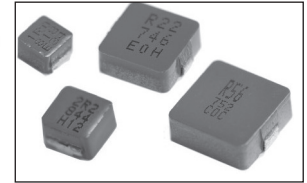


## FEATURES

- SHIELDED POWER INDUCTOR
- MOLDED METAL COMPOSITE CONSTRUCTION
- HIGH SATURATION CURRENT CHARACTERISTICS (~ 75A)
- HIGH EFFICIENCY (2X IMPROVEMENT OVER FERRITE CORE INDUCTORS)
- LOW PROFILE (1.2mm ~ 7.0mm)

Expanded Value Range

**RoHS  
Compliant**  
Includes all homogeneous materials



## CHARACTERISTICS (42B ~ 74B)

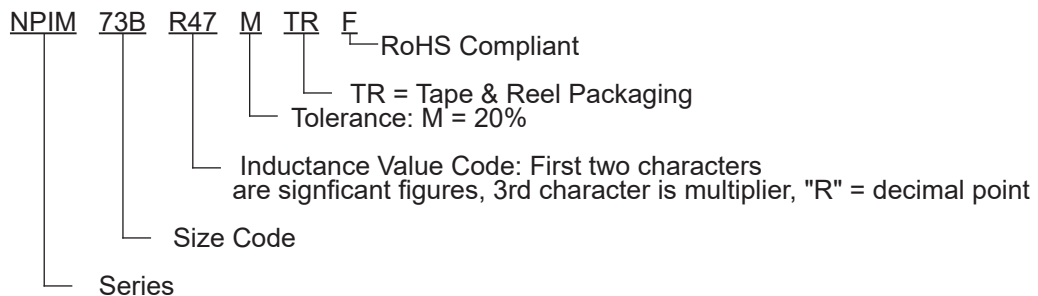
\*See Part Number System for Details

Case Code	41B	42B	51B	52B	53B	72B	73B	74B
Inductance Range (μH)	0.33 ~ 4.7	0.1 ~ 4.7	2.2 ~ 6.8	0.47 ~ 10	0.1 ~ 6.8	0.1 ~ 15	0.1 ~ 15	0.1 ~ 22
Ambient Operating Temperature Range	-55°C ~ +85°C							
Maximum Component Temperature (Ambient + Self-Heating)	+125°C							
Temperature Rise at Irms	+40°C							
Inductance Change at Isat	-30%							
Inductance Tolerance	±20%							
Resistance to Solder Heat	260°C ±5°C for 10 seconds							

## CHARACTERISTICS (75B ~ 105B)

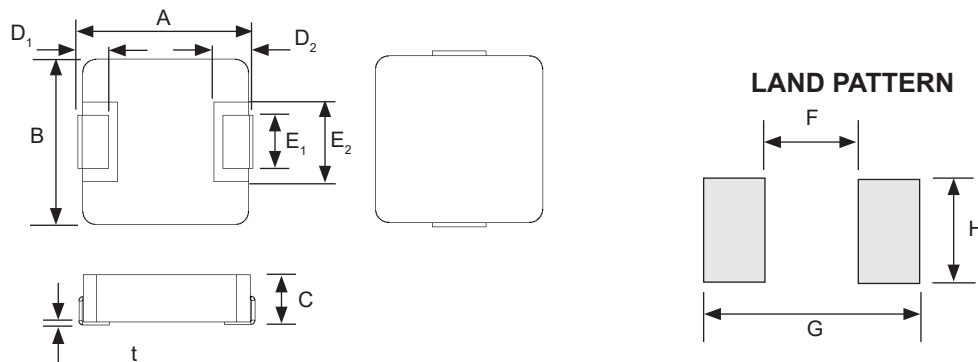
Case Code	75B	101B	103B	104B	105B	133B	135B	136B	187B
Inductance Range (μH)	0.13 ~ 22	0.68 ~ 4.7	0.22 ~ 22	0.15 ~ 68	1.0 ~ 6.8	0.22 ~ 3.3	0.36 ~ 47	8.2 ~ 150	1.5 ~ 68
Ambient Operating Temperature Range	-55°C ~ +85°C								
Maximum Component Temperature (Ambient + Self-Heating)	+125°C								
Temperature Rise at Irms	+40°C								
Inductance Change at Isat	-30%								
Inductance Tolerance	±20%								
Resistance to Solder Heat	260°C ±5°C for 10 seconds								

