

FEATURES

- SHIELDED POWER INDUCTORS
- MOLDED METAL COMPOSITE CONSTRUCTION
- HIGH SATURATION CURRENT CHARACTERISTICS (~ 92A)
- **WIDE TEMPERATURE RANGE (-55°C ~ +125°C*)**
- NINETEEN CASE SIZES (1.0mm ~ 6.7mm HEIGHT)

*Including self-heating



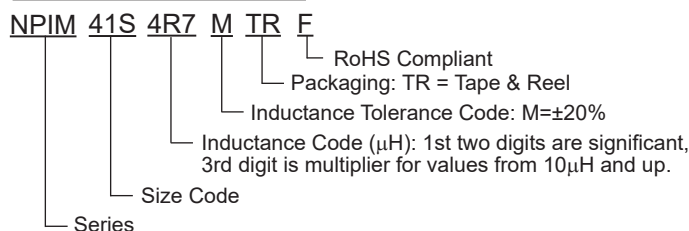
CHARACTERISTICS

Case Code	41	42	52	53	70	71	72
Inductance Range (μH)	0.15 ~ 4.7	0.1 ~ 22	0.47 ~ 10	0.1 ~ 15	0.47 ~ 22	0.1 ~ 22	0.22 ~ 22
Operating Temperature Range	-55°C ~ +85°C						
Maximum Component Temperature (Ambient + Self-Heating)	+125°C						
Temperature Rise at Irms	Δ = 40°C						
Inductance Change at Isat	-30%						
Inductance Tolerance	See Specifications Tables						
Resistance to Solder Heat	260°C ± 5°C for 10 seconds						

Case Code	73	74	75	84	113	114	115
Inductance Range (μH)	0.22 ~ 47	0.68 ~ 47	0.47 ~ 47	0.22 ~ 47	0.22 ~ 33	0.13 ~ 100	0.22 ~ 100
Operating Temperature Range	-55°C ~ +85°C						
Maximum Component Temperature (Ambient + Self-Heating)	+125°C						
Temperature Rise at Irms	Δ = 40°C						
Inductance Change at Isat	-30%						
Inductance Tolerance	See Specifications Tables						
Resistance to Solder Heat	260°C ± 5°C for 10 seconds						

Case Code	134	135	136	137	177
Inductance Range (μH)	0.22 ~ 22	0.22 ~ 47	1.5 ~ 150	4.7 ~ 100	2.2 ~ 100
Operating Temperature Range	-55°C ~ +85°C				
Maximum Component Temperature (Ambient + Self-Heating)	+125°C				
Temperature Rise at Irms	Δ = 40°C				
Inductance Change at Isat	-30%				
Inductance Tolerance	See Specifications Tables				
Resistance to Solder Heat	260°C ± 5°C for 10 seconds				

