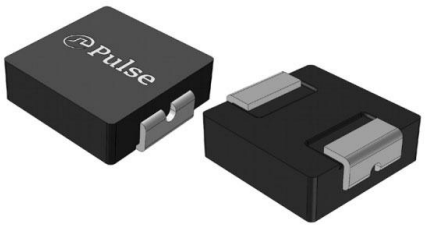
PA5447.151NLT Datasheet



DiGi Electronics Part Number	PA5447.151NLT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PA5447.151NLT
Description	FIXED IND 150NH 18A 2.6MOHM SMD
Detailed Description	150 nH Shielded Molded Inductor 18 A 2.6mOhm Max Nonstandard

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
PA5447.151NLT	Pulse Electronics
Series:	Product Status:
PA5447.xxxNLT	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
150 nH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
18 A	34A
Shielding:	DC Resistance (DCR):
Shielded	2.6mOhm 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:
-	0.276" L x 0.260" W (7.00mm x 6.60mm)
Height - Seated (Max):	
0.071" (1.80mm)	

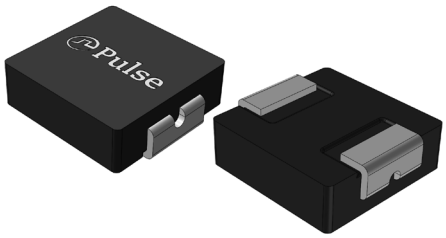
Environmental & Export classification

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 - PA5447.XXXNLT and PM5447.XXXNLT Series

Pulse
a YAGEO company



- **Height:** *1.8mm Max*
- **Footprint:** *7.3mm x 6.9mm Max*
- **Current Rating:** *up to 18A*
- **Inductance Range:** *0.10uH to 33.0uH*
- *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 -55°C to +125°C

Part Number[6,7]		Inductance[5,8] (100KHz, 1.0V)	Rated[3] Current	DC Resistance		Saturation[2] Current
			TYP.	TYP.	MAX.	TYP.
Commerical	Automotive	uH±20%	A	mΩ	mΩ	A
PA5447.101NLT	PM5447.101NLT	0.10*	18	2.1	2.5	45
PA5447.151NLT	PM5447.151NLT	0.15	18	2.2	2.6	34
PA5447.181NLT	PM5447.181NLT	0.18*	17	2.5	3.0	32
PA5447.221NLT	PM5447.221NLT	0.22	16	2.5	3.0	26
PA5447.331NLT	PM5447.331NLT	0.33	14	4.8	5.8	22
PA5447.471NLT	PM5447.471NLT	0.47	12	6.4	7.4	18
PA5447.561NLT	PM5447.561NLT	0.56	11	8.5	10.0	17.5
PA5447.681NLT	PM5447.681NLT	0.68	10	9.5	11.0	17
PA5447.821NLT	PM5447.821NLT	0.82	8.5	11.5	14.0	15.5
PA5447.102NLT	PM5447.102NLT	1.00	7.0	14.5	17.0	14
PA5447.122NLT	PM5447.122NLT	1.20	6.5	20	24.0	13.5
PA5447.152NLT	PM5447.152NLT	1.50	6.0	21	25.2	13
PA5447.222NLT	PM5447.222NLT	2.20	6.0	31	35.0	11
PA5447.332NLT	PM5447.332NLT	3.30	5.0	40	46.0	9
PA5447.472NLT	PM5447.472NLT	4.70	4.0	68	76.0	7
PA5447.562NLT	PM5447.562NLT	5.60	3.5	78	86.0	6
PA5447.682NLT	PM5447.682NLT	6.80	3.0	93	104.0	5.5
PA5447.822NLT	PM5447.822NLT	8.20	2.6	123	140.0	4.5
PA5447.103NLT	PM5447.103NLT	10.0	2.3	143	160.0	3.5
PA5447.153NLT	PM5447.153NLT	15.0	2.0	240	280.0	3.0
PA5447.223NLT	PM5447.223NLT	22.0	1.8	300	360.0	2.5
PA5447.333NLT	PM5447.333NLT	33.0	1.3	550	650.0	2.1