## PART NUMBER SYSTEM

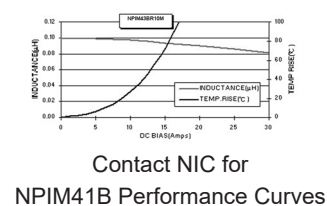


## DIMENSIONS (mm)

Series	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM41B	4.40 ± 0.35	4.2 ± 0.25	1.0 ± 0.2	0.8 ± 0.3	1.0 ± 0.1	2.0 ± 0.3	2.5 ± 0.2	0 ~ +0.15	2.2	5.2	2.5
NPIM42B	4.15 ± 0.35	4.0 ± 0.3	1.8 ± 0.2	0.8 ± 0.3	1.0 ± 0.1	1.5 ± 0.3	2.2 ± 0.2	0 ~ +0.15	2.2	5.2	2.5
NPIM51B	5.40 ± 0.35	5.2 ± 0.2	1.0 ± 0.2	0.81 ± 0.18	1.0 ± 0.1	2.5 ± 0.08	2.8 ± 0.08	0 ~ +0.15	2.2	6.0	2.5
NPIM52B	5.40 ± 0.35	5.2 ± 0.2	1.6 ± 0.2	1.0 ± 0.3	1.5 ± 0.1	2.0 ± 0.3	2.5 ± 0.2	0 ~ +0.15	2.2	6.0	2.5
NPIM53B	4.85 ± 0.35	4.7 ± 0.2	2.8 ± 0.2	1.0 ± 0.3	1.5 ± 0.1	1.5 ± 0.3	2.2 ± 0.2	0 ~ +0.15	3.0	7.0	2.5
NPIM72B	7.05 ± 0.35	6.6 ± 0.2	1.6 ± 0.2	1.6 ± 0.3	2.0 ± 0.1	3.0 ± 0.3	3.6 ± 0.2	0 ~ +0.15	3.7	8.4	3.5
NPIM73B	6.95 ± 0.35	6.6 ± 0.2	2.2 ± 0.2	1.6 ± 0.3	2.0 ± 0.1	3.0 ± 0.3	3.6 ± 0.2	0 ~ +0.15	3.7	8.4	3.5
NPIM74B	6.95 ± 0.35	6.6 ± 0.2	2.8 ± 0.2	1.6 ± 0.3	2.0 ± 0.1	3.0 ± 0.3	3.6 ± 0.2	0 ~ +0.15	3.7	8.4	3.5
NPIM75B	7.05 ± 0.35	6.6 ± 0.2	4.8 ± 0.2	1.6 ± 0.3	2.0 ± 0.1	3.0 ± 0.3	3.6 ± 0.2	0 ~ +0.15	3.7	8.4	3.5
NPIM101B	10.85 ± 0.35	10.0 ± 0.3	1.3 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	13.6	5.4	4.1
NPIM103B thru NPIM187B	See Individual Case Sizes Tables for These Case Sizes										



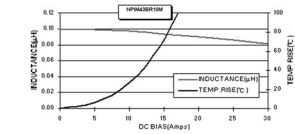
Part Number	STANDARD VALUES - CASE SIZE 41B ( 4.40 X 4.2 X 1.0mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current I <sub>rms</sub> (Amps)	DC Current I <sub>sat</sub> (Amps)	Test Frequency
NPIM41BR33MTRF	0.33	19	6.5	8.4	100KHz
NPIM41BR47MTRF	0.47	21	6.0	6.8	
NPIM41BR68MTRF	0.68	36	4.5	6.0	
NPIM41B1R0MTRF	1.0	47	4.2	5.2	
NPIM41B1R5MTRF	1.5	75	3.25	4.0	
NPIM41B2R2MTRF	2.2	83.5	2.75	3.5	
NPIM41B4R7MTRF	4.7	195	1.8	2.8	



Maximum +40°C temperature rise at I<sub>rms</sub>. Typical -30% inductance change at I<sub>sat</sub>. Additional values are available outside the standard offering above. Please contact NIC for more details.

Part Number	STANDARD VALUES - CASE SIZE 42B ( 4.15 X 4.0 X 1.8mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM42BR10MTRF	0.1	4.0	12	22	100KHz
NPIM42BR22MTRF	0.22	6.6	9.0	12.5	
NPIM42BR47MTRF	0.47	14	7.0	9.5	
NPIM42BR56MTRF	0.56	16	6.5	10	
NPIM42BR68MTRF	0.68	18	6.0	9.0	
NPIM42B1R0MTRF	1.0	27	4.5	7.0	
NPIM42B1R2MTRF	1.2	27	4.5	7.0	
NPIM42B1R5MTRF	1.5	46	4.0	6.0	
NPIM42B2R2MTRF	2.2	58	3.0	5.0	
NPIM42B3R3MTRF	3.3	87	2.5	4.0	
NPIM42B4R7MTRF	4.7	105	2.2	3.0	

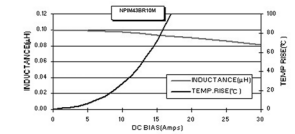
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM42B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 51B ( 5.4 X 5.2 X 1.0mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM51B2R2MTRF	2.2	76	3.5	4.0	100KHz
NPIM51B3R3MTRF	3.3	98	3.0	3.7	
NPIM51B4R7MTRF	4.7	163	2.3	3.4	
NPIM51B6R8MTRF	6.8	250	2.0	2.3	

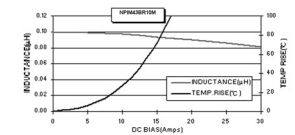
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM51B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 52B ( 5.4 X 5.2 X 1.6mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM52BR47MTRF	0.47	9	10.5	15.5	100KHz
NPIM52BR56MTRF	0.56	10	9.5	15	
NPIM52B1R0MTRF	1.0	17	8.0	9.0	
NPIM52B1R2MTRF	1.2	20	7.5	8.0	
NPIM52B2R2MTRF	2.2	35	5.0	6.5	
NPIM52B3R3MTRF	3.3	58	4.5	5.0	
NPIM52B4R7MTRF	4.7	85	3.5	4.0	
NPIM52B6R8MTRF	6.8	120	2.8	3.4	
NPIM52B8R2MTRF	8.2	145	2.6	3.1	
NPIM52B10MTRF	10	155	2.5	3.0	

