NPIM Shielded Power Inductors

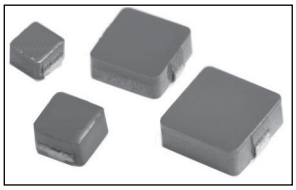
NPIM_Z Series

FEATURES

- SHIELDED POWER INDUCTOR
- MOLDED METAL COMPOSITE CONSTRUCTION
- HIGH SATURATION CURRENT CHARACTERISTICS (~ 69A)

RoHS Compliant
includes all homogeneous materials

*See Part Number System for Details



CHARACTERISTICS

Series	NPIM42Z	NPIM43Z	NPIM75Z	NPIM110Z
Inductance Range	0.20 ~ 2.2µH	3.3µH	0.50 ~ 2.2µH	0.35 ~ 1.0µH
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

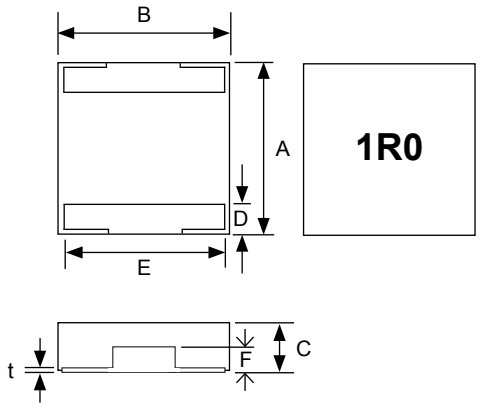
NPIM 42Z R40 M TR F

- F — RoHS Compliant
- TR = Tape & Reel Packaging
- M — Tolerance: M = 20%
- R40 — Inductance Value Code: First two characters are signficant figures, 3rd character is multiplier, "R" = decimal point
- 42Z — Size Code
- NPIM — Series

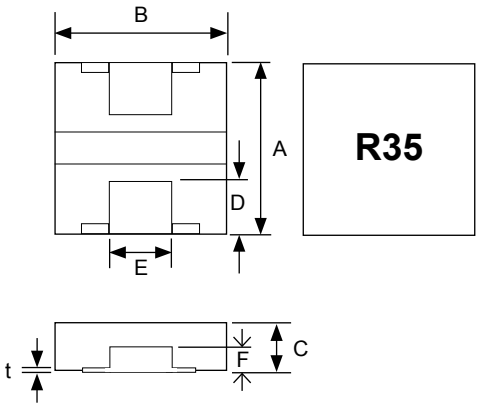
DIMENSIONS (mm)

Series	A	B	C	D	E	t	F	G	H	J
NPIM42Z	4.0 ± 0.30	4.0 ± 0.3	2.0 max.	1.2 ± 0.3	3.4 ± 0.2	0.10 ± 0.05	0.9 ± 0.2	4.3	3.7	1.39
NPIM43Z	4.0 ± 0.30	4.0 ± 0.3	3.0 max.	1.2 ± 0.3	3.4 ± 0.2	0.10 ± 0.05	0.9 ± 0.2	4.3	3.7	1.39
NPIM75Z	7.2 ± 0.50	7.5 ± 0.50	5.0 Max	1.5 ± 0.3	5.0 ± 0.3	0.30 ± 0.10	2.7 ± 0.3	7.3	6.9	3.70
NPIM110Z	10.5 ± 0.50	11.3 ± 0.5	10.0 max.	2.0 ± 0.5	3.5 ± 0.5	0.35 ± 0.10	5.0 ± 0.5	10.02	10.6	4.22

