

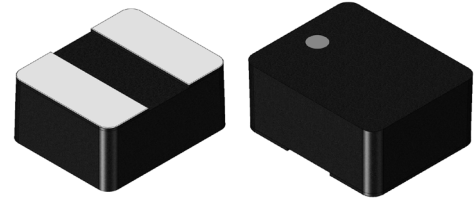
# NPMG Series

## Low Loss Molded Power Inductors



### FEATURES

- EXTREMELY LOW DCR
- ULTRA LOW AC LOSSES
- REDUCED EMI DESIGN
- IMPROVED SATURATION CHARACTERISTICS
- SUPPORTS HIGH SWITCHING FREQUENCIES (UP TO 5 MHZ)
- -55~155°C WIDE TEMPERATURE RANGE



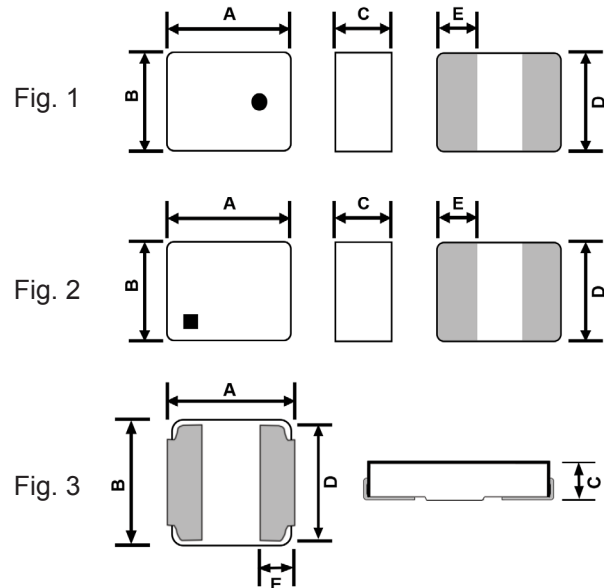
### SPECIFICATIONS

Specifications	Case Size				
	NPMG0806	NPMG1008	NPMG1210	NPMG1212	NPMG0415
Inductance Range	1.0 uH	0.22 ~ 1.5 uH	0.08 ~ 15 uH	0.47 ~ 1.0 uH	0.33 ~ 1.0 uH
	NPMG0420	NPMG0430	NPMG0614	NPMG0615	NPMG0624
	0.33 ~ 3.3 uH	0.33 ~ 6.8 uH	2.2 & 3.3 uH	0.28 & 1.0 uH	0.56 uH
	NPMG0630	NPMG0717	NPMG1330		
Inductance Tolerance	0.1 uH	1.4 uH	1.0 & 1.5 uH	±20% (M)	
Operating Temperature Range	-55°C ~ +155°C (including self-heating)				
Self Resonant Frequency, DC Resistance, Rated DC Current and Inductance Tolerance	See Standard Values and Specifications Table				

### DIMENSIONS (mm)

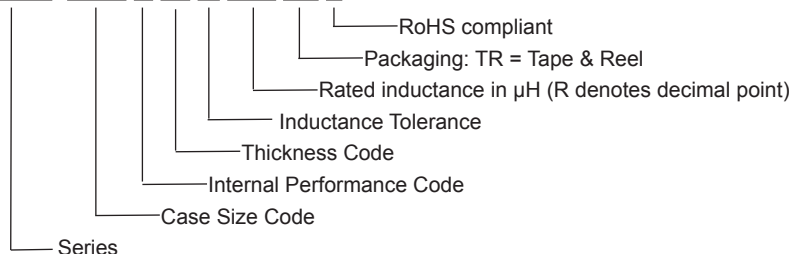
Case Size	Shape	A	B	C Max
NPMG0806	Fig.1	2.0	1.6	1.2
NPMG1008	Fig.1	2.5	2.0	1.2
NPMG1210	Fig.1	3.2	2.5	1.2*
NPMG1212	Fig.1	3.2	3.0	2.0*
NPMG0415	Fig.2	4.0	4.0	1.5
NPMG0420	Fig.2	4.0	4.0	2.0
NPMG0430	Fig.2	4.0	4.0	3.1
NPMG0614	Fig.3	6.5	6.5	1.4
NPMG0615	Fig.2	6.4	6.6	1.5
NPMG0624	Fig.2	7.25	6.6	2.4
NPMG0630	Fig.2	7.1	6.6	3.0
NPMG0717	Fig.2	7.8	7.8	1.7
NPMG1330	Fig.2	12.5	12.5	3.0

\*Thinner C Max. Values available.  
Please See specifications tables for full package dimensions.