Part NUMBER SYSTEM



Part Number	STANDARD VALUES - CASE SIZE 41 (4.4 X 4.2 X 1.0mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM41SR15MTRF	0.15	±20%	9	15	7.5	100KHz/1.0V
NPIM41SR22MTRF	0.22	±20%	11	11	7.0	100KHz/1.0V
NPIM41SR33MTRF	0.33	±20%	19	8.4	6.5	100KHz/1.0V
NPIM41SR47MTRF	0.47	±20%	21	6.8	6.0	100KHz/1.0V
NPIM41SR68MTRF	0.68	±20%	36	6.0	4.7	100KHz/1.0V
NPIM41S1R0MTRF	1.0	±20%	47	5.5	4.5	100KHz/1.0V
NPIM41S1R5MTRF	1.5	±20%	75	4.0	3.25	100KHz/1.0V
NPIM41S2R2MTRF	2.2	±20%	83.5	3.0	2.75	100KHz/1.0V
NPIM41S3R3MTRF	3.3	±20%	160	2.7	2.0	100KHz/1.0V
NPIM41S4R7MTRF	4.7	±20%	195	2.2	1.8	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 42 (4.4 X 4.2 X 1.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM42SR10MTRF	0.1	±20%	4.0	22	13	100KHz/1.0V
NPIM42SR22MTRF	0.22	±20%	6.6	12.5	9.5	100KHz/1.0V
NPIM42SR33MTRF	0.33	±20%	11	12	10	100KHz/1.0V
NPIM42SR47MTRF	0.47	±20%	14	9.5	7.5	100KHz/1.0V
NPIM42SR56MTRF	0.56	±20%	16	9.0	7.0	100KHz/1.0V
NPIM42SR68MTRF	0.68	±20%	18	8.0	7.0	100KHz/1.0V
NPIM42S1R0MTRF	1.0	±20%	27	7.0	6.0	100KHz/1.0V
NPIM42S1R2MTRF	1.2	±20%	27	6.5	6.0	100KHz/1.0V
NPIM42S1R5MTRF	1.5	±20%	46	5.5	5.0	100KHz/1.0V
NPIM42S2R2MTRF	2.2	±20%	58	5.0	4.5	100KHz/1.0V
NPIM42S3R3MTRF	3.3	±20%	87	3.5	3.3	100KHz/1.0V
NPIM42S4R7MTRF	4.7	±20%	105	3.0	2.8	100KHz/1.0V
NPIM42S6R8MTRF	6.8	±20%	175	2.5	2.4	100KHz/1.0V
NPIM42S100MTRF	10	±20%	282	2.0	1.6	100KHz/1.0V
NPIM42S220MTRF	22	±20%	363	1.4	1.2	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 52 (5.4 X 5.2 X 1.6mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM52SR47MTRF	0.47	±20%	9.0	12	10.5	100KHz/1.0V
NPIM52SR56MTRF	0.56	±20%	10	11	9.5	100KHz/1.0V
NPIM52S1R0MTRF	1.0	±20%	17	9.0	8.0	100KHz/1.0V
NPIM52S1R5MTRF	1.5	±20%	26	8.0	7.5	100KHz/1.0V
NPIM52S2R2MTRF	2.2	±20%	35	6.0	5.0	100KHz/1.0V
NPIM52S3R3MTRF	3.3	±20%	58	4.8	4.5	100KHz/1.0V
NPIM52S4R7MTRF	4.7	±20%	85	4.0	3.5	100KHz/1.0V
NPIM52S6R8MTRF	6.8	±20%	120	3.4	2.8	100KHz/1.0V
NPIM52S100MTRF	10	±20%	155	2.5	2.5	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 53 (5.4 X 5.2 X 2.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM53SR10MTRF	0.1	±20%	3.0	30	25	100KHz/1.0V
NPIM53SR20MTRF	0.2	±20%	3.9	20	14	100KHz/1.0V
NPIM53SR33MTRF	0.33	±20%	5.5	18	14	100KHz/1.0V
NPIM53SR47MTRF	0.47	±20%	8.5	15	11	100KHz/1.0V
NPIM53SR68MTRF	0.68	±20%	12	11.5	9.0	100KHz/1.0V
NPIM53SR82MTRF	0.82	±20%	10.4	10.5	10.5	100KHz/1.0V
NPIM53S1R0MTRF	1.0	±20%	14	10	8.5	100KHz/1.0V
NPIM53S1R2MTRF	1.2	±20%	16	9.5	8.5	100KHz/1.0V
NPIM53S1R5MTRF	1.5	±20%	25	9.0	8.2	100KHz/1.0V
NPIM53S2R2MTRF	2.2	±20%	29	7.0	7.0	100KHz/1.0V
NPIM53S3R3MTRF	3.3	±20%	38	6.0	5.5	100KHz/1.0V
NPIM53S4R7MTRF	4.7	±20%	60	4.6	4.5	100KHz/1.0V
NPIM53S6R8MTRF	6.8	±20%	90	3.6	3.5	100KHz/1.0V
NPIM53S100MTRF	10	±20%	125	3.5	3.2	100KHz/1.0V
NPIM53S150MTRF	15	±20%	170	2.2	1.8	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 70 (7.0 X 6.6 X 1.3mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM70SR47MTRF	0.47	±20%	8.5	16	10	100KHz/1.0V
NPIM70SR56MTRF	0.56	±20%	11	14	9.0	100KHz/1.0V
NPIM70SR68MTRF	0.68	±20%	12	12	8.5	100KHz/1.0V
NPIM70SR82MTRF	0.82	±20%	17	10	8.0	100KHz/1.0V
NPIM70S1R0MTRF	1.0	±20%	21	9.0	6.0	100KHz/1.0V
NPIM70S1R5MTRF	1.5	±20%	18	12	8.0	100KHz/1.0V
NPIM70S2R2MTRF	2.2	±20%	54	7.0	3.8	100KHz/1.0V
NPIM70S3R3MTRF	3.3	±20%	63	5.5	3.5	100KHz/1.0V
NPIM70S4R7MTRF	4.7	±20%	85	5.0	3.2	100KHz/1.0V
NPIM70S6R8MTRF	6.8	±20%	135	4.0	2.5	100KHz/1.0V
NPIM70S100MTRF	10	±20%	175	3.0	2.0	100KHz/1.0V
NPIM70S220MTRF	22	±20%	510	2.5	1.32	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 71 (7.0 X 6.6 X 1.6mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM71SR10MTRF	0.1	±20%	2.3	38	25	100KHz/1.0V
NPIM71SR22MTRF	0.22	±20%	3.5	24	22	100KHz/1.0V
NPIM71SR47MTRF	0.47	±20%	8.4	18	11.5	100KHz/1.0V
NPIM71SR68MTRF	0.68	±20%	12	16.5	9.5	100KHz/1.0V
NPIM71S1R0MTRF	1	±20%	16	12	8.5	100KHz/1.0V
NPIM71S1R5MTRF	1.5	±20%	26	9.2	8.0	100KHz/1.0V
NPIM71S2R2MTRF	2.2	±20%	35	8.0	7.0	100KHz/1.0V
NPIM71S3R3MTRF	3.3	±20%	50	6.0	4.5	100KHz/1.0V
NPIM71S4R7MTRF	4.7	±20%	62	5.0	4.0	100KHz/1.0V
NPIM71S6R8MTRF	6.8	±20%	110	4.5	3.0	100KHz/1.0V
NPIM71S8R2MTRF	8.2	±20%	135	3.6	2.4	100KHz/1.0V
NPIM71S100MTRF	10	±20%	155	4.0	2.3	100KHz/1.0V
NPIM71S220MTRF	22	±20%	350	2.3	1.8	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Performance Passives By Design