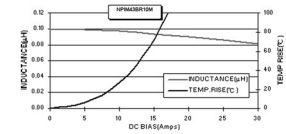
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM52B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 53B (4.85 X 4.7 X 2.8mm)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM53BR10MTRF	0.10	2.5	32	34	100KHz
NPIM53BR12MTRF	0.12	2.6	30	32	
NPIM53BR20MTRF	0.20	3.9	21	14.5	
NPIM53BR68MTRF	0.68	12	8.5	14	
NPIM53B1R0MTRF	1.0	14	7	11	
NPIM53B1R2MTRF	1.2	16	6.5	11	
NPIM53B1R5MTRF	1.5	20	6.0	10	
NPIM53B2R2MTRF	2.2	35	5.5	9.0	
NPIM53B3R3MTRF	3.3	38	5.0	7.0	
NPIM53B4R7MTRF	4.7	60	4.0	5.0	

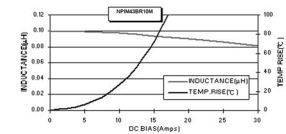
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM53B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 72B (7.05 X 6.6 X 1.6mm)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM72BR10MTRF	0.10	2.5	18	45	100KHz
NPIM72BR22MTRF	0.22	5.2	14	29	
NPIM72BR33MTRF	0.33	6.8	12	22	
NPIM72BR47MTRF	0.47	8.4	11	18	
NPIM72BR68MTRF	0.68	12.7	9.0	17	
NPIM72B1R0MTRF	1.0	17	7.0	14	
NPIM72B1R5MTRF	1.5	26	6.5	12	
NPIM72B2R0MTRF	2.0	32	6.0	13	
NPIM72B2R2MTRF	2.2	35	6.0	13	
NPIM72B3R3MTRF	3.3	60	3.5	10	
NPIM72B4R7MTRF	4.7	70	3.5	5.0	
NPIM72B6R8MTRF	6.8	110	2.8	3.5	
NPIM72B8R2MTRF	8.2	135	2.5	3.0	
NPIM72B100MTRF	10	155	2.3	2.5	
NPIM72B150MTRF	15	250	1.8	2.2	

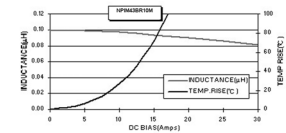
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM72B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 73B ( 6.95 X 6.6 X 2.2mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM73BR10MTRF	0.10	1.7	30	70	100KHz
NPIM73BR20MTRF	0.20	2.8	25	50	
NPIM73BR22MTRF	0.22	3.2	21	34	
NPIM73BR33MTRF	0.33	4.1	18	24.5	
NPIM73BR47MTRF	0.47	5.1	15	22	
NPIM73BR56MTRF	0.56	6.5	13	17	
NPIM73BR68MTRF	0.68	7.2	12	16	
NPIM73B1R0MTRF	1.0	13.5	9.0	16	
NPIM73B1R5MTRF	1.5	20	9.0	15	
NPIM73B2R2MTRF	2.2	28	7.0	14	
NPIM73B3R3MTRF	3.3	39	5.5	13	
NPIM73B4R7MTRF	4.7	50	5.0	10	
NPIM73B5R6MTRF	5.6	60	5.0	6.5	
NPIM73B6R8MTRF	6.8	70	4.0	6.0	
NPIM73B100MTRF	10	101	3.1	4.0	
NPIM73B150MTRF	15	160	2.5	3.3	

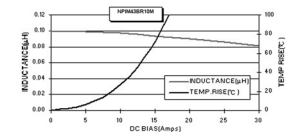
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM73B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 74B ( 6.95 X 6.6 X 2.8mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM74BR10MTRF	0.10	1.7	32.5	60	100KHz
NPIM74BR15MTRF	0.15	2.5	30	40	
NPIM74BR20MTRF	0.20	3.0	24	34	
NPIM74BR22MTRF	0.22	3.0	23	34	
NPIM74BR33MTRF	0.33	3.5	21	25	
NPIM74BR36MTRF	0.36	3.9	20	24	
NPIM74BR47MTRF	0.47	4.1	18	20	
NPIM74BR56MTRF	0.56	4.5	16.5	18	
NPIM74BR68MTRF	0.68	5.3	16	17	
NPIM74BR82MTRF	0.82	6.0	14	16	
NPIM74B1R0MTRF	1.0	7.4	12	15	
NPIM74B1R2MTRF	1.2	10	10	14	
NPIM74B1R5MTRF	1.5	12.1	10	14	
NPIM74B2R2MTRF	2.2	15	8.0	10	
NPIM74B3R3MTRF	3.3	22	6.5	9.5	
NPIM74B4R7MTRF	4.7	33	5.5	6.5	
NPIM74B5R6MTRF	5.6	42	5.5	6.0	
NPIM74B6R8MTRF	6.8	50	4.5	6.0	
NPIM74B8R2MTRF	8.2	60	4.5	6.0	
NPIM74B100MTRF	10	68	4.0	5.5	
NPIM74B220MTRF	22	200	2.3	3.0	