### PART NUMBER SYSTEM

NPMG 0806 H 12 M 1R0 TR E



Performance Passives By Design

NIC Components Corp.  
100 Baylis Road. Melville, NY 11747

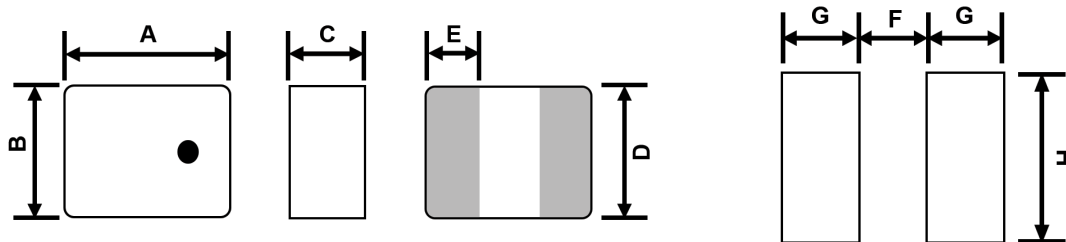
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www.niccomp.com

# NPMG Series

## Low Loss Molded Power Inductors



NIC Part Number	Size & Performance Code	Inductance (uH)	Inductance Tolerance	SRF MHz (Min.)	DCR (mΩ) Max.	Isat Max. (A)	Isat Typ. (A)	Irms Max. (A)
NPMG0806H12M1R0TRF	0806H12	1.0	±20%	60	38.0	4.00	4.40	3.90
NPMG1008S12MR22TRF	1008S12	0.22	±20%	95	8.0	10.00	11.50	5.50
NPMG1008S12M1R0TRF		1	±20%	49	29.0	3.40	3.70	5.00
NPMG1008S12M1R5TRF		1.5	±20%	33	44.0	3.20	3.50	4.50
NPMG1210S09M80NTRF		1210S09	0.08	±20%	242	4.2	14.50	16.50
NPMG1210S10M150TRF	1210S10	15	±20%	9	450.0	1.10	1.30	1.27
NPMG1210S12MR10TRF	1210S12	0.1	±20%	224	4.2	13.00	15.50	7.60
NPMG1210S12MR47TRF		0.47	±20%	75	24.0	9.00	9.90	6.10
NPMG1210S12M1R0TRF		1.0	±20%	43	36.0	6.40	7.10	4.00
NPMG1210E12MR47TRF	1210E12	0.47	±20%	66	13.0	6.50	7.20	7.50
NPMG1210E12MR68TRF		0.68	±20%	50	16.5	5.50	6.50	6.60
NPMG1212E12MR47TRF	1212E12	0.47	±20%	61	12.8	8.00	9.00	7.70
NPMG1212E12MR68TRF		0.68	±20%	49	16.0	7.00	7.70	7.00
NPMG1212S20M1R0TRF	1212S20	1.0	±20%	25	14.8	6.20	8.50	7.50



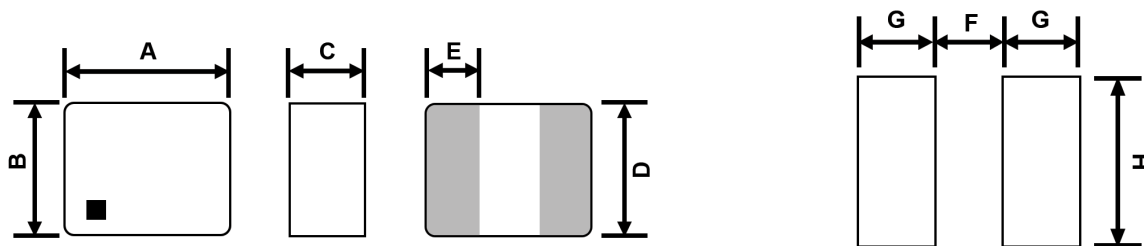
Size & Performance Code	A	B	C Max	D Typ.	E	F	G	H
NPMG0806H12	2.0±0.1	1.6±0.1	1.2	1.60	0.6±0.2	0.7	0.7	1.7
NPMG1008S12	2.5±0.2	2.0±0.2	1.2	2.00	0.8±0.2	0.9	0.8	2.0
NPMG1210S09	3.2±0.2	2.5±0.2	0.9	2.35	0.5±0.3	1.3	0.5	2.5
NPMG1210S10	3.2±0.15	2.5±0.15	1.0	2.50	1.15±0.2	0.8	1.25	2.6
NPMG1210S12	3.2±0.15	2.5±0.15	1.2	2.50	1.15±0.15	0.8	1.2	2.5
NPMG1210E12	3.2±0.2	2.5±0.2	1.2	2.50	1.15±0.2	0.8	1.2	2.5
NPMG1212E12	3.2±0.2	3.0±0.2	1.2	3.00	1.10±0.2	1.0	1.1	3.0
NPMG1212S20	3.2±0.2	3.0±0.2	2.0	2.85	0.8±0.3	1.30	1.00	3.20