Part Number	STANDARD VALUES - CASE SIZE 72 (7.0 X 6.6 X 2.2mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM72SR22MTRF	0.22	±20%	3.0	30	21	100KHz/1.0V
NPIM72SR33MTRF	0.33	±20%	4.1	24.5	18	100KHz/1.0V
NPIM72SR47MTRF	0.47	±20%	5.1	20	15	100KHz/1.0V
NPIM72SR56MTRF	0.56	±20%	6.5	17	13	100KHz/1.0V
NPIM72SR68MTRF	0.68	±20%	7.0	16	12	100KHz/1.0V
NPIM72S1R0MTRF	1.0	±20%	13.5	15	9.0	100KHz/1.0V
NPIM72S1R5MTRF	1.5	±20%	20	13.5	8.2	100KHz/1.0V
NPIM72S2R2MTRF	2.2	±20%	28	10	7.0	100KHz/1.0V
NPIM72S3R3MTRF	3.3	±20%	39	8.0	5.5	100KHz/1.0V
NPIM72S4R7MTRF	4.7	±20%	50	6.5	5.0	100KHz/1.0V
NPIM72S6R8MTRF	6.8	±20%	70	6.0	4.0	100KHz/1.0V
NPIM72S100MTRF	10	±20%	101	4.0	3.1	100KHz/1.0V
NPIM72S150MTRF	15	±20%	160	3.3	2.5	100KHz/1.0V
NPIM72S220MTRF	22	±20%	230	2.5	2.0	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 73 (7.0 X 6.6 X 2.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM73SR22MTRF	0.22	±20%	3.0	34	24	100KHz/1.0V
NPIM73SR24MTRF	0.24	±20%	3.1	28	23	100KHz/1.0V
NPIM73SR33MTRF	0.33	±20%	3.5	25	21	100KHz/1.0V
NPIM73SR47MTRF	0.47	±20%	4.1	20	18	100KHz/1.0V
NPIM73SR56MTRF	0.56	±20%	4.5	18	16.5	100KHz/1.0V
NPIM73SR68MTRF	0.68	±20%	5.3	17	16	100KHz/1.0V
NPIM73SR82MTRF	0.82	±20%	6.0	16	14	100KHz/1.0V
NPIM73S1R0MTRF	1.0	±20%	7.4	15	12	100KHz/1.0V
NPIM73S1R5MTRF	1.5	±20%	12.1	12	12	100KHz/1.0V
NPIM73S1R8MTRF	1.8	±20%	15	15.5	9.5	100KHz/1.0V
NPIM73S2R2MTRF	2.2	±20%	15	10	9.5	100KHz/1.0V
NPIM73S3R3MTRF	3.3	±20%	22	9.5	8.5	100KHz/1.0V
NPIM73S4R7MTRF	4.7	±20%	33	9.0	6.0	100KHz/1.0V
NPIM73S5R6MTRF	5.6	±20%	42	6.5	5.5	100KHz/1.0V
NPIM73S6R8MTRF	6.8	±20%	48	6.0	5.0	100KHz/1.0V
NPIM73S8R2MTRF	8.2	±20%	60	5.5	5.0	100KHz/1.0V
NPIM73S100MTRF	10	±20%	68	5.5	4.5	100KHz/1.0V
NPIM73S150MTRF	15	±20%	113	4.0	3.0	100KHz/1.0V
NPIM73S220MTRF	22	±20%	170	3.0	2.5	100KHz/1.0V
NPIM73S330MTRF	33	±20%	270	2.5	2.0	100KHz/1.0V
NPIM73S470MTRF	47	±20%	385	2.0	1.5	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 74 (7.0 X 6.6 X 3.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM74SR68MTRF	0.68	±20%	4.8	19	17	100KHz/1.0V
NPIM74S1R0MTRF	1.0	±20%	6.6	16	16=3.5	100KHz/1.0V
NPIM74S1R5MTRF	1.5	±20%	10	12.5	12.4	100KHz/1.0V
NPIM74S2R2MTRF	2.2	±20%	14	11	9.0	100KHz/1.0V
NPIM74S3R3MTRF	3.3	±20%	20	9.5	8.5	100KHz/1.0V
NPIM74S4R7MTRF	4.7	±20%	30	9.0	7.0	100KHz/1.0V
NPIM74S6R8MTRF	6.8	±20%	45	6.5	5.5	100KHz/1.0V
NPIM74S100MTRF	10	±20%	65	6.0	4.8	100KHz/1.0V
NPIM74S150MTRF	15	±20%	110	4.5	3.5	100KHz/1.0V
NPIM74S220MTRF	22	±20%	125	4.0	3.3	100KHz/1.0V
