PA5006.471NLT Datasheet

DiGi Electronics Part Number	PA5006.471NLT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PA5006.471NLT
Description	FIXED IND 470NH 17A 6.2MOHM SMD
Detailed Description	470 nH Shielded Molded Inductor 17 A 6.2mOhm Max Nonstandard

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
PA5006.471NLT	Pulse Electronics
Series:	Product Status:
PA5006.XXXNLT	Active
Type:	Material - Core:
Molded	Ferrite
Inductance:	Tolerance:
470 nH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
17 A	28A
Shielding:	DC Resistance (DCR):
Shielded	6.2mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-40°C ~ 125°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.307" L x 0.299" W (7.80mm x 7.60mm)
Height - Seated (Max):	
0.081" (2.05mm)	

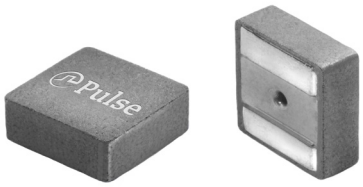
Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.4000	

SMT Power Inductors

High Current Composite Inductor - PA5006.XXXNLT and PM2206.XXXNLT

Pulse a YAGEO company



- ***Height:*** *2.05mm Max*
- ***Footprint:*** *8.05mm x 7.8mm Max*
- ***Current Rating:*** *up to 35Apk*
- ***Inductance Range****: 0.27uH to 1.0uH*
- *High current, low DCR, and high efficiency*
- *Rated Voltage between Terminals: 60V*
- *Minimized acoustic noise and minimized leakage flux noise*
- *Available in Commercial (PA5006) and Automotive (PM2206) grades*

Electrical Specifications @ 25°C, Operating Temperature Range -55°C to +155°C

Part Number		▽ Inductance 100KHz, 0.1V	Rated[3] Current	DC Resistance		Saturation[2] Current (25°C)	Mechanical D	K Factor for Core Loss
Commerical	Automotive[6]			TYP.	MAX.			
		uH±20%	A	mΩ	mΩ	A	mm±0.3	
PA5006.271NLT	PM2206.271NLT	0.27	21	2.9	3.5	32	6.6	141.7
PA5006.311NLT	PM2206.311NLT	0.31	20	4.0	4.8	31	6.2	141.7
PA5006.331NLT	PM2206.331NLT	0.33	19	4.0	4.8	31	6.2	141.7
PA5006.471NLT	PM2206.471NLT	0.47	17	5.1	6.2	25	6.2	103.9
PA5006.681NLT	PM2206.681NLT	0.68	13	7.9	9.2	23	6.2	82.1
PA5006.102NLT	PM2206.102NLT	1.00	11	9.8	10.8	20	6.2	67.8

Notes:

1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance is guaranteed to drop by no more than 40%. The typical inductance at a specified current can be found on the typical performance curves.
3. The rated current is the DC current required to raise the component temperature by approximately 40 ° C. Take note that the components' performanc varies depending on the system condition. It is suggested that the component be tested at the system level, to verify the temperature rise of the component during system operation.
4. The part temperature (ambient+temp rise) should not exceed 155 ° C under worst case operating conditions. Circuit design, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
5. The PM2206.XXXNLT part numbers are AEC-Q200 and IATF16949 certified. The mechanical dimensions are 100% tested in production but do not necessarily meet a product capability index (Cpk) >1.33 and therefore may not strictly conform to PPAP.
6. Special Characteristics ▽

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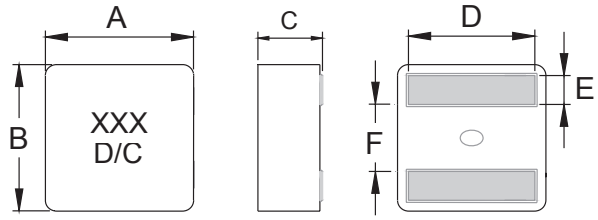
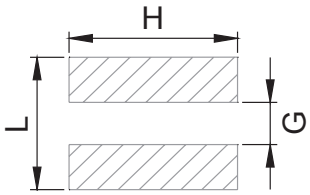
Mechanical