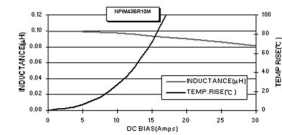
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM74B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 75B ( 7.05 X 6.6 X 4.8mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current I <sub>rms</sub> (Amps)	DC Current I <sub>sat</sub> (Amps)	Test Frequency
NPIM75BR13MTRF	0.13	1.2	42	48	100KHz
NPIM75BR22MTRF	0.22	1.3	30	35	
NPIM75BR36MTRF	0.36	3.1	21	25	
NPIM75BR40MTRF	0.40	3.5	20	23	
NPIM75BR47MTRF	0.47	3.75	20	21	
NPIM75BR56MTRF	0.56	3.6	20	18	
NPIM75BR68MTRF	0.68	4.2	18	16	
NPIM75BR82MTRF	0.82	4.9	16.5	17	
NPIM75B1R0MTRF	1.0	6.5	13	15	
NPIM75B1R2MTRF	1.2	7.5	12	13	
NPIM75B1R5MTRF	1.5	7.5	11	12	
NPIM75B2R2MTRF	2.2	12.5	10.5	12	
NPIM75B3R3MTRF	3.3	20.9	8.5	9.0	
NPIM75B4R7MTRF	4.7	25	6.5	7.0	
NPIM75B5R6MTRF	5.6	34.4	6.0	7.0	
NPIM75B6R8MTRF	6.8	41	5.5	6.0	
NPIM75B8R2MTRF	8.2	43	5.5	5.5	
NPIM75B100MTRF	10	55	4.5	5.3	
NPIM75B150MTRF	15	127	3.1	3.4	
NPIM75B220MTRF	22	190	2.6	2.8	

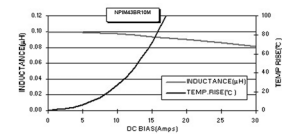
Maximum +40°C temperature rise at I<sub>rms</sub>. Typical -30% inductance change at I<sub>sat</sub>. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM75B Performance Curves

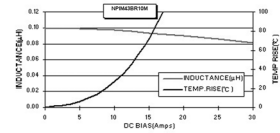
Part Number	STANDARD VALUES - CASE SIZE 101B ( 10.85 X 10.3 X 1.3mm)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current I <sub>rms</sub> (Amps)	DC Current I <sub>sat</sub> (Amps)	Test Frequency
NPIM101BR68MTRF	0.68	16	7.5	16	100KHz
NPIM101BR82MTRF	0.82	18	6.0	14	
NPIM101B1R0MTRF	1.0	21	5.5	12	

Maximum +40°C temperature rise at I<sub>rms</sub>. Typical -30% inductance change at I<sub>sat</sub>. Additional values are available outside the standard offering above. Please contact NIC for more details.



Contact NIC for NPIM101B Performance Curves

Part Number	STANDARD VALUES - CASE SIZE 103B (see size table below)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM103BR22MTRF	0.22	1.2	30	50	100KHz
NPIM103BR24MTRF	0.24	1.3	30	50	
NPIM103BR33MTRF	0.33	1.6	23	32	
NPIM103BR36MTRF	0.36	1.6	23	28	
NPIM103BR47MTRF	0.47	2.5	23	26	
NPIM103BR56MTRF	0.56	3	22	24	
NPIM103BR68MTRF	0.68	3.4	21	23	
NPIM103B1R0MTRF	1.0	6	15	21	
NPIM103B1R5MTRF	1.5	7.5	13.5	20	
NPIM103B2R2MTRF	2.2	9.0	13	16	
NPIM103B3R3MTRF	3.3	16	9.0	14	
NPIM103B4R7MTRF	4.7	22.5	7.0	13	
NPIM103B8R2MTRF	8.2	45	5.0	8.5	
NPIM103B100MTRF	10	55	5.0	7.5	
NPIM103B150MTRF	15	65	4.0	6.0	
NPIM103B220MTRF	22	99	3.0	5.0	

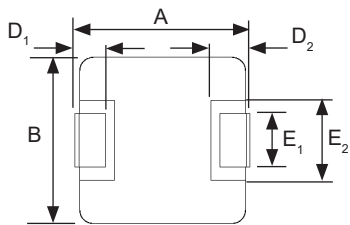


Contact NIC for NPIM103B Performance Curves

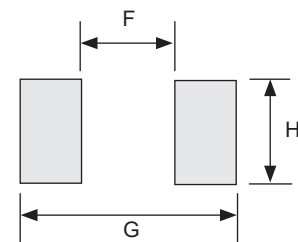
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM103B CASE AND LAND PATTERN DIMENSIONS

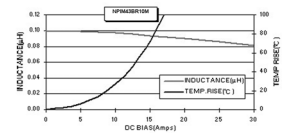
Series	Value	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM103B	R22 ~ R68	11.15 ± 0.35	10.0 ± 0.3	2.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	5.4	13.6	4.1
	R82 ~ 220	10.85 ± 0.35	10.0 ± 0.3	2.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	5.4	13.6	4.1