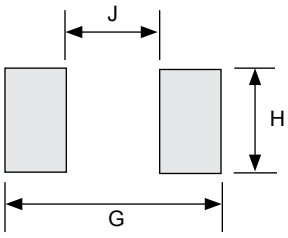
NPIM42Z & 43Z



NPIM75Z & 110Z



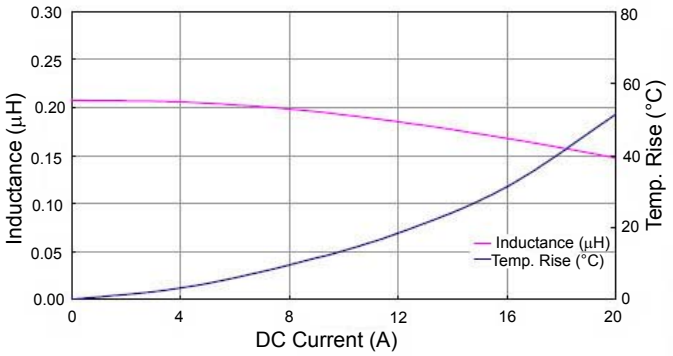
LAND PATTERN



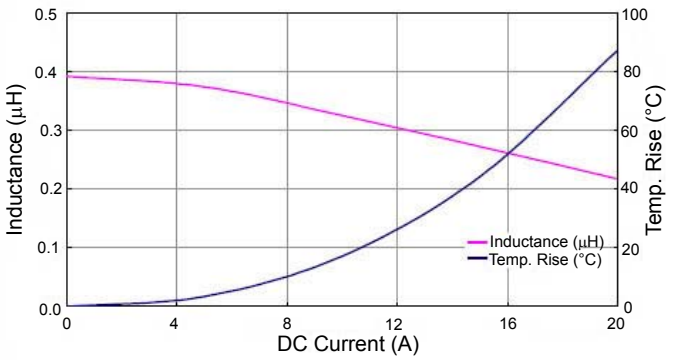
Part Number	STANDARD VALUES - CASE SIZE 42Z (4.0 X 4.0 X 2.0mm)				
	Inductance Value (µH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM42ZR20MTRF	0.20	6.4	16.8	18.7	100KHz
NPIM42ZR40MTRF	0.40	8.3	14.0	12.5	
NPIM42ZR60MTRF	0.60	10.45	11.7	10.4	
NPIM42Z1R0MTRF	1.0	14.6	9.6	8.7	
NPIM42Z1R5MTRF	1.5	23.6	7.5	7.1	
NPIM42Z2R2MTRF	2.2	38.7	5.5	5.6	

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.

