PA4345.122NLT Datasheet

DiGi Electronics Part Number	PA4345.122NLT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PA4345.122NLT
Description	FIXED IND 1.2UH 6.2A 28 MOHM SMD
Detailed Description	1.2 µH Shielded Molded Inductor 6.2 A 28mOhm Max Nonstandard

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
PA4345.122NLT	Pulse Electronics
Series:	Product Status:
PA4345.XXXNLT	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
1.2 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
6.2 A	11A
Shielding:	DC Resistance (DCR):
Shielded	28mOhm 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:
-	0.236" L x 0.213" W (6.00mm x 5.40mm)
Height - Seated (Max):	
0.079" (2.00mm)	

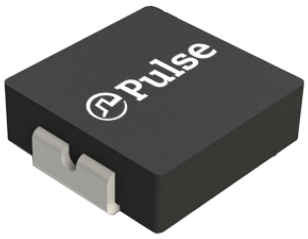
Environmental & Export classification

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

SMT Power Inductor

High Current Molded Power Inductor - PA4345.XXXNLT & PM4345.XXXNLT Series

Pulse a YAGEO company



- ***Height:*** *2.0mm Max*
- ***Footprint:*** *6mm x 5.4mm Max*
- ***Current Rating:*** *up to 43.0A*
- ***Inductance Range:*** *0.15uH to 68.0uH*
- *Shielded construction and compact design*
- *High current, low DCR, and high efficiency*
- *Minimized acoustic noise and minimized leakage flux*
- *200Vdc Isolation between terminal and core*

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

Commercial[6,7]	Automotive[6,7]	Inductance[5] 100KHz, 1V	Rated[3] Current	DC Resistance		Saturation[2] Current
				TYP.	MAX.	
		uH±20%	A	mΩ	mΩ	A
PA4345.101NLT	PM4345.101NLT	**0.10***	**18.0**	**3.6**	**4.0**	**45.0**
PA4345.121NLT	PM4345.121NLT	0.12*	17.0	3.7	4.3	35.0
PA4345.151NLT	PM4345.151NLT	**0.15***	**16.0**	**3.8**	**4.6**	**27.0**
PA4345.221NLT	PM4345.221NLT	**0.22**	**15.0**	**4.0**	**5.5**	**25.0**
PA4345.241NLT	PM4345.241NLT	**0.24**	**13.0**	**6.0**	**7.0**	**23.0**
PA4345.331NLT	PM4345.331NLT	**0.33**	**12.0**	**6.3**	**7.3**	**21.3**
PA4345.361NLT	PM4345.361NLT	0.36	11.8	6.8	7.8	20.0
PA4345.471NLT	PM4345.471NLT	**0.47**	**11.5**	**7.3**	**8.6**	**18.0**
PA4345.561NLT	PM4345.561NLT	0.56	10.7	9.3	11.2	15.0
PA4345.681NLT	PM4345.681NLT	**0.68**	**10.0**	**11.0**	**12.4**	**12.8**
PA4345.821NLT	PM4345.821NLT	0.82	8.5	15.0	18.0	14.0
PA4345.102NLT	PM4345.102NLT	**1.0**	**7.0**	**17.5**	**20.0**	**13.7**
PA4345.122NLT	PM4345.122NLT	**1.2**	**6.2**	**23.0**	**28.0**	**11.0**
PA4345.152NLT	PM4345.152NLT	**1.5**	**5.5**	**26.5**	**30.5**	**9.8**
PA4345.222NLT	PM4345.222NLT	2.2	4.2	42.0	50.0	9.0
PA4345.272NLT	PM4345.272NLT	2.7	4.0	50.0	58.0	8.2
PA4345.332NLT	PM4345.332NLT	**3.3**	**3.3**	**66.0**	**76.0**	**7.3**
PA4345.472NLT	PM4345.472NLT	**4.7**	**2.8**	**103**	**116**	**5.0**
PA4345.562NLT	PM4345.562NLT	5.6	2.5	112	122	4
PA4345.682NLT	PM4345.682NLT	6.8	2.4	130	150	3.8