### LAND PATTERN



Part Number	STANDARD VALUES - CASE SIZE 104B (see size table below)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM104BR15MTRF	0.15	0.65	40	75	100KHz
NPIM104BR22MTRF	0.22	1.0	35	60	
NPIM104BR36MTRF	0.36	1.2	30	50	
NPIM104BR39MTRF	0.39	1.2	31	45	
NPIM104BR45MTRF	0.45	1.3	25	27	
NPIM104BR47MTRF	0.47	1.68	30	40	
NPIM104BR56MTRF	0.56	1.8	25	33	
NPIM104BR68MTRF	0.68	2.4	23	30	
NPIM104BR88MTRF	0.88	3.0	20	29	
NPIM104B1R0MTRF	1.0	3.3	18	28	
NPIM104B1R5MTRF	1.5	4.2	16	32	
NPIM104B1R8MTRF	1.8	5	15	15	
NPIM104B2R0MTRF	2.0	5.8	14	14	
NPIM104B2R2MTRF	2.2	7.0	12	18	
NPIM104B3R3MTRF	3.3	11.8	10	16	
NPIM104B4R7MTRF	4.7	20	8.5	15	
NPIM104B5R6MTRF	5.6	23	8.0	14	
NPIM104B6R8MTRF	6.8	25	7.0	12	
NPIM104B8R2MTRF	8.2	27	6.0	9.0	
NPIM104B100MTRF	10	30	7.5	8.5	
NPIM104B150MTRF	15	45	6.25	7.0	
NPIM104B220MTRF	22	66	5.0	5.5	
NPIM104B330MTRF	33	92	4.4	5.0	
NPIM104B470MTRF	47	145	3.3	3.5	
NPIM104B680MTRF	68	195	2.3	3.0	

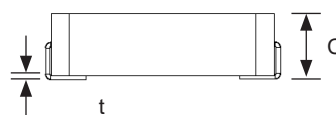
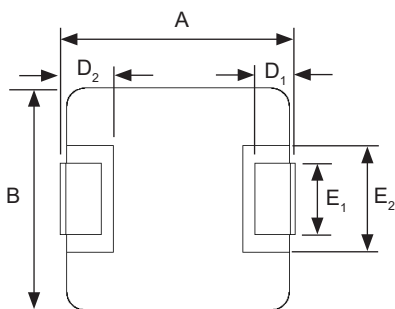


Contact NIC for NPIM104B Performance Curves

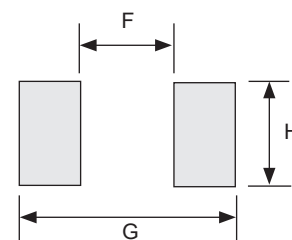
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM104S CASE AND LAND PATTERN DIMENSIONS

Series	Value	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM104B	R15 ~ 1R5	11.15 ± 0.35	10.0 ± 0.3	3.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	5.4	13.6	4.1
	1R8 ~ 680	10.85 ± 0.35	10.0 ± 0.3	3.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	5.4	13.6	4.1

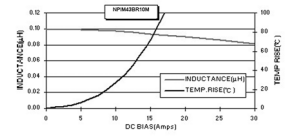


### LAND PATTERN





Part Number	STANDARD VALUES - CASE SIZE 105B (see size table below)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM105B1R0MTRF	1.0	3.2	22	34	100KHz
NPIM105B2R2MTRF	2.2	7.0	14.0	16.0	
NPIM105B3R3MTRF	3.3	13.2	11.0	14.5	
NPIM105B4R7MTRF	4.7	15.0	10.0	13.0	
NPIM105B5R6MTRF	5.6	18.5	8.5	10.5	
NPIM105B6R8MTRF	6.8	24.0	7.5	9.5	

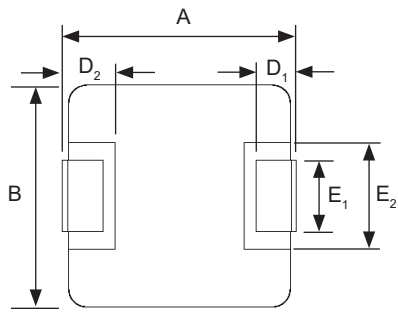


Contact NIC for NPIM105B Performance Curves

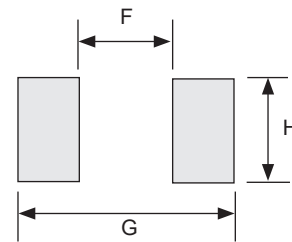
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM105B CASE AND LAND PATTERN DIMENSIONS

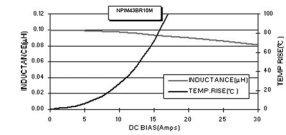
Series	Value	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM105B	1.0	11.15 ± 0.35	10.0 ± 0.3	4.3 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	5.4	13.6	4.1
	2.2 ~ 6.8	10.85 ± 0.35	10.0 ± 0.3	4.3 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	5.0 ± 0.2	0 ~ +0.15	5.4	13.6	4.1



### LAND PATTERN



Part Number	STANDARD VALUES - CASE SIZE 133B (see size table below)				
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM133BR22MTRF	0.22	1.2	38	55	100KHz
NPIM133BR56MTRF	0.56	2.0	29	44	
NPIM133BR68MTRF	0.68	2.4	28	42	
NPIM133BR82MTRF	0.82	2.9	25	37	
NPIM133B1R0MTRF	1.0	3.4	24	34	
NPIM133B1R2MTRF	1.2	3.8	20	27	
NPIM133B1R5MTRF	1.5	4.7	18	26	
NPIM133B2R2MTRF	2.2	6.9	14	20	
NPIM133B3R3MTRF	3.3	9.5	13	16	