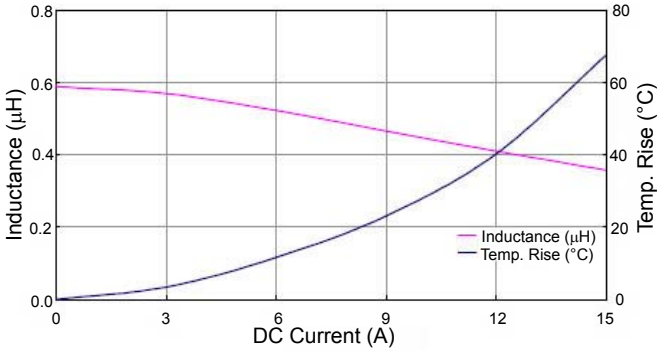
NPIM42ZR20MTRF



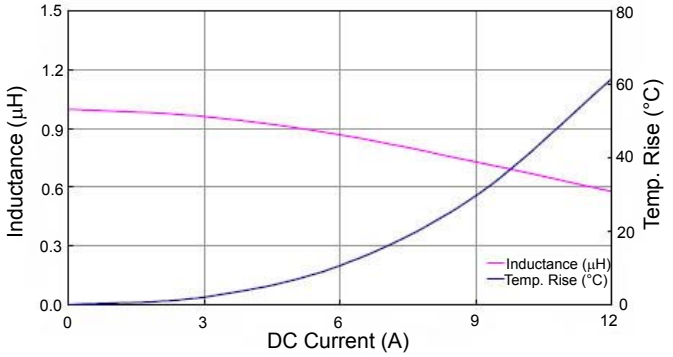
NPIM42ZR40MTRF



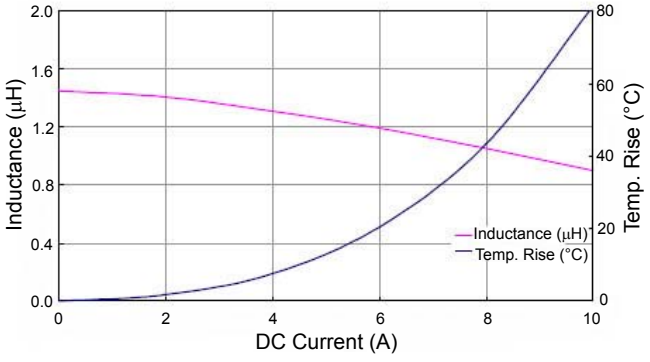
NPIM42ZR60MTRF



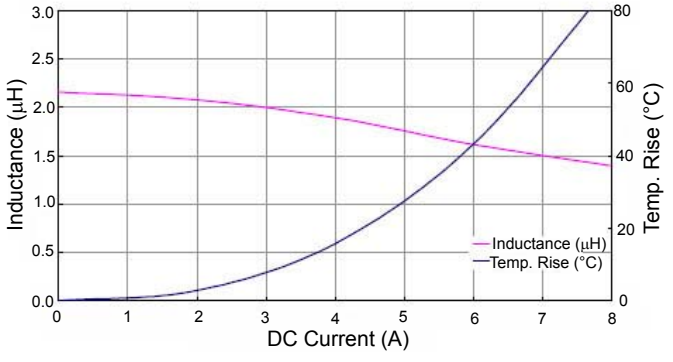
NPIM42Z1R0MTRF



NPIM42Z1R5MTRF

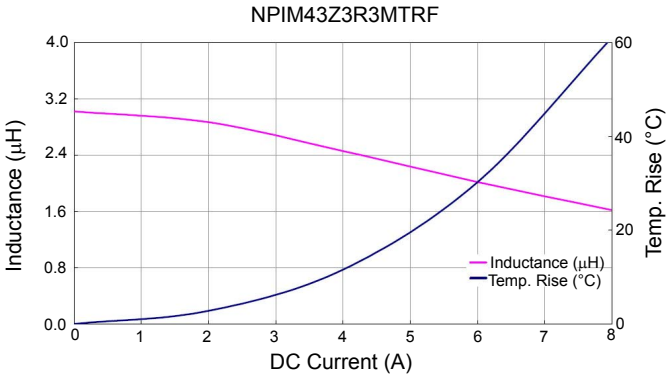


NPIM42Z2R2MTRF



Part Number	STANDARD VALUES - CASE SIZE 43Z (4.0 X 4.0 X 3.0mm)				
	Inductance Value (µH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM43Z3R3MTRF	3.3	28.6	6.6	5.5	100KHz

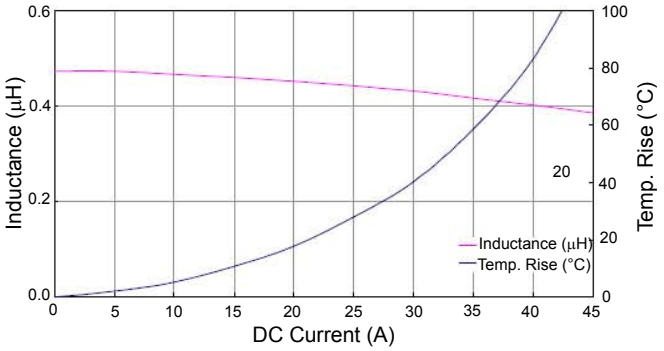
Maximum +40°C temperature rise at Irms. Typical -30% inductance change at Isat.
Additional values are available outside the standard offering above. Please contact NIC for more details.