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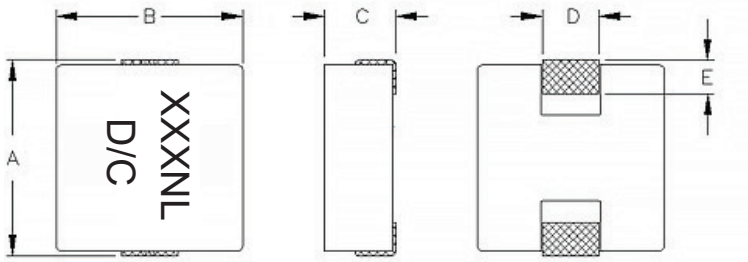
Electrical Specifications @ 25°C – Operating Temperature -55°C to +125°C						
Commercial[6,7]	Automotive[6,7]	▽ Inductance[5] 100KHz, 1V	Rated[3] Current	DC Resistance		Saturation[2] Current
				TYP.	MAX.	
		(uH ±20%)	A	mΩ	mΩ	A
PA4345.822NLT	PM4345.822NLT	8.2	2.3	148	171	3.5
PA4345.103NLT	PM4345.103NLT	10	2.3	180	199	3.4
PA4345.153NLT	PM4345.153NLT	15	1.9	240	270	2.8
PA4345.223NLT	PM4345.223NLT	22	1.5	350	390	1.8

Notes:

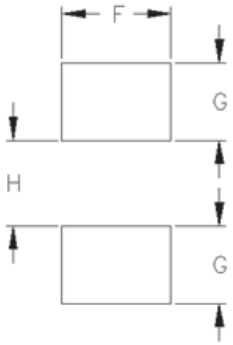
1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by 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' 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 with a * 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 part numbers have full automotive IATF16949 certification. The PM part number 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

PA4345/PM4345



Final Layout



SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	F	G	H
PA4345/PM4345	6.0 Max	5.4 Max	2.0 Max	(2.5)	(1.1)	(2.8)	(2.0)	(2.2)

All Dimensions in mm.

SMT Power Inductor

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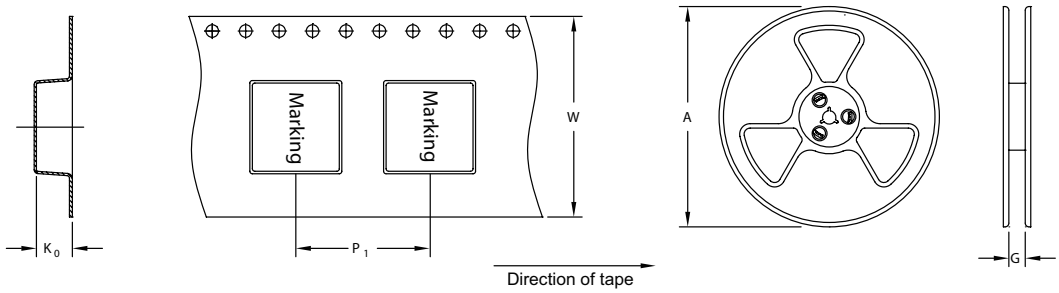
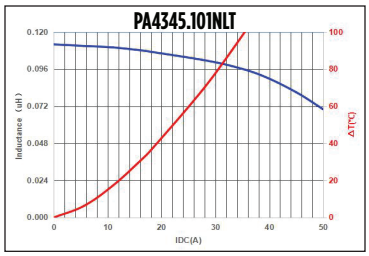
TAPE & REEL INFO

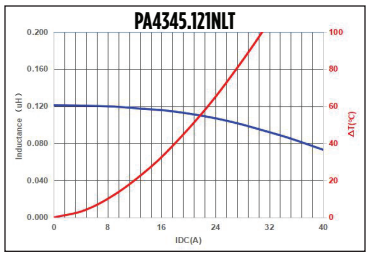


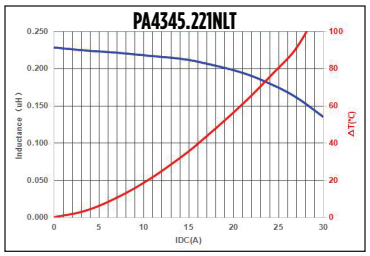
SURFACE MOUNTING TYPE, REEL/TAPE LIST						
	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P_1	W	K_0	PCS/REEL
PA4345/PM4345	Ø330	12	8	12	2.3	3000