SMT Power Inductor

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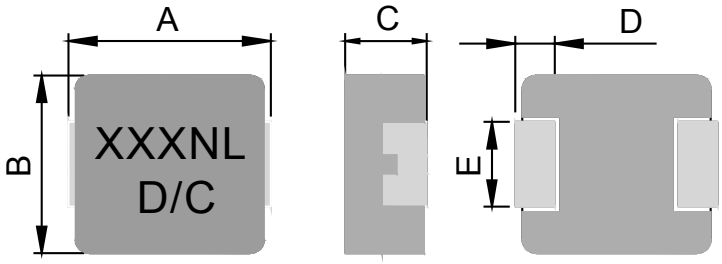
Notes:

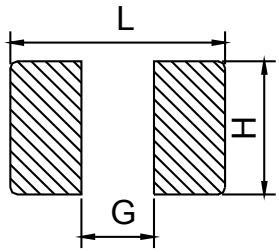
1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance drops by approximately 30% at the stated ambient temperature. The maximum allowable drop at this stated current is 40% of the initial inductance. This current is determined by placing the component 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' 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 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

PA5447/PM5447



FINAL LAYOUT

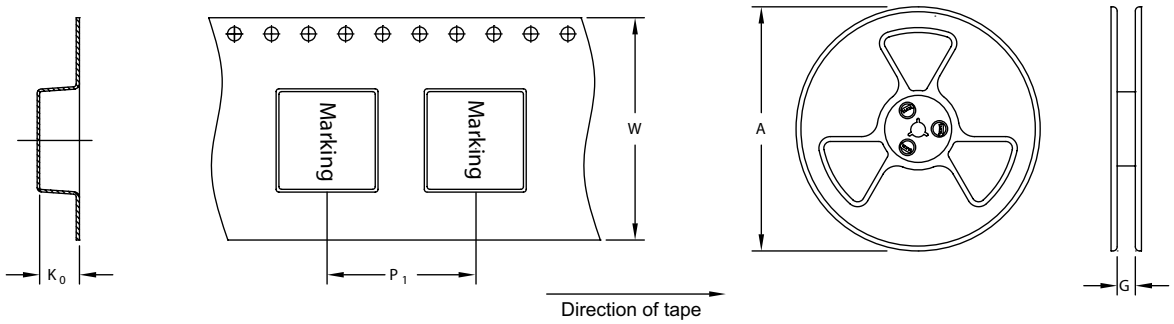


SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	L	G	H
PA5447/PM5447	7.0±0.3	6.6±0.3	1.6±0.2	1.8±0.3	3.0±0.3	7.7	2.5	3.5

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**
PA5447/PM5447	Ø330	16.4	12	16	2.1	2000

SMT Power Inductor

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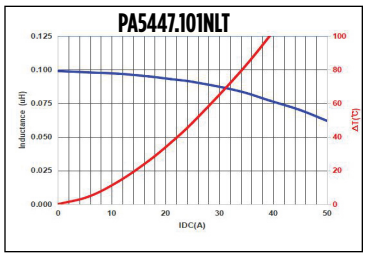
Pulse a YAGEO company