NPIM74S330MTRF	33	±20%	240	3.0	2.2	100KHz/1.0V
NPIM74S470MTRF	47	±20%	320	2.5	1.8	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 75 (7.0 X 6.6 X 4.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM75SR47MTRF	0.47	±20%	3.9	21	20	100KHz/1.0V
NPIM75SR68MTRF	0.68	±20%	4.5	18	16.5	100KHz/1.0V
NPIM75S1R0MTRF	1.0	±20%	6.6	16	12	100KHz/1.0V
NPIM75S1R5MTRF	1.5	±20%	10	13	9.5	100KHz/1.0V
NPIM75S2R2MTRF	2.2	±20%	12.5	11	9.0	100KHz/1.0V
NPIM75S3R3MTRF	3.3	±20%	22	10	8.5	100KHz/1.0V
NPIM75S4R7MTRF	4.7	±20%	29	8.0	6.0	100KHz/1.0V
NPIM75S6R8MTRF	6.8	±20%	41	6.3	5.8	100KHz/1.0V
NPIM75S8R2MTRF	8.2	±20%	48	5.5	5.5	100KHz/1.0V
NPIM75S100MTRF	10	±20%	60	5.3	4.5	100KHz/1.0V
NPIM75S150MTRF	15	±20%	90	4.0	3.1	100KHz/1.0V
NPIM75S220MTRF	22	±20%	140	3.5	2.6	100KHz/1.0V
NPIM75S330MTRF	33	±20%	190	3.0	2.3	100KHz/1.0V
NPIM75S470MTRF	47	±20%	230	2.6	2.0	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 84 (8.8 X 8.2 X 3.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM84SR22MTRF	0.22	±20%	1.8	60	36	100KHz/1.0V
NPIM84SR33MTRF	0.33	±20%	2.4	45	30	100KHz/1.0V
NPIM84SR47MTRF	0.47	±20%	2.8	42	28	100KHz/1.0V
NPIM84SR56MTRF	0.56	±20%	3.2	26	24	100KHz/1.0V
NPIM84SR68MTRF	0.68	±20%	3.8	24	23	100KHz/1.0V
NPIM84SR82MTRF	0.82	±20%	4.4	21	21	100KHz/1.0V
NPIM84S1R0MTRF	1.0	±20%	4.62	19	19	100KHz/1.0V
NPIM84S1R5MTRF	1.5	±20%	7.6	17	17	100KHz/1.0V
NPIM84S1R8MTRF	1.8	±20%	11	15	15	100KHz/1.0V
NPIM84S2R2MTRF	2.2	±20%	11.4	14	14	100KHz/1.0V
NPIM84S3R3MTRF	3.3	±20%	15	12.5	12	100KHz/1.0V
NPIM84S4R7MTRF	4.7	±20%	26.5	11.5	9.5	100KHz/1.0V
NPIM84S5R6MTRF	5.6	±20%	30	11	9.0	100KHz/1.0V
NPIM84S6R8MTRF	6.8	±20%	36.8	9.0	8.0	100KHz/1.0V
NPIM84S8R2MTRF	8.2	±20%	46	8.7	7.0	100KHz/1.0V
NPIM84S100MTRF	10	±20%	59	8.0	6.5	100KHz/1.0V
NPIM84S150MTRF	15	±20%	71	5.5	5.4	100KHz/1.0V
NPIM84S220MTRF	22	±20%	113	5.0	4.8	100KHz/1.0V
NPIM84S330MTRF	33	±20%	156	3.5	3.5	100KHz/1.0V
NPIM84S470MTRF	47	±20%	225	3.1	2.9	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 113 (11.5 X 10.0 X 2.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM113SR22MTRF	0.22	±20%	1.2	50	33	100KHz/1.0V
NPIM113SR33MTRF	0.33	±20%	1.6	32	23	100KHz/1.0V
NPIM113SR36MTRF	0.36	±20%	1.6	28	23	100KHz/1.0V
NPIM113SR47MTRF	0.47	±20%	2.5	26	22	100KHz/1.0V
NPIM113SR82MTRF	0.82	±20%	3.7	23	18	100KHz/1.0V
NPIM113S1R0MTRF	1.0	±20%	6.0	21	15	100KHz/1.0V
NPIM113S1R5MTRF	1.5	±20%	7.5	20	13	100KHz/1.0V
NPIM113S2R2MTRF	2.2	±20%	9.0	14	11	100KHz/1.0V