PA5006.XXXNLT and PM2206.XXXNLT



FINAL LAYOUT

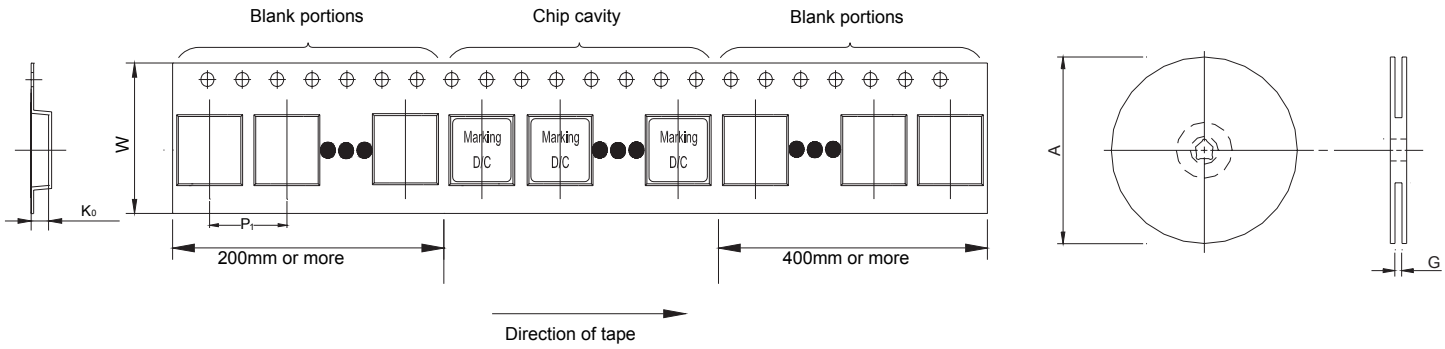


SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	F	L	G	H
PA5006/PM2206	7.8±0.25	7.6±0.2	1.85±0.2	See Spec Table	1.75±0.2	3.15±0.25	7.4 (REF)	2.8(REF)	7.2 (REF)

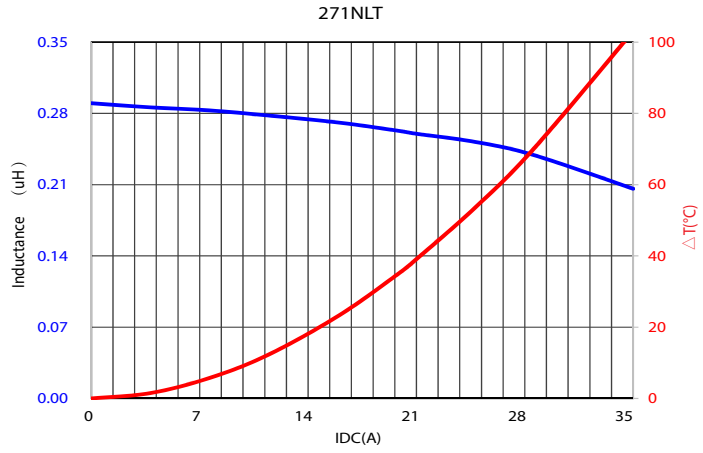
All Dimensions in mm.

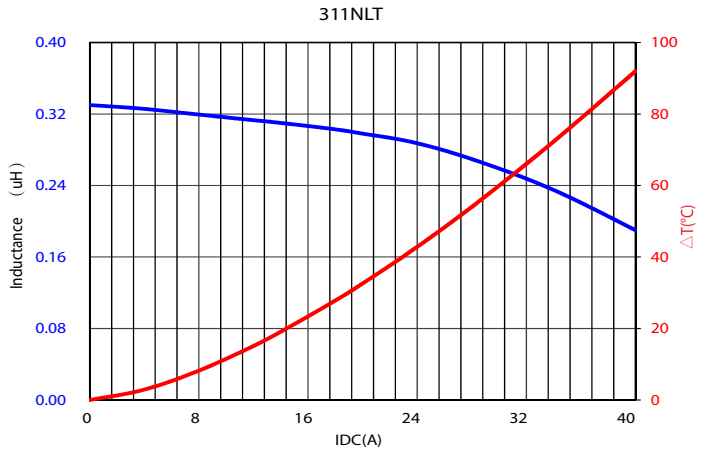
TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST						
	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P_1	W	K_0	PCS/REEL
PA5006/PM2206	Ø330	16.4	12	16	2.3	2000