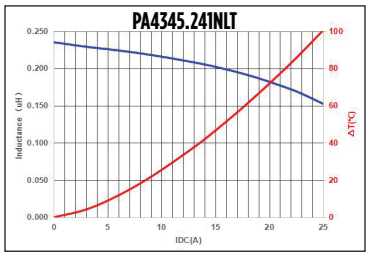
Typical Performance Curves

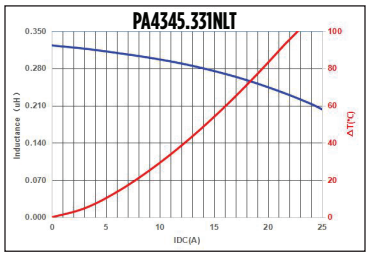
PA4345.XXXNLT and PM4345.XXXNLT

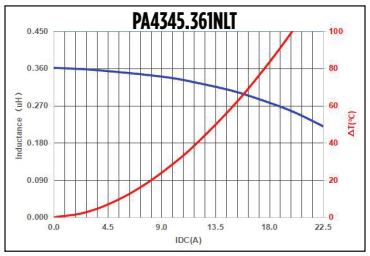


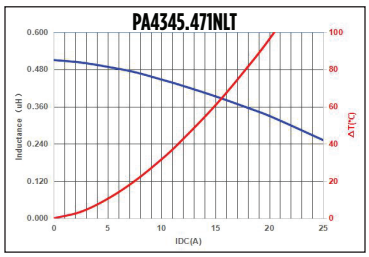


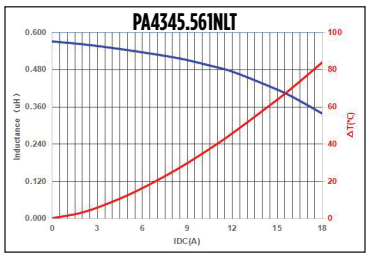


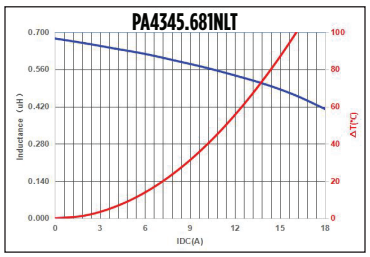












SMT Power Inductor

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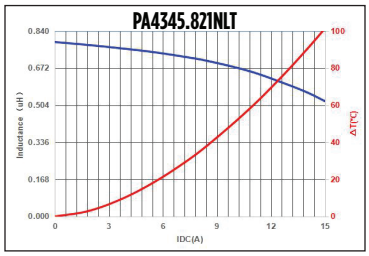