NPIM113S3R3MTRF	3.3	±20%	16	12	9.0	100KHz/1.0V
NPIM113S4R7MTRF	4.7	±20%	22.5	10	7.0	100KHz/1.0V
NPIM113S8R2MTRF	8.2	±20%	45	7.0	5.0	100KHz/1.0V
NPIM113S100MTRF	10	±20%	55	6.5	4.5	100KHz/1.0V
NPIM113S330MTRF	33	±20%	160	4.0	2.6	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 114 (11.5 X 10.0 X 3.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM114SR13MTRF	0.13	±20%	0.55	92	72	100KHz/1.0V
NPIM114SR15MTRF	0.15	±20%	0.65	75	45	100KHz/1.0V
NPIM114SR20MTRF	0.20	±20%	0.95	61	36	100KHz/1.0V
NPIM114SR22MTRF	0.22	±20%	1.0	60	35	100KHz/1.0V
NPIM114SR30MTRF	0.30	±20%	1.1	45	35	100KHz/1.0V
NPIM114SR36MTRF	0.36	±20%	1.2	45	30	100KHz/1.0V
NPIM114SR45MTRF	0.45	±20%	1.2	45	30	100KHz/1.0V
NPIM114SR47MTRF	0.47	±20%	1.7	40	30	100KHz/1.0V
NPIM114SR56MTRF	0.56	±20%	1.8	33	25	100KHz/1.0V
NPIM114SR68MTRF	0.68	±20%	2.4	30	23	100KHz/1.0V
NPIM114SR80MTRF	0.8	±20%	2.7	29	23	100KHz/1.0V
NPIM114S1R0MTRF	1.0	±20%	3.3	28	19	100KHz/1.0V
NPIM114S1R5MTRF	1.5	±20%	4.2	24	16	100KHz/1.0V
NPIM114S2R2MTRF	2.2	±20%	7.0	16.5	12	100KHz/1.0V
NPIM114S3R3MTRF	3.3	±20%	11.8	16	11	100KHz/1.0V
NPIM114S4R7MTRF	4.7	±20%	20	13	9.0	100KHz/1.0V
NPIM114S6R8MTRF	6.8	±20%	25	12	8.5	100KHz/1.0V
NPIM114S8R2MTRF	8.2	±20%	27	9.0	8.0	100KHz/1.0V
NPIM114S100MTRF	10	±20%	30	8.5	7.8	100KHz/1.0V
NPIM114S150MTRF	15	±20%	45	7.0	6.5	100KHz/1.0V
NPIM114S220MTRF	22	±20%	66	5.5	5.0	100KHz/1.0V
NPIM114S330MTRF	33	±20%	92	4.8	4.4	100KHz/1.0V
NPIM114S470MTRF	47	±20%	145	3.5	3.3	100KHz/1.0V
NPIM114S680MTRF	68	±20%	195	3.0	2.5	100KHz/1.0V
NPIM114S820MTRF	82	±20%	285	2.8	2.3	100KHz/1.0V
NPIM114S101MTRF	100	±20%	340	2.3	2.0	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 115 (11.5 X 10.0 X 3.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM115SR22MTRF	0.22	±20%	0.8	65	37	100KHz/1.0V
NPIM115SR68MTRF	0.68	±20%	1.95	37	23	100KHz/1.0V
NPIM115S1R0MTRF	1.0	±20%	3	30	23	100KHz/1.0V
NPIM115S1R5MTRF	1.5	±20%	3.8	25	21	100KHz/1.0V
NPIM115S2R2MTRF	2.2	±20%	6	19	15	100KHz/1.0V
NPIM115S3R3MTRF	3.3	±20%	10	16	13	100KHz/1.0V
NPIM115S4R7MTRF	4.7	±20%	14	15	11	100KHz/1.0V
NPIM115S5R6MTRF	5.6	±20%	17	14	9.5	100KHz/1.0V
NPIM115S6R8MTRF	6.8	±20%	18.5	14	9.0	100KHz/1.0V
NPIM115S100MTRF	10	±20%	28	10	8.0	100KHz/1.0V
NPIM115S150MTRF	15	±20%	42	7.5	6.5	100KHz/1.0V
NPIM115S220MTRF	22	±20%	50	6.0	5.5	100KHz/1.0V
NPIM115S330MTRF	33	±20%	86	5.2	4.8	100KHz/1.0V
NPIM115S470MTRF	47	±20%	127	4.5	3.7	100KHz/1.0V
NPIM115S101MTRF	100	±20%	290	2.8	2.1	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.