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NIC Part Number	Size & Performance Code	Inductance (uH)	Inductance Tolerance	SRF MHz (Min.)	DCR (mΩ) Max.	Isat Max. (A)	Isat Typ. (A)	Irms Max. (A)	
NPMG0415HMR33TRF	0415H	0.33	±20% (M)	83	4.8	13.00	14.50	13.90	
NPMG0415HMR47TRF		0.47	±20% (M)	64	6.1	9.50	11.50	11.30	
NPMG0415HMR68TRF		0.68	±20% (M)	52	9.2	8.00	9.60	9.60	
NPMG0415HM1R0TRF		1.0	±20% (M)	40	12.5	6.00	7.40	8.30	
NPMG0420EMR47TRF	0420E	0.47	±20% (M)	58	4.8	8.50	10.00	16.00	
NPMG0420EMR68TRF		0.68	±20% (M)	48	6.4	7.80	9.00	14.00	
NPMG0420EM1R0TRF		1.0	±20% (M)	38	8.4	6.50	8.00	12.00	
NPMG0420EM1R2TRF		1.2	±20% (M)	35	9.9	5.40	6.20	10.50	
NPMG0420SMR33TRF	0420S	0.33	±20% (M)	79	3.6	15.70	18.10	19.90	
NPMG0420SMR47TRF		0.47	±20% (M)	61	4.5	11.20	13.40	17.00	
NPMG0420SMR68TRF		0.68	±20% (M)	50	6.4	9.80	12.00	12.80	
NPMG0420SMR82TRF		0.82	±20% (M)	40	6.4	8.20	10.40	12.80	
NPMG0420SM1R0TRF		1	±20% (M)	39	8.4	7.60	9.00	11.70	
NPMG0420SM1R5TRF		1.5	±20% (M)	32	13.6	6.30	7.50	9.50	
NPMG0420SM2R2TRF		2.2	±20% (M)	26	22.7	5.60	6.40	7.80	
NPMG0420SM3R3TRF		3.3	±20% (M)	18	28.6	4.70	5.40	6.60	
NPMG0430SMR33TRF		0430S	0.33	±20% (M)	76.4	2.2	18.80	21.40	19.40
NPMG0430SMR47TRF			0.47	±20% (M)	62.4	3.1	15.60	17.70	17.00
NPMG0430SMR68TRF	0.68		±20% (M)	50.0	3.9	14.30	16.30	14.10	
NPMG0430SM1R0TRF	1.0		±20% (M)	42.7	5.7	11.90	13.50	12.60	
NPMG0430SM1R5TRF	1.5		±20% (M)	33.7	8.6	9.60	11.00	9.80	
NPMG0430SM2R2TRF	2.2		±20% (M)	24.5	11.8	7.10	8.10	9.00	
NPMG0430SM3R3TRF	3.3		±20% (M)	21.6	17.7	5.30	5.80	8.00	
NPMG0430SM4R7TRF	4.7		±20% (M)	18.6	23.4	4.80	5.50	6.10	
NPMG0430SM6R8TRF	6.8		±20% (M)	14.3	37.4	4.10	4.80	4.60	



Series & Size Code	A	B	C Max	D Typ.	E	F	G	H
NPMG0415	4.0±0.3	4.0±0.3	1.5	4.1	1.2±0.3	1.50	1.30	4.10
NPMG0420			2.0					
NPMG0430			3.1					