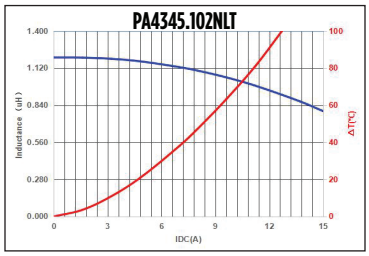

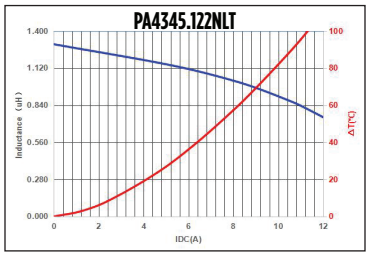

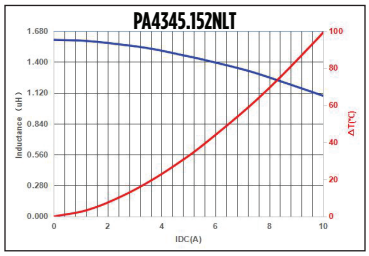

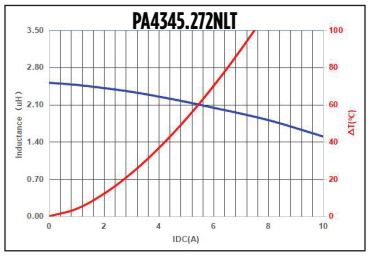

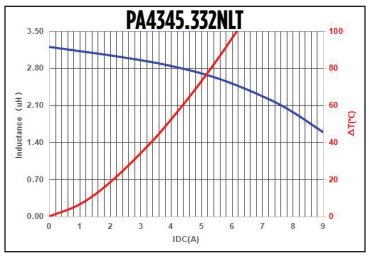

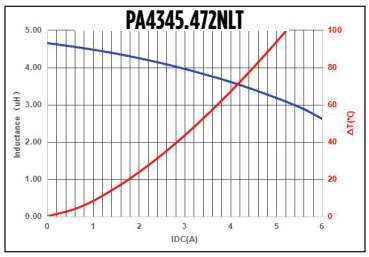

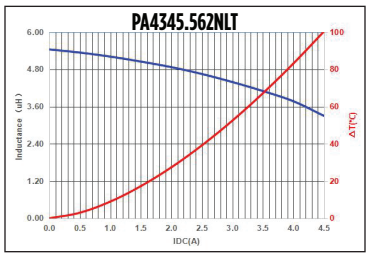

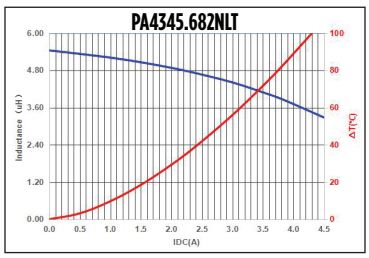

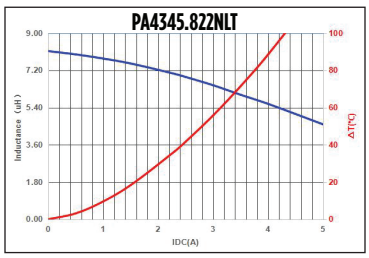

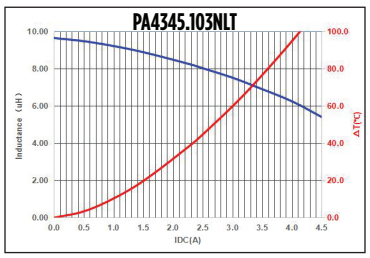

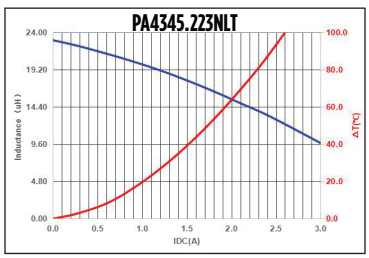

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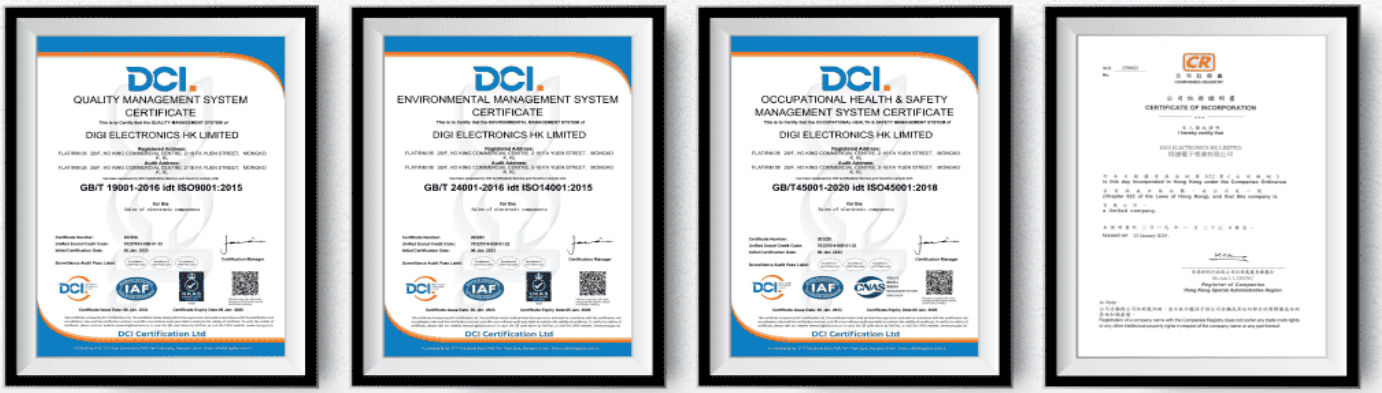

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