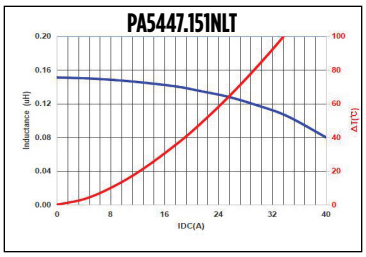
Typical Performance Curves

PA5447/PM5447

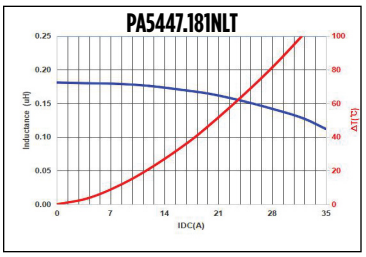
PA5447.101NLT



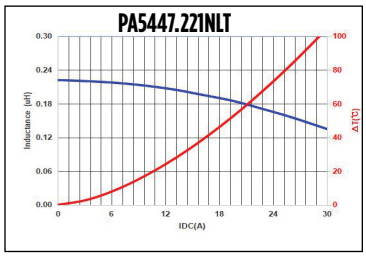
PA5447.151NLT



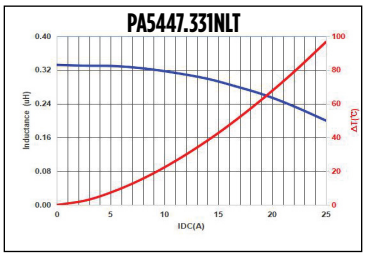
PA5447.181NLT



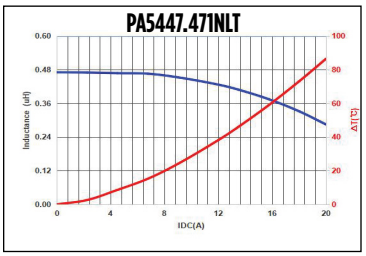
PA5447.221NLT



PA5447.331NLT



PA5447.471NLT



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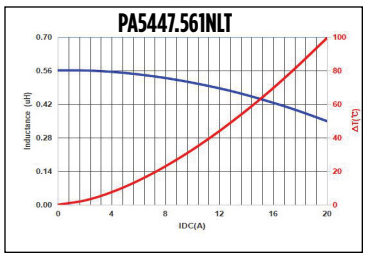
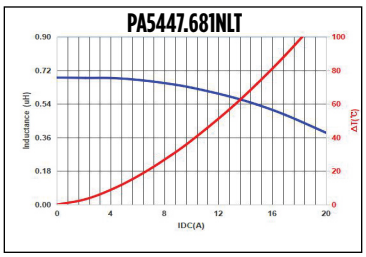
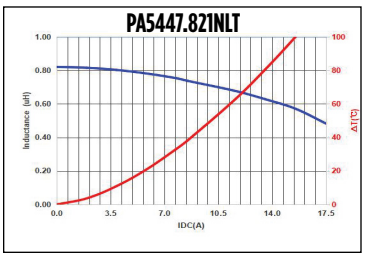


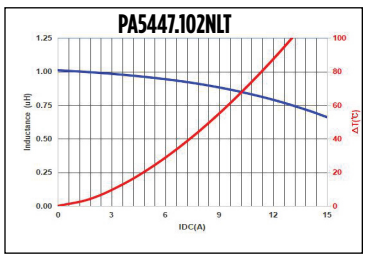
PA5447.681NLT



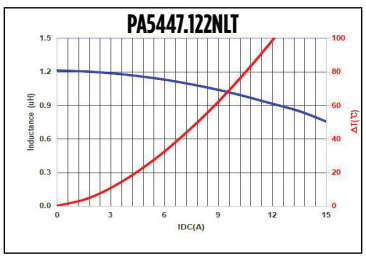
PA5447.821NLT



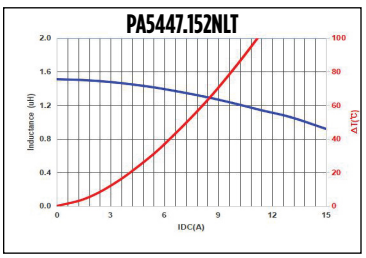
PA5447.102NLT



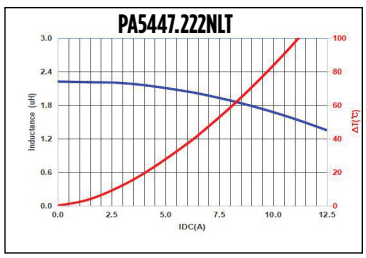
PA5447.122NLT



PA5447.152NLT



PA5447.222NLT



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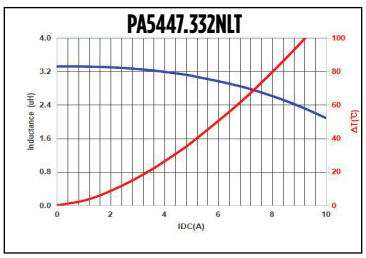
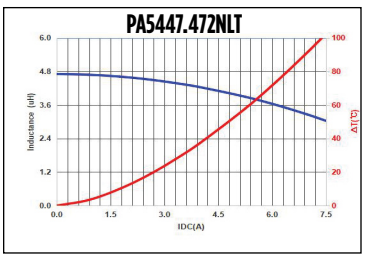
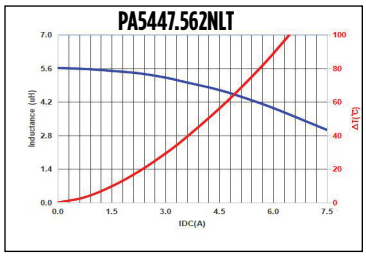