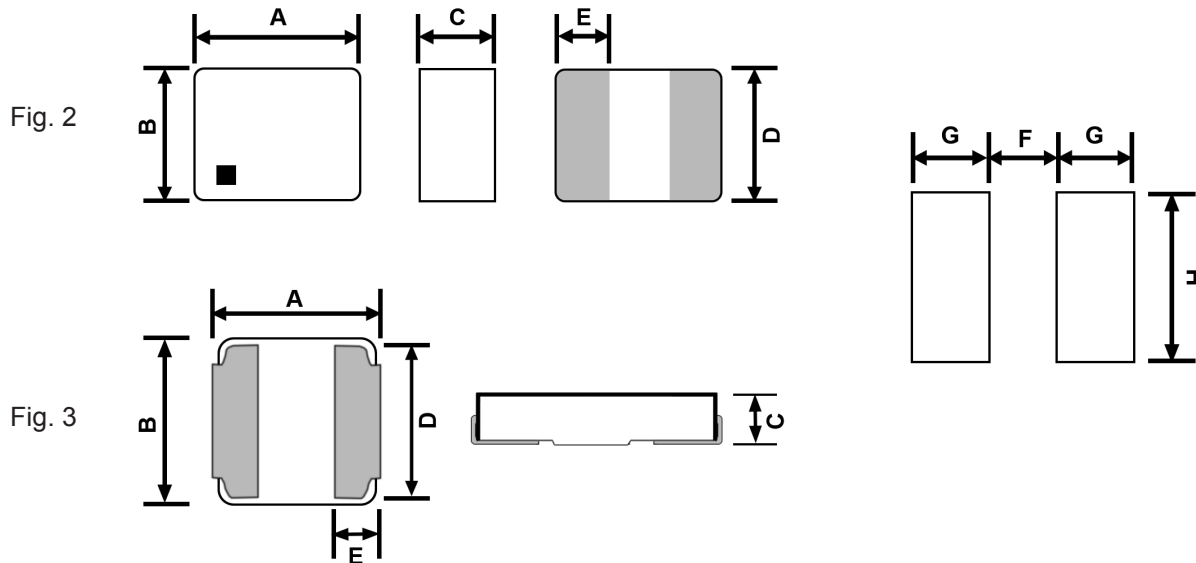
### Performance Passives By Design

# NPMG Series

## Low Loss Molded Power Inductors



NIC Part Number	Size & Performance Code	Inductance (uH)	Inductance Tolerance	SRF MHz (Min.)	DCR (mΩ) Max.	Isat Max. (A)	Isat Typ. (A)	Irms Max. (A)
NPMG0614SM2R2TRF	0614S	2.2	±20% (M)	31.2	34.0	6.00	6.60	4.20
NPMG0614SM3R3TRF		3.3	±20% (M)	14.9	55.0	5.00	5.50	3.50
NPMG0615SMR28TRF	0615S	0.28	±20% (M)	57.3	4.5	23.00	26.50	18.00
NPMG0615SM1R0TRF		1.0	±20% (M)	25.3	11.5	11.00	13.00	11.50
NPMG0624SMR56TRF	0624S	0.56	±20% (M)	40.5	6.5	22.00	25.00	11.70
NPMG0630SMR10TRF	0630S	0.1	±20% (M)	107.1	0.8	64.0	73.0	27.00
NPMG0717SM1R4TRF	0717S	1.4	±20% (M)	17.9	10.8	12.0	14.00	11.70
NPMG1330SEM1R0TRF	1330S	1.0	±20% (M)	16.1	2.91	25.0	30.0	17.0
NPMG1330SEM1R5TRF		1.5	±20% (M)	10.7	3.0	21.0	23.0	17.0



Series, Size & Performance Code	Shape	A	B	C Max	D Typ.	E	F	G	H
NPMG0614S	Fig.3	6.5±0.2	6.5±0.2	1.4	6.0±0.2	1.8±0.2	2.60	2.10	6.40
NPMG0615S	Fig.2	6.4±0.2	6.6±0.2	1.5	6.6	2.1±0.2	1.80	2.50	6.80
NPMG0624S	Fig.2	7.25±0.3	6.6±0.2	2.4	3.0	2.0±0.2	3.70	2.35	3.50
NPMG0630S	Fig.2	7.1±0.3	6.6±0.2	3.0	3.0	1.6±0.3	3.70	2.35	3.50
NPMG0717S	Fig.2	7.8±0.2	7.8±0.2	1.7	7.8	2.6±0.2	2.35	2.85	8.00
NPMG1330S	Fig.2	12.5±0.5	12.5±0.5	3.0	12.5	4.0±0.5	4.30	4.20	12.7