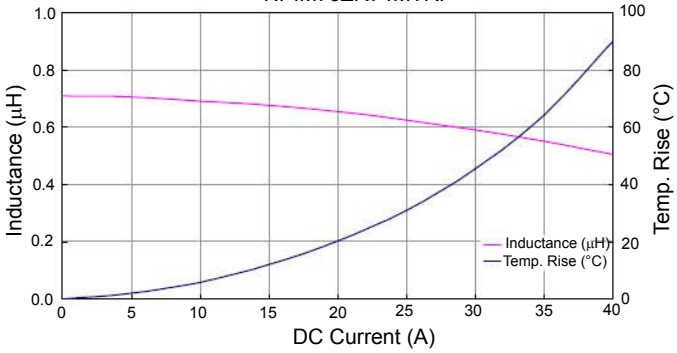
Part Number	STANDARD VALUES - CASE SIZE 75Z (7.2 X 7.5 X 5.0mm)				
	Inductance Value (µH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM75ZR50MTRF	0.50	2.40	28.1	40.5	100KHz
NPIM75ZR74MTRF	0.74	3.57	27.1	27.8	
NPIM75Z1R0MTRF	1.0	4.60	23.1	24.0	
NPIM75Z1R5MTRF	1.5	6.60	18.8	20.0	
NPIM75Z2R2MTRF	2.2	9.15	16.3	18.0	

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.

