat



Contact NIC for
NPIM104P Performance Curves

CARRIER TAPE DIMENSIONS (mm)

Series	Ao	Bo	Co	Po	Ko	t	W
NPIM73P	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	2.7 ± 0.1	0.35 ± 0.05	16.0 ± 0.30
NPIM74P	7.0 ± 0.10	7.7 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	3.3 ± 0.1	0.35 ± 0.05	16.0 ± 0.30
NPIM104P	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



REEL DIMENSIONS (mm)

Series	A	Qty/Reel
NPIM73P	16.0 ± 0.5	1,500
NPIM74P	16.0 ± 0.5	1,000
NPIM104P	24.5 ± 0.5	500