# NPMG Series

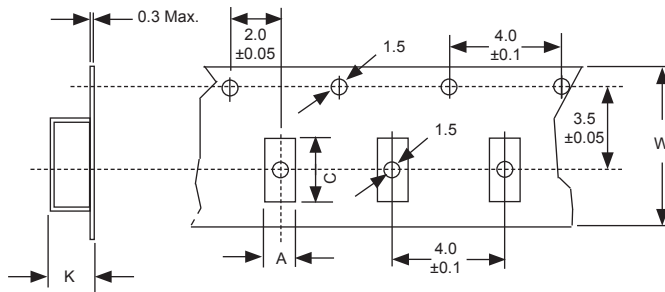
## Low Loss Molded Power Inductors



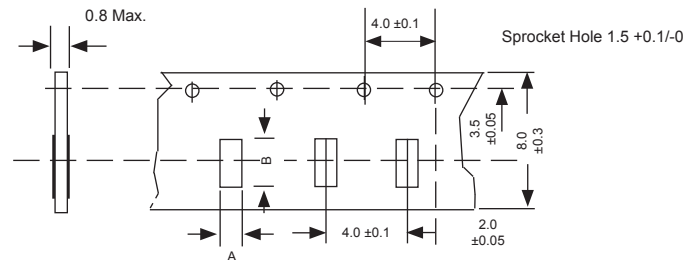
### CARRIER DIMENSIONS & REEL QUANTITY (mm)

TYPE	A0	B0	W	E	F	P0	P1	P2	D0	T	K0
NPMG0806	1.9 ± 0.1	2.3 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.25 +0.1/-0	1.4 ± 0.1
NPMG1008	2.3 ± 0.05	2.8±0.05	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG1210S09	2.8 ± 0.1	3.5 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG1210S10	2.8 ± 0.1	3.5 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG1210S12	2.8 ± 0.1	3.5 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG1210E12	2.8 ± 0.1	3.5 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG1212E12	3.4 ± 0.1	3.6 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG1212S20	3.4 ± 0.1	3.6 ± 0.1	8.0 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.1	2.0 ± 0.05	1.5+0.1/-0.0	0.25 +0.03	1.4 ± 0.1
NPMG0415	4.5 ± 0.1	4.5 ± 0.1	12 ± 0.2	1.75 ± 0.1	5.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.4 ± 0.02	1.9 ± 0.1
NPMG0420	4.5 ± 0.1	4.5 ± 0.1	12 ± 0.2	1.75 ± 0.1	5.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.35 ± 0.03	2.35 ± 0.1
NPMG0430	4.5 ± 0.1	4.5 ± 0.1	12 ± 0.2	1.75 ± 0.1	5.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.4 ± 0.02	3.3 ± 0.1
NPMG0614	6.8 ± 0.1	6.9 ± 0.1	16 ± 0.1	1.75 ± 0.1	7.5 ± 0.1	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.35 ± 0.03	1.7 ± 0.1
NPMG0630	6.9 ± 0.1	7.4 ± 0.1	16 ± 0.3	1.75 ± 0.1	7.5 ± 0.1	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.40 ± 0.03	3.4 ± 0.1
NPMG0717	8.2 ± 0.1	8.2 ± 0.1	16 ± 0.3	1.75 ± 0.1	7.5 ± 0.1	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.40 ± 0.03	3.4 ± 0.1
NPMG1330	13.3 ± 0.1	13.3 ± 0.1	24 ± 0.3	1.75 ± 0.1	11.5 ± 0.1	4.0 ± 0.1	20.0±0.1	2.0 ± 0.1	1.5+0.1/-0.0	0.40 ± 0.05	3.4 ± 0.1

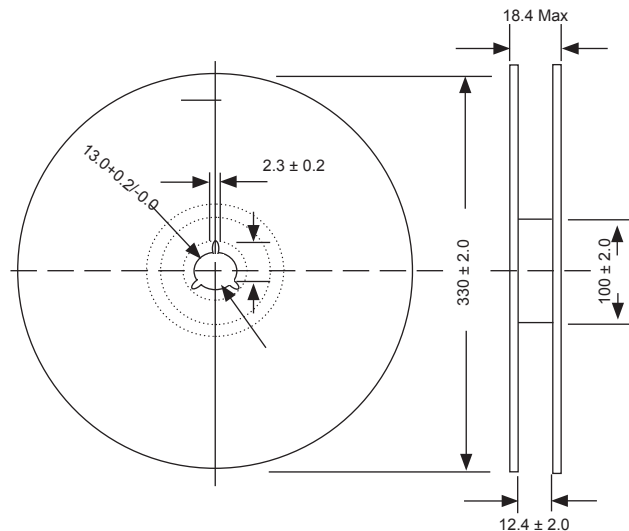
### EMBOSSED PLASTIC CARRIER DIMENSIONS (mm)



### PAPER CARRIER DIMENSIONS (mm)



### REEL DIMENSIONS (mm)



Performance Passives By Design