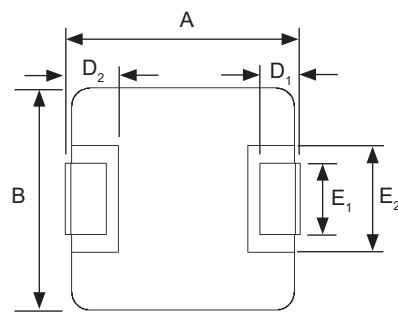


Contact NIC for NPIM133B Performance Curves

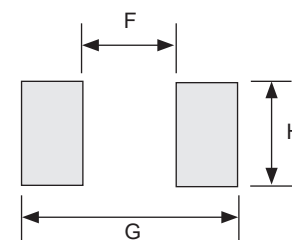
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM133B CASE AND LAND PATTERN DIMENSIONS

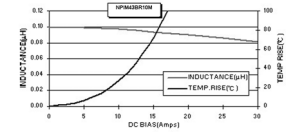
Series	Value	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM133B	0.22 ~ 0.68	13.45 ± 0.35	12.6 ± 0.2	3.3 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	4.0 ± 0.5	6.0 ± 0.2	0 ~ 0.15	8.0	14.5	5.0
	0.82 ~ 3.3	13.45 ± 0.35	12.6 ± 0.2	3.3 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	6.0 ± 0.2	0 ~ 0.15	8.0	14.5	5.0



### LAND PATTERN



Part Number	STANDARD VALUES - CASE SIZE 135B (see size table below)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current I <sub>rms</sub> (Amps)	DC Current I <sub>sat</sub> (Amps)	
NPIM135BR36MTRF	0.36	0.85	42	50	100KHz
NPIM135BR50MTRF	0.50	1.15	38	48	
NPIM135BR68MTRF	0.68	1.55	33	46	
NPIM135BR82MTRF	0.82	1.67	30	39	
NPIM135B1R0MTRF	1.0	2.2	26	35	
NPIM135B1R5MTRF	1.5	3.2	23	33	
NPIM135B1R8MTRF	1.8	3.2	23	27	
NPIM135B2R2MTRF	2.2	5.0	15	24	
NPIM135B3R3MTRF	3.3	7.0	14	22	
NPIM135B100MTRF	10	22	9.0	12	
NPIM135B220MTRF	22	58	4.5	6.5	
NPIM135B270MTRF	27	66	4.0	6.3	
NPIM135B330MTRF	33	84	3.5	6.0	
NPIM135B470MTRF	47	130	3.0	5.0	

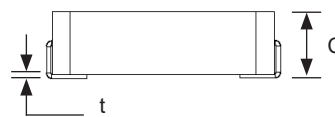
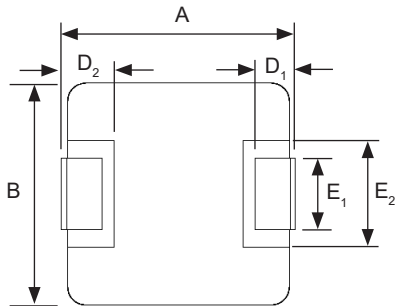


Contact NIC for NPIM135B Performance Curves

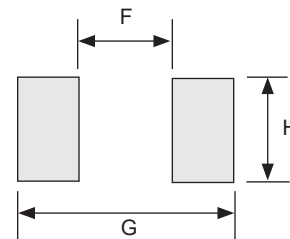
Maximum +40°C temperature rise at I<sub>rms</sub>. Typical -30% inductance change at I<sub>sat</sub>. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM133B CASE AND LAND PATTERN DIMENSIONS

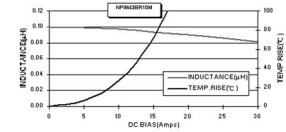
Series	Value	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM135B	0.36 ~ 1R8	13.45 ± 0.35	12.6 ± 0.2	4.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	4.0 ± 0.5	6.0 ± 0.2	0 ~ 0.15	8.0	14.5	5.0
	2R2 ~ 47	13.45 ± 0.35	12.6 ± 0.2	4.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	3.0 ± 0.5	6.0 ± 0.2	0 ~ 0.15	8.0	14.5	5.0



### LAND PATTERN



Part Number	STANDARD VALUES - CASE SIZE 136B (13.45 x 12.6 x 5.8mm)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current I <sub>rms</sub> (Amps)	DC Current I <sub>sat</sub> (Amps)	
NPIM136B120MTRF	12	23	7.0	10	100KHz
NPIM136B150MTRF	15	29	6.0	9.0	
NPIM136B180MTRF	18	35	5.0	8.0	
NPIM136B220MTRF	22	39.5	5.0	7.5	
NPIM136B270MTRF	27	56	4.0	6.5	
NPIM136B330MTRF	33	75	4.0	6.0	
NPIM136B470MTRF	47	90	3.5	5.5	
NPIM136B680MTRF	68	140	3.0	4.5	
NPIM136B101MTRF	100	200	2.5	3.5	
NPIM136B121MTRF	120	235	2.3	3.2	
NPIM136B151MTRF	150	350	2.0	2.7	