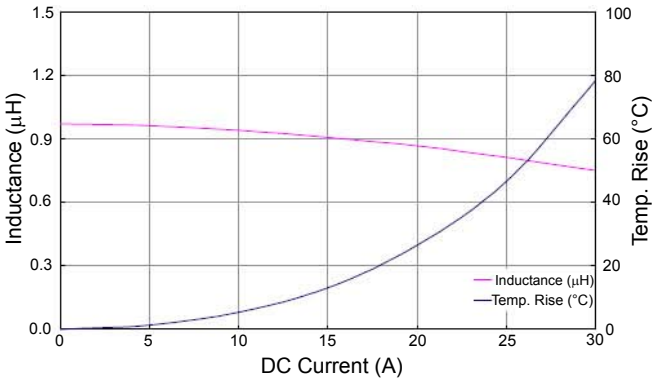
NPIM75ZR50MTRF



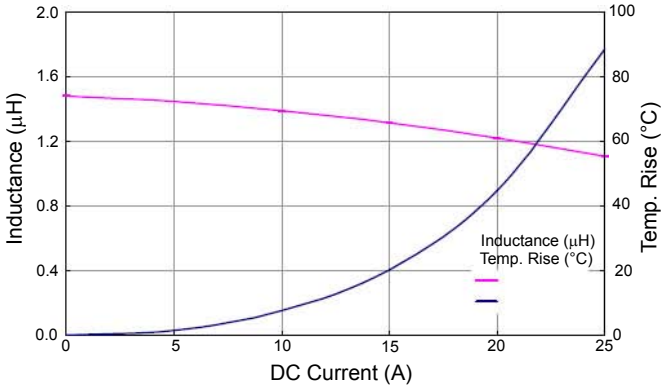
NPIM75ZR74MTRF



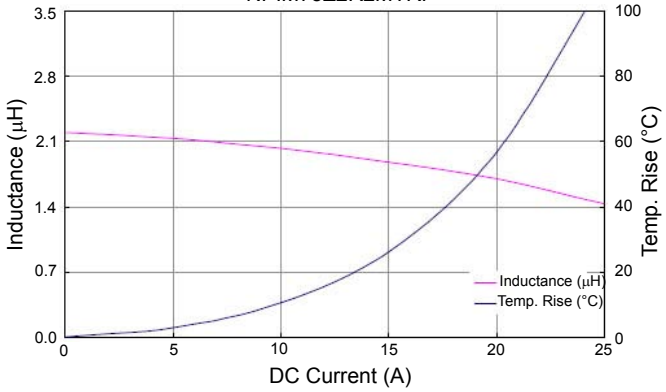
NPIM75Z1R0MTRF



NPIM75Z1R5MTRF



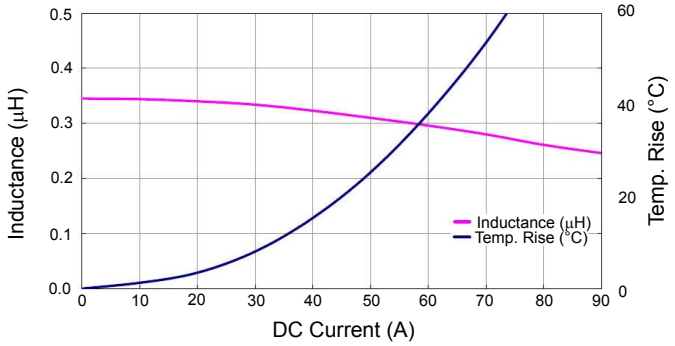
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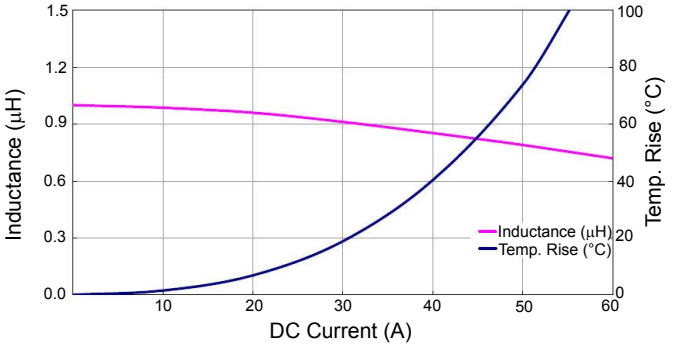
Part Number	STANDARD VALUES - CASE SIZE 110Z (10.5 X 11.3 X 10.0mm)				
	Inductance Value (µH)	DC Resistance (mΩ) max.	DC Current Irms (Amps)	DC Current Isat (Amps)	Test Frequency
NPIM110ZR35MTRF	0.35	0.81	47	69	100KHz
NPIM110Z1R0MTRF	1.0	1.59	38.8	42	

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.

NPIM110Z35MTRF

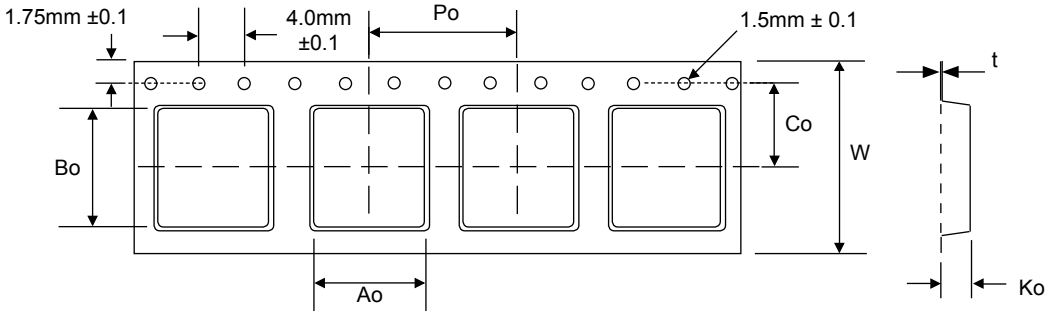


NPIM110Z1R0MTRF



CARRIER TAPE DIMENSIONS (mm)

Series	Ao	Bo	Co	Po	Ko	t	W
NPIM42Z	4.3 ± 0.10	4.4 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	2.4 ± 0.05	0.25 ± 0.05	12.0 ± 0.10
NPIM43Z	4.3 ± 0.10	4.4 ± 0.10	5.5 ± 0.10	8.0 ± 0.10	3.5 ± 0.10	0.35 ± 0.05	12.0 ± 0.10
NPIM75Z	8.2 ± 0.10	7.9 ± 0.10	7.5 ± 0.10	12.0 ± 0.1	5.3 ± 0.10	0.25 ± 0.05	16.0 ± 0.10
NPIM110Z	11.9 ± 0.10	11.1 ± 0.10	11.5 ± 0.10	16.0 ± 0.10	10.2 ± 0.10	0.40 ± 0.10	24.0 ± 0.30



REEL DIMENSIONS (mm)

Series	A	B	Qty/Reel
NPIM42Z	24.5 ± 1.0	30.0 ± 2.0	2,000
NPIM43Z	24.5 ± 1.0	30.0 ± 2.0	2,000
NPIM75Z	16.0 ± 0.5	20.0 ± 2.0	500
NPIM110Z	24.5 ± 1.0	30.0 ± 2.0	250