Typical Performance Curves

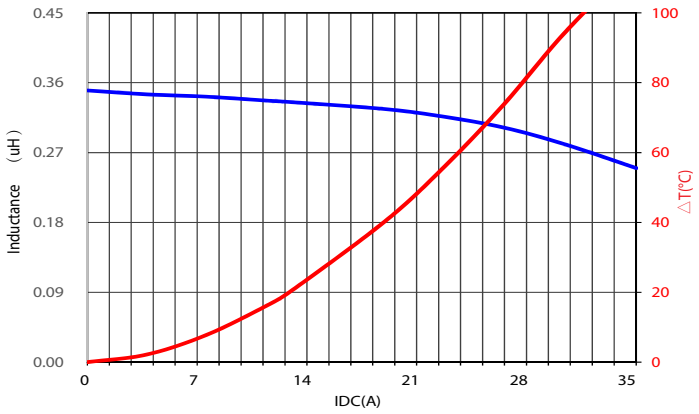




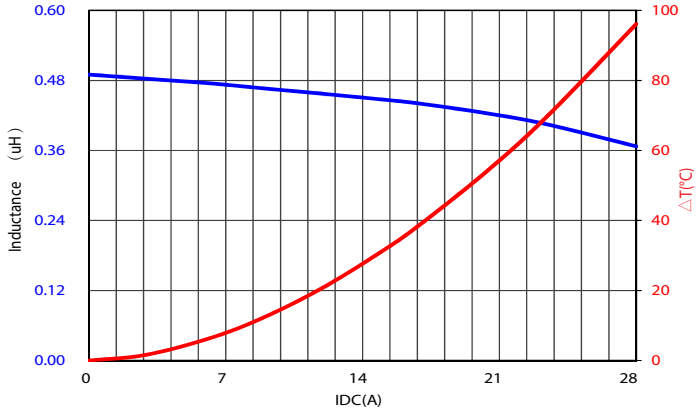
SMT Power Inductors

High Current Composite Inductor - PA5006.XXXNLT and PM2206.XXXNLT

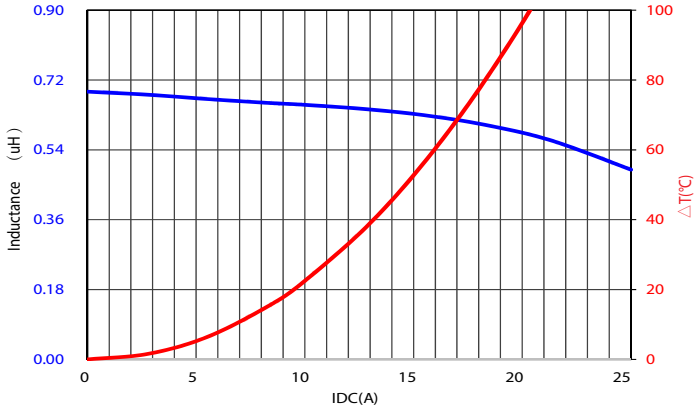
331NLT



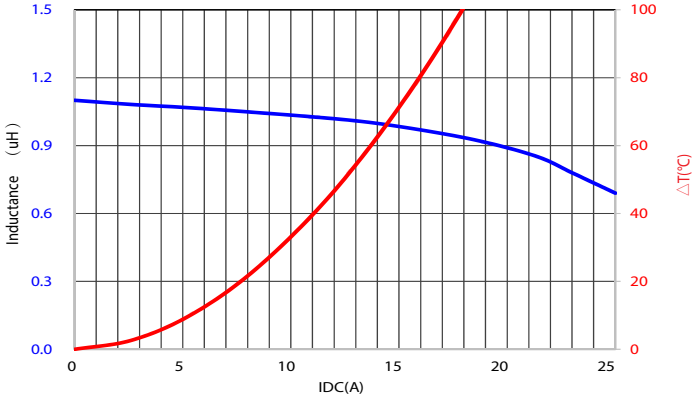
471NLT



681NLT