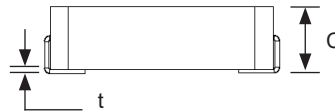
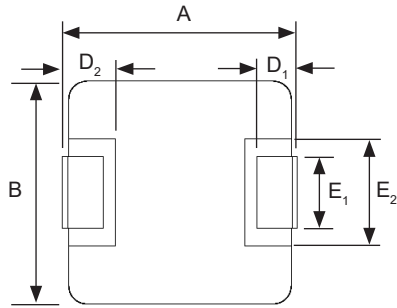


Contact NIC for NPIM136B Performance Curves

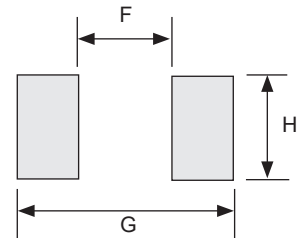
Maximum +40°C temperature rise at I<sub>rms</sub>. Typical -30% inductance change at I<sub>sat</sub>. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM136B CASE AND LAND PATTERN DIMENSIONS

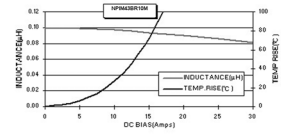
Series	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM136B	13.45 ± 0.35	12.6 ± 0.2	5.8 ± 0.2	2.0 ± 0.5	2.5 ± 0.1	5.0 ± 0.5	6.0 ± 0.2	0 ~ 0.15	8.0	14.5	5.5



### LAND PATTERN



Part Number	STANDARD VALUES - CASE SIZE 187B (17.15 x 17.15 x 6.8mm)				Test Frequency
	Inductance Value (μH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	
NPIM187B1R5MTRF	1.5	2.15	40	40	100KHz
NPIM187B2R2MTRF	2.2	2.5	37	34	
NPIM187B4R7MTRF	4.7	4.72	27	24	
NPIM187B6R8MTRF	6.8	7.55	20	22	
NPIM187B8R2MTRF	8.2	8.7	16	20	
NPIM187B100MTRF	10	10	14	18	
NPIM187B150MTRF	15	15.5	12	13	
NPIM187B200MTRF	20	21.9	9.7	12	
NPIM187B220MTRF	22	23	9.5	11	
NPIM187B330MTRF	33	37	9.0	10	
NPIM187B470MTRF	47	47	6.8	7.5	
NPIM187B680MTRF	68	85	5.2	6.5	

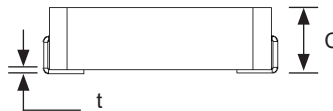
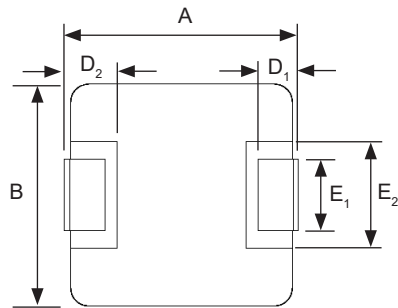


Contact NIC for NPIM187B Performance Curves

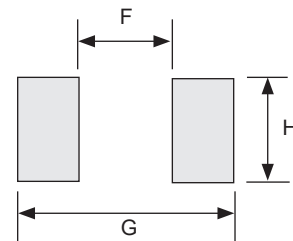
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat. Additional values are available outside the standard offering above. Please contact NIC for more details.

### NPIM187B CASE AND LAND PATTERN DIMENSIONS

Series	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	t	F	G	H
NPIM187B	17.15 ± 0.35	17.15 max.	6.8 ± 0.2	2.5 ± 0.5	3.5 ± 0.1	12.0 ± 0.3	13.0 ± 0.5	0 ~ 0.30	11.2	18.2	12.8