Part Number	STANDARD VALUES - CASE SIZE 134 (13.45 X 12.8 X 4.0mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM134SR22MTRF	0.22	±20%	0.9	50	42	100KHz/1.0V
NPIM134SR47MTRF	0.47	±20%	2.0	48	33	100KHz/1.0V
NPIM134SR68MTRF	0.68	±20%	3.5	47	28	100KHz/1.0V
NPIM134SR82MTRF	0.82	±20%	4.5	40	28	100KHz/1.0V
NPIM134S1R0MTRF	1.0	±20%	7.5	35	24	100KHz/1.0V
NPIM134S1R5MTRF	1.5	±20%	9.5	30.5	20	100KHz/1.0V
NPIM134S2R2MTRF	2.2	±20%	11.5	26	18	100KHz/1.0V
NPIM134S3R3MTRF	3.3	±20%	13	21	15	100KHz/1.0V
NPIM134S4R7MTRF	4.7	±20%	14.5	18	13	100KHz/1.0V
NPIM134S6R8MTRF	6.8	±20%	20	14	9.0	100KHz/1.0V
NPIM134S100MTRF	10	±20%	25	10	8.0	100KHz/1.0V
NPIM134S150MTRF	15	±20%	39	7.5	6.5	100KHz/1.0V
NPIM134S220MTRF	22	±20%	51	6.0	4.5	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 135 (13.45 X 12.8 X 4.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM135SR22MTRF	0.22	±20%	0.7	75	50	100KHz/1.0V
NPIM135SR36MTRF	0.36	±20%	0.85	50	42	100KHz/1.0V
NPIM135SR50MTRF	0.5	±20%	1.15	48	38	100KHz/1.0V
NPIM135SR68MTRF	0.68	±20%	1.55	46	33	100KHz/1.0V
NPIM135SR82MTRF	0.82	±20%	1.67	39	30	100KHz/1.0V
NPIM135S1R0MTRF	1.0	±20%	2.2	35	26	100KHz/1.0V
NPIM135S1R5MTRF	1.5	±20%	3.2	33	23	100KHz/1.0V
NPIM135S2R2MTRF	2.2	±20%	5.0	24	15	100KHz/1.0V
NPIM135S3R3MTRF	3.3	±20%	7.0	22	14	100KHz/1.0V
NPIM135S4R7MTRF	4.7	±20%	9.0	20	13	100KHz/1.0V
NPIM135S6R8MTRF	6.8	±20%	18	16	12	100KHz/1.0V
NPIM135S100MTRF	10	±20%	22	12	9.0	100KHz/1.0V
NPIM135S150MTRF	15	±20%	30	10	8.0	100KHz/1.0V
NPIM135S220MTRF	22	±20%	58	6.5	4.5	100KHz/1.0V
NPIM135S330MTRF	33	±20%	84	6.0	3.5	100KHz/1.0V
NPIM135S470MTRF	47	±20%	130	5.0	3.0	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 136 (13.45 X 12.8 X 5.8mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM136S1R5MTRF	1.5	±20%	2.9	30	27	100KHz/1.0V
NPIM136S2R2MTRF	2.2	±20%	4.2	28	22	100KHz/1.0V
NPIM136S3R3MTRF	3.3	±20%	6.8	25	17	100KHz/1.0V
NPIM136S4R7MTRF	4.7	±20%	9.0	24	15	100KHz/1.0V
NPIM136S5R6MTRF	5.6	±20%	11	22.5	13	100KHz/1.0V
NPIM136S6R8MTRF	6.8	±20%	13.5	19	12	100KHz/1.0V
NPIM136S8R2MTRF	8.2	±20%	16	13.5	11	100KHz/1.0V
NPIM136S100MTRF	10	±20%	20.7	12.5	10	100KHz/1.0V
NPIM136S120MTRF	12	±20%	23	10	9.0	100KHz/1.0V
NPIM136S150MTRF	15	±20%	29	9.0	8.5	100KHz/1.0V
NPIM136S180MTRF	18	±20%	35	8.0	7.5	100KHz/1.0V
NPIM136S220MTRF	22	±20%	39.5	7.5	7.0	100KHz/1.0V
NPIM136S270MTRF	27	±20%	56	6.5	6.0	100KHz/1.0V
NPIM136S330MTRF	33	±20%	75	6.0	5.5	100KHz/1.0V
NPIM136S470MTRF	47	±20%	90	5.5	5.0	100KHz/1.0V
NPIM136S680MTRF	68	±20%	140	4.5	4.0	100KHz/1.0V
NPIM136S101MTRF	100	±20%	200	3.5	3.0	100KHz/1.0V
NPIM136S121MTRF	120	±20%	235	3.2	2.0	100KHz/1.0V
NPIM136S151MTRF	150	±20%	350	2.7	1.5	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 137 (13.5 X 12.6 X 6.50mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM137S4R7MTRF	4.7	±20%	8.5	24	16	100KHz/1.0V
NPIM137S5R6MTRF	5.6	±20%	10.5	22.5	14	100KHz/1.0V
NPIM137S6R8MTRF	6.8	±20%	12	19	13	100KHz/1.0V
NPIM137S8R2MTRF	8.2	±20%	14	16	12	100KHz/1.0V
NPIM137S100MTRF	10	±20%	16.5	15	11	100KHz/1.0V
NPIM137S150MTRF	15	±20%	26	11	9.5	100KHz/1.0V
NPIM137S220MTRF	22	±20%	36	9.0	8.0	100KHz/1.0V
NPIM137S330MTRF	33	±20%	65	8.0	6.5	100KHz/1.0V
NPIM137S470MTRF	47	±20%	70	6.8	5.5	100KHz/1.0V
NPIM137S680MTRF	68	±20%	120	5.2	4.8	100KHz/1.0V
NPIM137S820MTRF	82	±20%	135	4.5	4.0	100KHz/1.0V
NPIM137S101MTRF	100	±20%	170	4.0	3.5	100KHz/1.0V

