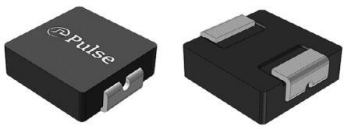
PA5449.473NLT Datasheet



DiGi Electronics Part Number	PA5449.473NLT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PA5449.473NLT
Description	FIXED IND 47UH 2.5A 225MOHM SMD
Detailed Description	47 µH Shielded Molded Inductor 2.5 A 225mOhm Max Nonstandard

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
PA5449.473NLT	Pulse Electronics
Series:	Product Status:
PA5449.xxxNLT	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
47 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
2.5 A	2.9A
Shielding:	DC Resistance (DCR):
Shielded	225mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-55°C ~ 125°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.346" L x 0.323" W (8.80mm x 8.20mm)
Height - Seated (Max):	
0.118" (3.00mm)	

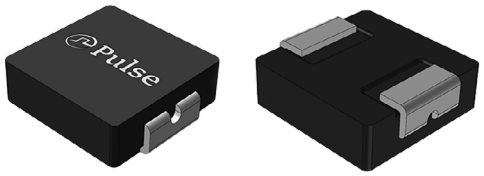
Environmental & Export classification

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

SMT Power Inductor

Molded Power Inductor - PA5449.XXXNLT and PM5449.XXXNLT

Pulse
a YAGEO company



- **Height:** *4.0mm Max*
- **Footprint:** *9.2mm x 8.5mm Max*
- **Current Rating:** *up to 36A*
- **Inductance Range:** *0.22uH to 47uH*
- *High current, low DCR, and high efficiency*
- *Shielded construction and compact design*
- *Minimized acoustic noise and minimized leakage flux noise*
- *Available in Commercial (PA) and automotive (PM) grades*

Electrical Specifications @ 25°C - Operating Temperature -55C to 125C

Commerical[6,7]	Automotive[6,7]	Inductance 100KHz, 1.0V	Rated[3] Current	DC Resistance		Saturation[2] Current
			TYP.	TYP.	MAX.	TYP.
		uH±20%	A	mΩ	mΩ	A
PA5449.221NLT	PM5449.221NLT	0.22	30	1.6	1.8	55
PA5449.331NLT	PM5449.331NLT	0.33	25	2	2.4	40
PA5449.471NLT	PM5449.471NLT	0.47	25	2.5	2.8	36
PA5449.561NLT	PM5449.561NLT	0.56	22	2.8	3.2	23
PA5449.681NLT	PM5449.681NLT	0.68	21	3.4	3.8	22
PA5449.821NLT	PM5449.821NLT	0.82	19	4	4.4	19
PA5449.102NLT	PM5449.102NLT	1.0	17	4.2	4.62	17
PA5449.152NLT	PM5449.152NLT	1.5	15	6.9	7.6	15
PA5449.182NLT	PM5449.182NLT	1.8	12.5	9.2	11	13.5
PA5449.222NLT	PM5449.222NLT	2.2	12	10.3	11.4	12
PA5449.332NLT	PM5449.332NLT	3.3	10	13	15	11
PA5449.472NLT	PM5449.472NLT	4.7	8.5	23	26.5	10.5
PA5449.562NLT	PM5449.562NLT	5.6	8.0	25	30	10
PA5449.682NLT	PM5449.682NLT	6.8	7.0	32	36.8	8
PA5449.822NLT	PM5449.822NLT	8.2	6.0	40	46	7.7
PA5449.103NLT	PM5449.103NLT	10	5.5	51	59	7
PA5449.153NLT	PM5449.153NLT	15	4.8	61	71	4.9
PA5449.223NLT	PM5449.223NLT	22	4.2	98	113	4.5
PA5449.333NLT	PM5449.333NLT	33	3.0	135	156	3.3
PA5449.473NLT	PM5449.473NLT	47	2.5	195	225	2.9

SMT Power Inductor

Molded Power Inductor - PA5449.XXXNLT and PM5449.XXXNLT

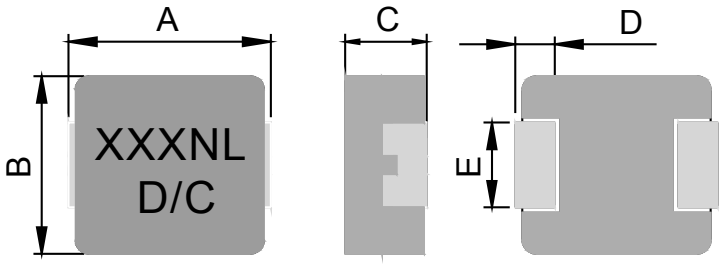
Pulse a YAGEO company

Notes:

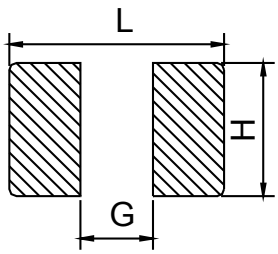
1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by placing the compnent in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effect) to the component.
3. The rated current is the DC current required to raise the component temperature by approximately 40˚C. Take note that the components' performance 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 125˚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. Please note that the inductance tolerance of all parts are ±20%, except those indicated by an * which are +/- 30%.
6. Parts shown in bold are standard catalog parts and are available through sample stock and distribution. Parts in lighter font are available but are not necessarily held in sample stock or distribution and lead times may be longer. Please contact Pulse for availablity.
7. The PM prefix parts are AEC-Q200 qualified and has full automotive IATF16949 certification. 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.
8. Special characteristics ▽

Mechanical

PA5449/PM5449



FINAL LAYOUT

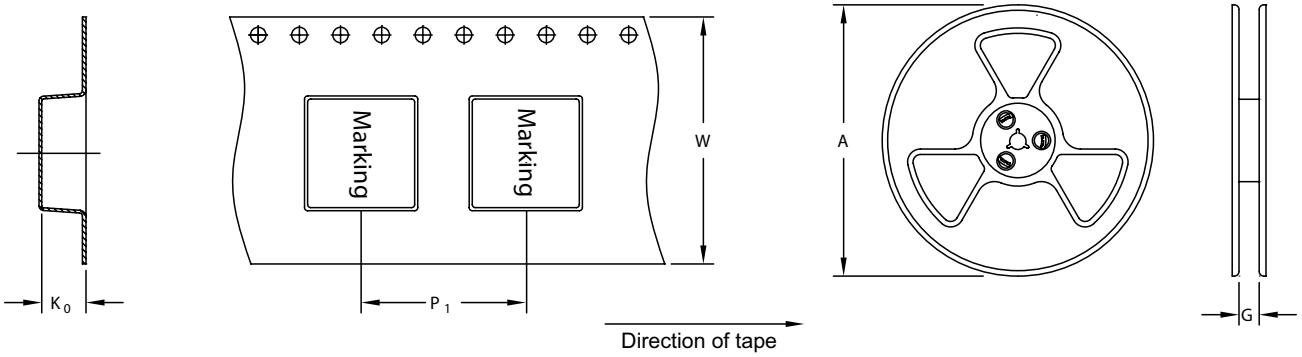


SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	L	G	H
PA5449/PM5449	8.8±0.4	8.2±0.3	3.8±0.2	1.4±0.3	5.0±0.3	9.5	4.0	5.5

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**
PA5449/PM5449	Ø330	16.4	16	24	4.5	800

SMT Power Inductor

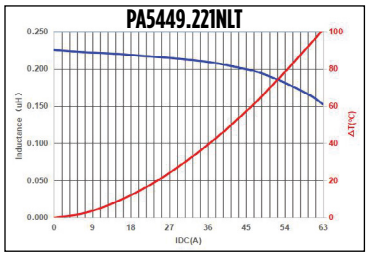
Molded Power Inductor - PA5449.XXXNLT and PM5449.XXXNLT