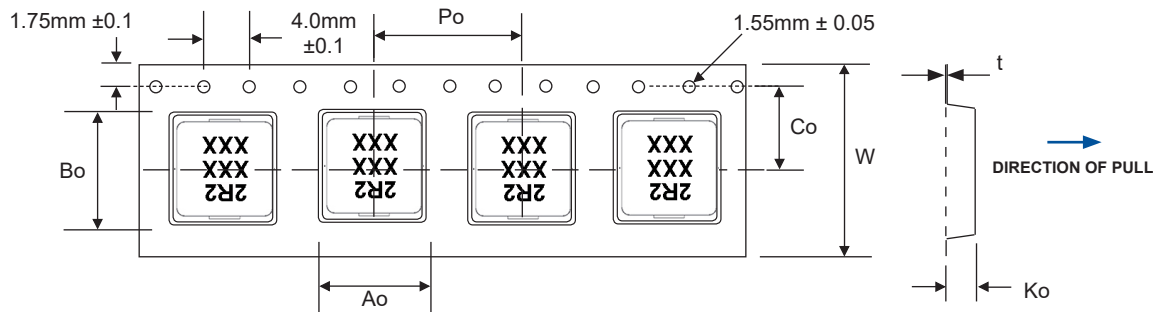
### LAND PATTERN



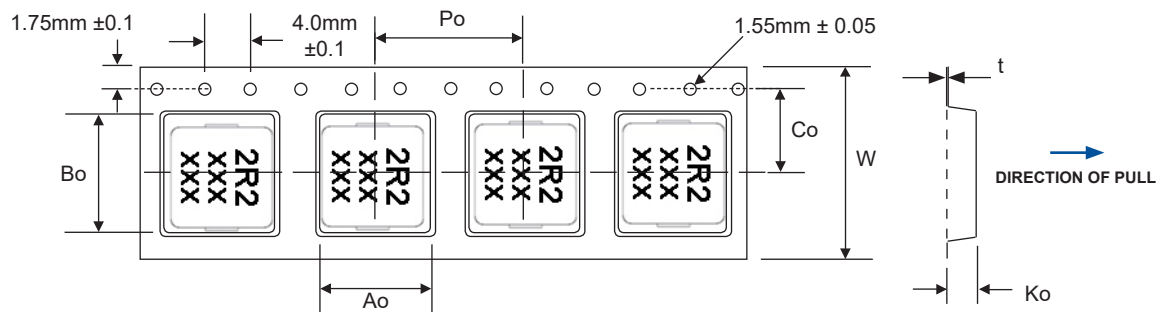
## CARRIER TAPE DIMENSIONS (mm)

Series	Part Thickness	Ao	Bo	Co	Po	Ko	t	W
NPIM41B	All	4.5 ± 0.10	4.8 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	1.4 ± 0.15	0.35 ± 0.05	12.0 ± 0.30
NPIM42B	All	4.4 ± 0.10	4.7 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	2.5 ± 0.15	0.30 ± 0.05	12.0 ± 0.30
NPIM51B	All	5.6 ± 0.10	5.9 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	1.5 ± 0.15	0.35 ± 0.05	12.0 ± 0.30
NPIM52B	All	5.6 ± 0.10	5.9 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	2.3 ± 0.15	0.35 ± 0.05	12.0 ± 0.30
NPIM53B	All	5.2 ± 0.10	5.4 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	3.6 ± 0.15	0.35 ± 0.05	16.0 ± 0.30
NPIM72B	All	7.2 ± 0.10	7.5 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	2.3 ± 0.10	0.30 ± 0.10	16.0 ± 0.30
NPIM73B	All	7.2 ± 0.10	7.5 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	3.6 ± 0.15	0.30 ± 0.10	16.0 ± 0.30
NPIM74B	All	7.2 ± 0.10	7.5 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	3.6 ± 0.15	0.30 ± 0.10	16.0 ± 0.30
NPIM75B	All	7.2 ± 0.10	7.8 ± 0.10	7.5 ± 0.10	12.0 ± 0.10	5.5 ± 0.10	0.35 ± 0.10	16.0 ± 0.30
NPIM101B	All	10.7 ± 0.10	12.0 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	2.0 ± 0.10	0.35 ± 0.10	24.0 ± 0.30
NPIM103B	All	10.7 ± 0.10	12.0 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	4.0 ± 0.10	0.30 ± 0.05	24.0 ± 0.30
NPIM104B	All	10.7 ± 0.10	12.0 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	4.5 ± 0.10	0.35 ± 0.05	24.0 ± 0.30
NPIM105B	All	10.7 ± 0.10	12.0 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	5.0 ± 0.15	0.35 ± 0.05	24.0 ± 0.30
NPIM133B	All	13.4 ± 0.10	14.1 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	3.7 ± 0.15	0.35 ± 0.05	24.0 ± 0.30
NPIM135B	All	13.4 ± 0.10	14.1 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	5.1 ± 0.15	0.35 ± 0.05	24.0 ± 0.30
NPIM136B	All	13.4 ± 0.10	14.1 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	6.1 ± 0.15	0.50 ± 0.05	24.0 ± 0.30
NPIM187B	All	17.45 ± 0.10	17.8 ± 0.10	11.5 ± 0.10	24.0 ± 0.10	7.3 ± 0.15	0.50 ± 0.05	24.0 ± 0.30

### COMPONENT & MARKING ORIENTATION FOR SIZES 41 ~ 75



### COMPONENT & MARKING ORIENTATION FOR SIZES 103 ~ 187



### REEL DIMENSIONS (mm)

Series	A	B	Qty/Reel
NPIM41B	12.5 ± 0.5	2.0 ± 0.2	3,000
NPIM42B	12.5 ± 0.5	2.0 ± 0.2	2,000
NPIM51B	12.5 ± 0.5	2.0 ± 0.2	3,000
NPIM52B	12.5 ± 0.5	2.0 ± 0.2	3,000
NPIM53B	16.0 ± 0.5	2.0 ± 0.2	1,000
NPIM72B	16.0 ± 0.5	2.0 ± 0.2	1,000
NPIM73B	16.0 ± 0.5	2.0 ± 0.2	1,000
NPIM74B	16.0 ± 0.5	2.0 ± 0.2	1,000
NPIM75B	16.0 ± 0.5	2.0 ± 0.2	500
NPIM101B	24.5 ± 0.5	2.0 ± 0.2	1,000
NPIM103B	24.5 ± 0.5	2.0 ± 0.2	500
NPIM104B	24.5 ± 0.5	2.0 ± 0.2	500
NPIM105B	24.5 ± 0.5	2.0 ± 0.2	500
NPIM133B	24.5 ± 0.5	2.0 ± 0.2	500
NPIM135B	24.5 ± 0.5	2.0 ± 0.2	500
NPIM136B	24.5 ± 0.5	2.0 ± 0.2	500
NPIM187B	24.5 ± 0.5	2.0 ± 0.2	200