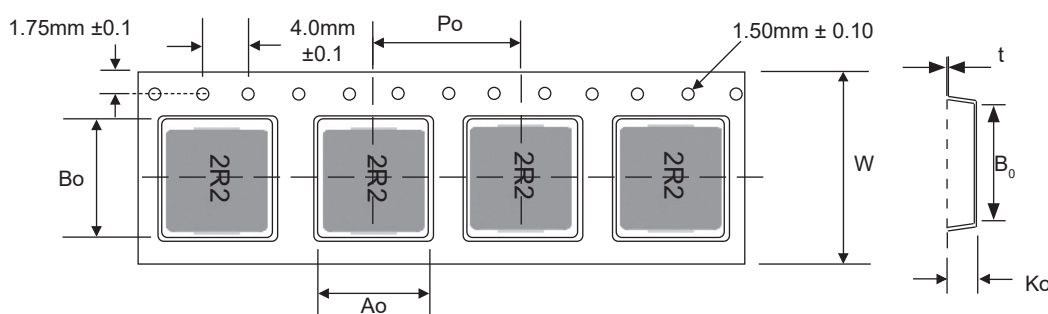
Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

Part Number	STANDARD VALUES - CASE SIZE 177 (17.15 X 17.15 X 6.70mm)					
	Inductance Value (μH)	Tolerance	DC Resistance (mΩ) Max.	DC Current Isat (Amps)	DC Current Irms (Amps)	Test Frequency
NPIM177S2R2MTRF	2.2	±20%	2.5	34	29	100KHz/1.0V
NPIM177S3R3MTRF	3.3	±20%	3.95	30	24	100KHz/1.0V
NPIM177S4R7MTRF	4.7	±20%	4.75	24	21	100KHz/1.0V
NPIM177S6R8MTRF	6.8	±20%	7.5	22	17	100KHz/1.0V
NPIM177S8R2MTRF	8.2	±20%	8.7	20	13	100KHz/1.0V
NPIM177S100MTRF	10	±20%	9.9	19	12	100KHz/1.0V
NPIM177S150MTRF	15	±20%	17	14.5	11	100KHz/1.0V
NPIM177S220MTRF	22	±20%	23	11.5	8.5	100KHz/1.0V
NPIM177S330MTRF	33	±20%	37	8.0	10	100KHz/1.0V
NPIM177S470MTRF	47	±20%	47	6.0	7.5	100KHz/1.0V
NPIM177S680MTRF	68	±20%	85	5.2	6.5	100KHz/1.0V
NPIM177S101MTRF	100	±20%	130	3.7	5.0	100KHz/1.0V