102NLT



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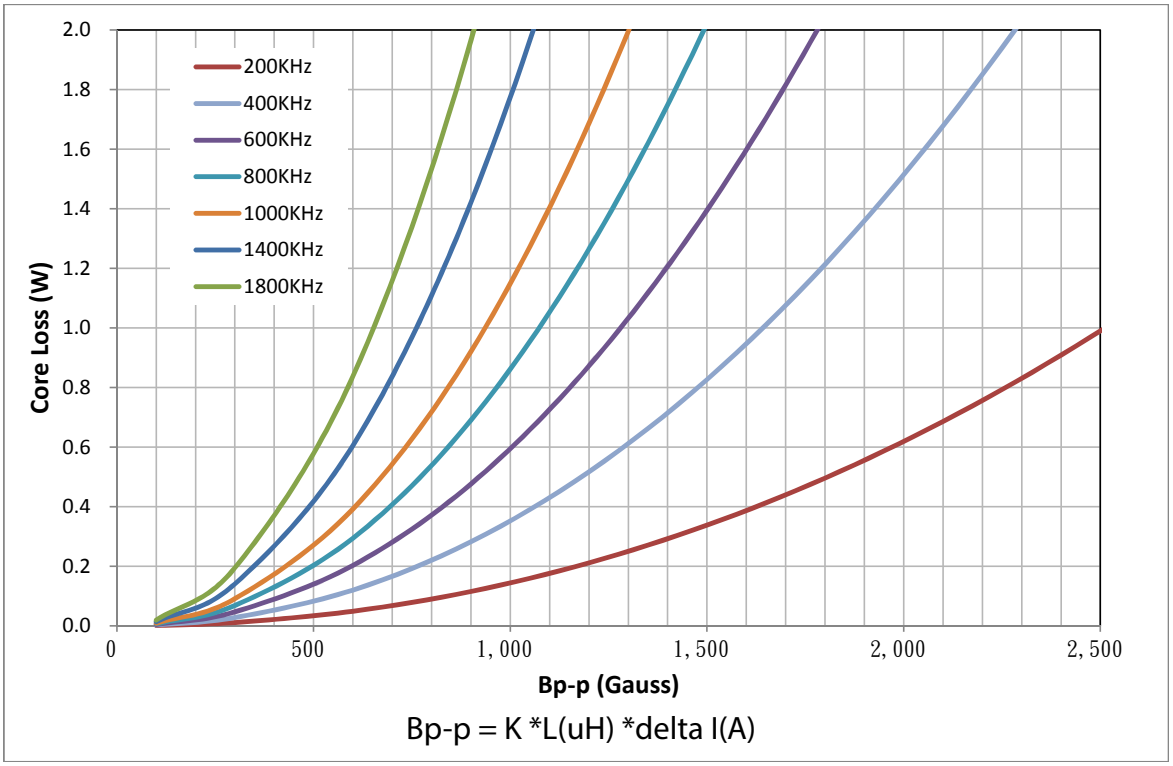
CORE LOSS vs FLUX DENSITY



Bp-p = K *L(uH) *delta I(A)

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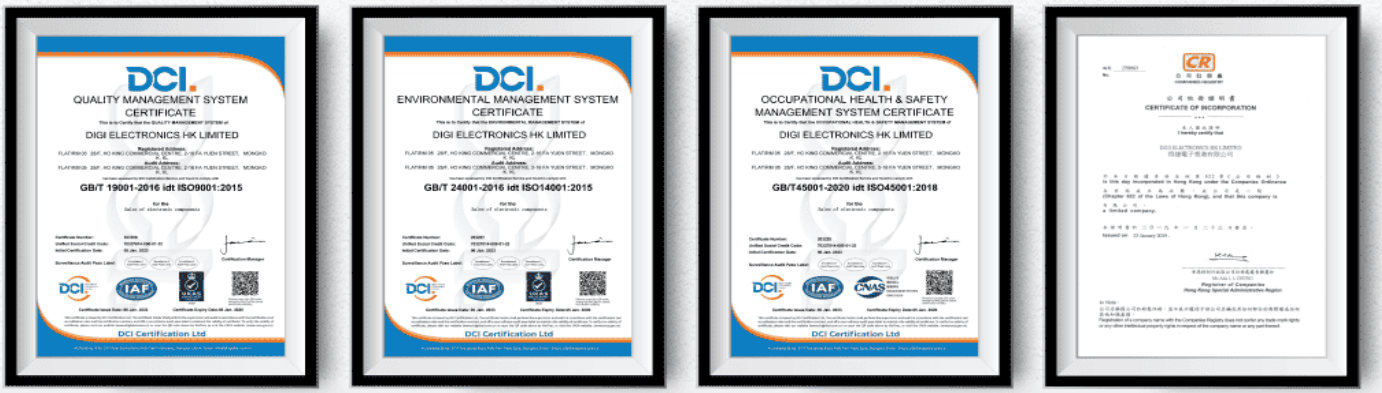

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