Pulse a YAGEO company

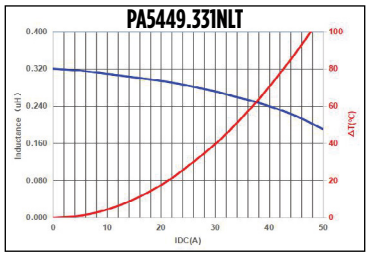
Typical Performance Curves

PA5449/PM5449

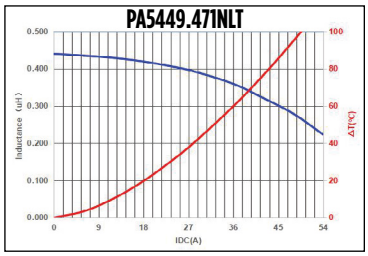
PA5449.221NLT



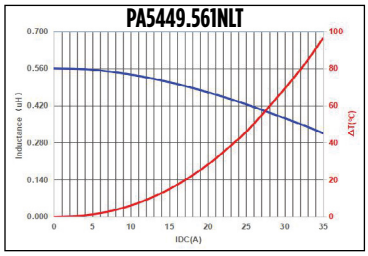
PA5449.331NLT



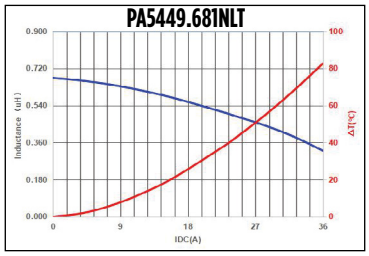
PA5449.471NLT



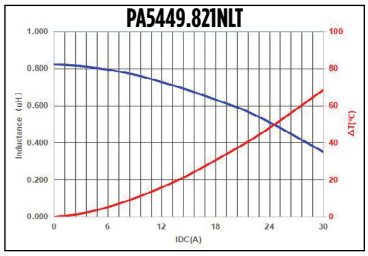
PA5449.561NLT



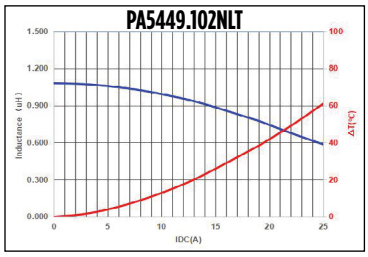
PA5449.681NLT



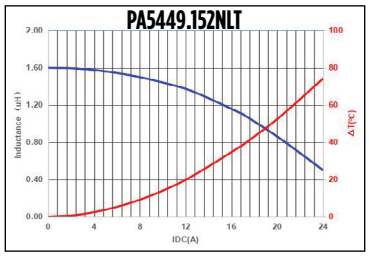
PA5449.821NLT



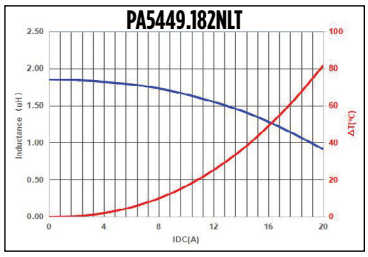
PA5449.102NLT



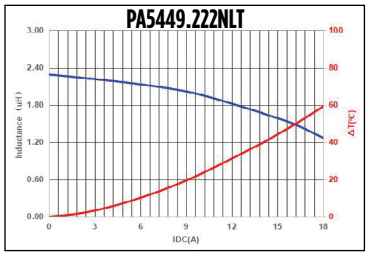
PA5449.152NLT



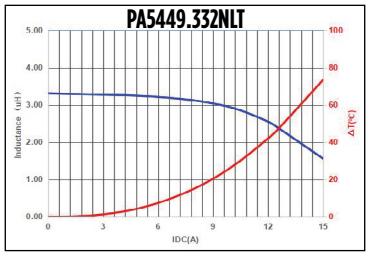
PA5449.182NLT



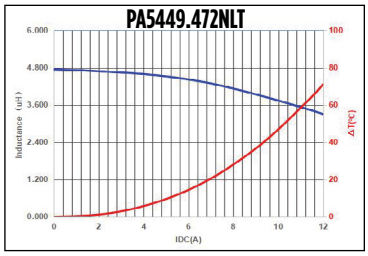