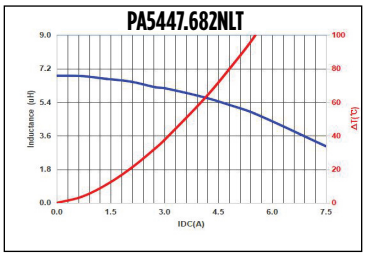
PA5447.472NLT

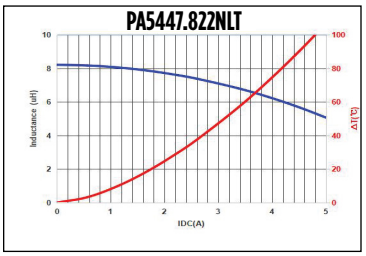


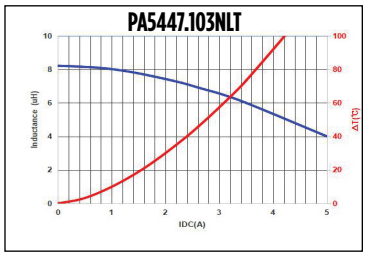
SMT Power Inductor

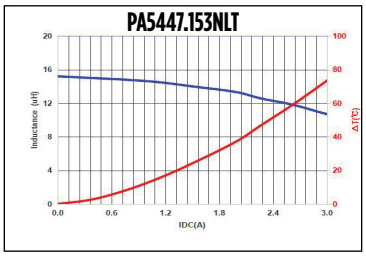
Molded Power Inductor - PA5447.XXXNLT and PM5447.XXXNLT Series

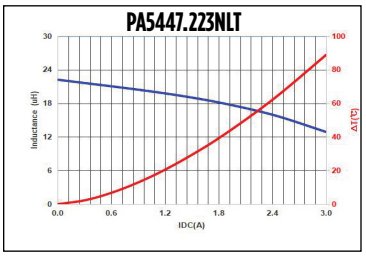


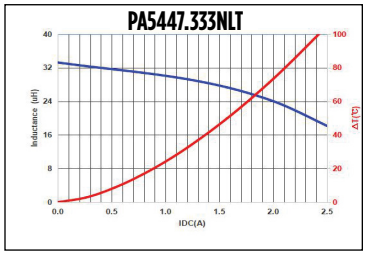












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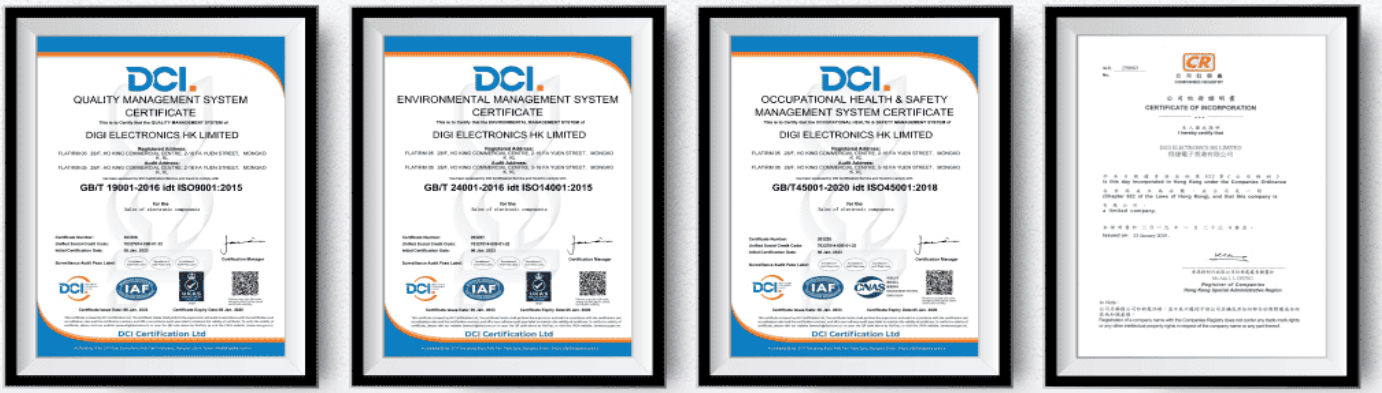

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