Maximum +40°C Temperature rise at Irms. Approximate -30% inductance change at Isat.

CARRIER TAPE DIMENSIONS (mm)

Size Code	B ₀	A ₀	K ₀	P ₀	W	t
41	4.9 ± 0.1	4.4 ± 0.1	1.5 ± 0.05	8.0 ± 1.0	12.4 ± 2.0	0.30 ± 0.05
42	4.9 ± 0.1	4.4 ± 0.1	2.3 ± 0.05	8.0 ± 1.0	12.4 ± 2.0	0.35 ± 0.05
52	5.9 ± 0.1	5.4 ± 0.1	2.1 ± 0.05	8.0 ± 1.0	12.4 ± 2.0	0.35 ± 0.05
53	5.9 ± 0.1	5.4 ± 0.1	3.3 ± 0.05	8.0 ± 1.0	12.4 ± 2.0	0.35 ± 0.05
70	7.5 ± 0.1	6.9 ± 0.1	1.7 ± 0.10	12.0 ± 1.0	16.4 ± 2.0	0.35 ± 0.05
71	7.5 ± 0.1	6.9 ± 0.1	2.1 ± 0.05	12.0 ± 1.0	16.4 ± 2.0	0.35 ± 0.05
72	7.5 ± 0.1	6.9 ± 0.1	2.7 ± 0.05	12.0 ± 1.0	16.4 ± 2.0	0.35 ± 0.05
73	7.5 ± 0.1	6.9 ± 0.1	3.3 ± 0.05	12.0 ± 1.0	16.4 ± 2.0	0.35 ± 0.05
74	7.5 ± 0.1	6.9 ± 0.1	4.2 ± 0.10	12.0 ± 1.0	16.4 ± 2.0	0.35 ± 0.05
75	7.5 ± 0.1	6.9 ± 0.1	5.2 ± 0.10	12.0 ± 1.0	16.4 ± 2.0	0.40 ± 0.05
84	10.1 ± 0.1	8.9 ± 0.1	4.4 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.35 ± 0.05
113	11.6 ± 0.1	10.4 ± 0.1	3.3 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.35 ± 0.05
114	11.5 ± 0.1	10.4 ± 0.1	4.3 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.35 ± 0.05
115	11.6 ± 0.1	10.4 ± 0.1	5.4 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.35 ± 0.05
134	14.4 ± 0.1	13.4 ± 0.1	4.3 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.50 ± 0.05
135	14.4 ± 0.1	13.4 ± 0.1	5.3 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.50 ± 0.05
136	14.4 ± 0.1	13.4 ± 0.1	6.3 ± 0.10	16.0 ± 1.0	24.4 ± 2.0	0.50 ± 0.05
137	14.0 ± 0.1	13.4 ± 0.1	6.8 ± 0.10	16.0 ± 1.0	24.0 ± 0.5	0.50 ± 0.05
177	18.1 ± 0.1	17.5 ± 0.1	7.3 ± 0.10	24.0 ± 1.0	24.4 ± 2.0	0.50 ± 0.05



NPIM-S Series

Shielded Power Inductors



REEL DIMENSIONS (mm)

Size Code	W	Qty/Reel
41	12.4 ± 2.0	3,000
42	12.4 ± 2.0	3,000
52	12.4 ± 2.0	2,000
53	12.4 ± 2.0	2,000
70	16.4 ± 2.0	2,000
71	16.4 ± 2.0	1,500
72	16.4 ± 2.0	1,500
73	16.4 ± 2.0	1,500
74	16.4 ± 2.0	1,000
75	16.4 ± 2.0	1,000
84	24.4 ± 2.0	800
113	24.4 ± 2.0	500
114	24.4 ± 2.0	500
115	24.4 ± 2.0	500
134	24.4 ± 2.0	500
135	24.4 ± 2.0	500
136	24.4 ± 2.0	500
137	24.0 ± 0.5	500
177	24.4 ± 2.0	200