PA5449.222NLT



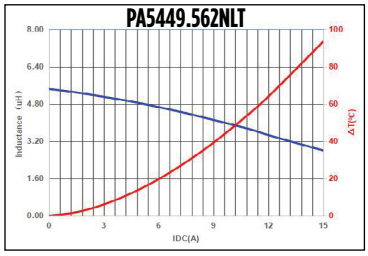
PA5449.332NLT



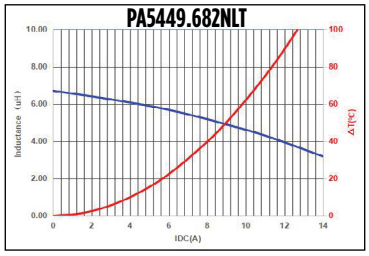
PA5449.472NLT



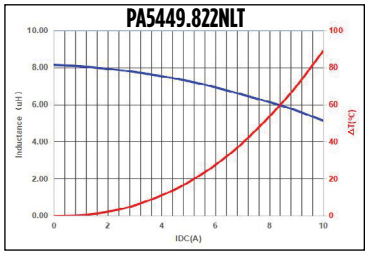
PA5449.562NLT



PA5449.682NLT

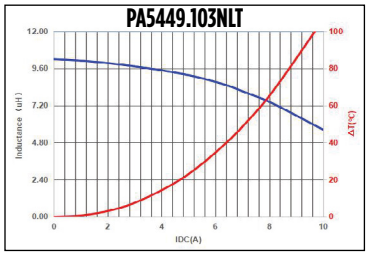


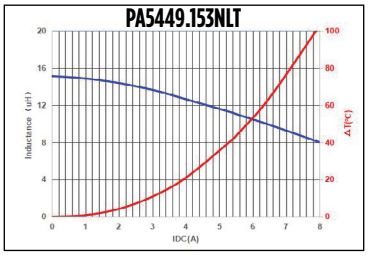
PA5449.822NLT

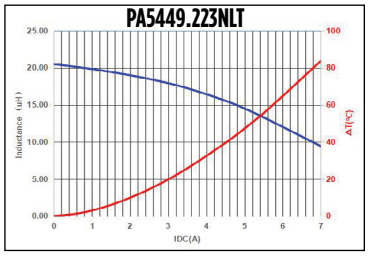


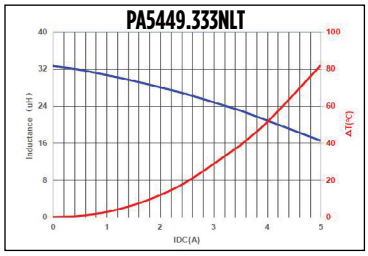
SMT Power Inductor

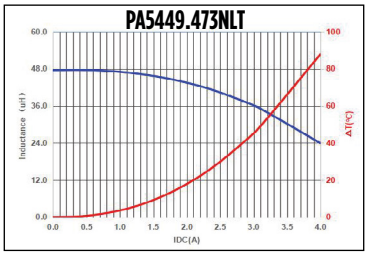
Molded Power Inductor - PA5449.XXXNLT and PM5449.XXXNLT











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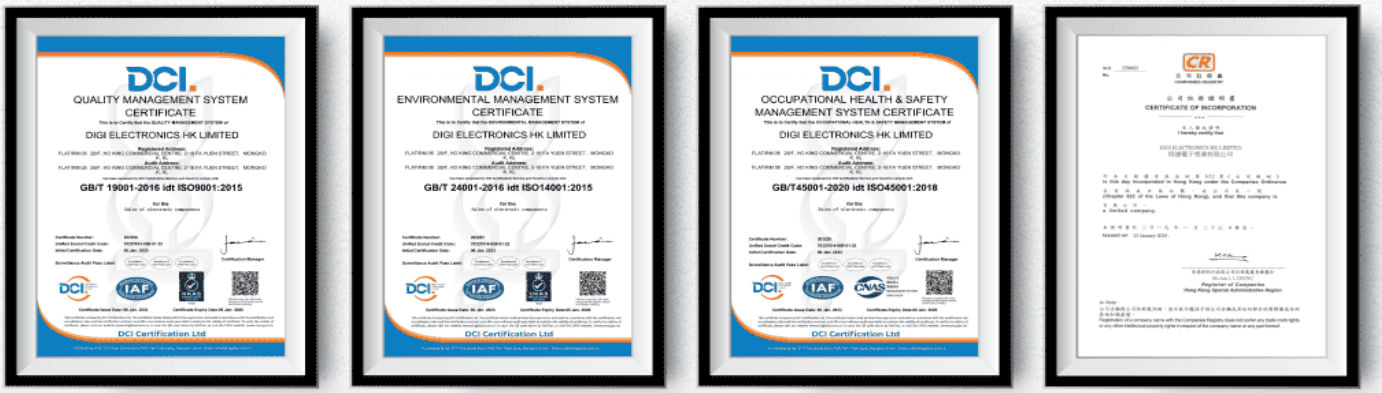

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