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SMT Power Inductors
High Current Molded Power Inductor - PA4342 & PM4342 Series



- ***Height:*** *4.0mm Max*
- ***Footprint:*** *11.5mm x 10.3mm 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*
- *60 Vdc Voltage Rating between terminals*

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	A	mΩ	mΩ	A
PA4342.151NLT	PM4342.151NLT	**0.15***	**43**	**0.5**	**0.6**	**75**
PA4342.221NLT	PM4342.221NLT	**0.22**	**35**	**0.8**	**1.0**	**60**
PA4342.271NLT	PM4342.271NLT	**0.27**	**33**	**0.82**	**1.0**	**60**
PA4342.331NLT	PM4342.331NLT	0.33	31	1.0	1.2	60
PA4342.361NLT	PM4342.361NLT	**0.36**	**31**	**1.05**	**1.2**	**60**
PA4342.391NLT	PM4342.391NLT	**0.39**	**30**	**1.1**	**1.3**	**60**
PA4342.451NLT	PM4342.451NLT	**0.45**	**29**	**1.3**	**1.5**	**45**
PA4342.471NLT	PM4342.471NLT	**0.47**	**28**	**1.3**	**1.5**	**43**
PA4342.561NLT	PM4342.561NLT	**0.56**	**25**	**1.6**	**1.8**	**40**
PA4342.681NLT	PM4342.681NLT	**0.68**	**22**	**2.4**	**2.7**	**39**
PA4342.881NLT	PM4342.881NLT	0.88	20	2.5	2.9	38
PA4342.102NLT	PM4342.102NLT	**1.00**	**18**	**3.0**	**3.3**	**36**
PA4342.122NLT	PM4342.122NLT	**1.20**	**17**	**3.3**	**3.8**	**33**
PA4342.152NLT	PM4342.152NLT	**1.50**	**16**	**4.0**	**4.6**	**33**
PA4342.222NLT	PM4342.222NLT	**2.20**	**12**	**6.5**	**7.0**	**27**
PA4342.252NLT	PM4342.252NLT	**2.50**	**11.5**	**7.9**	**8.7**	**23**
PA4342.332NLT	PM4342.332NLT	**3.30**	**11**	**10.8**	**11.8**	**20**
PA4342.402NLT	PM4342.402NLT	**4.00**	**10.2**	**13**	**15**	**18**
PA4342.472NLT	PM4342.472NLT	**4.70**	**10**	**15**	**15.5**	**17**
PA4342.562NLT	PM4342.562NLT	**5.60**	**9.0**	**17**	**19.3**	**14**
PA4342.682NLT	PM4342.682NLT	**6.80**	**8.5**	**17.5**	**23.3**	**13.5**

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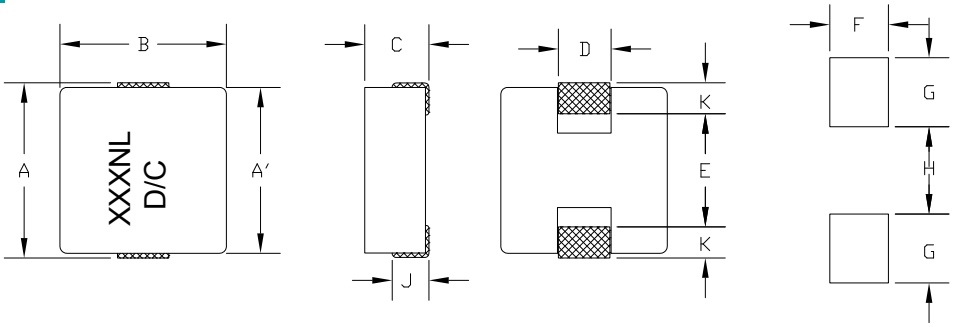
Electrical Specifications @ 25°C – Operating Temperature -55°C to +125°C						
Commercial[6]	Automotive[6]	▽ Inductance[5] 100KHz, 1V	Rated[3] Current	DC Resistance		Saturation[2] Current
				TYP.	MAX.	
		uH	A	mΩ	mΩ	A
PA4342.822NLT	PM4342.822NLT	8.2	8.0	20	25.5	12.5
PA4342.103NLT	PM4342.103NLT	10	7.5	27	30	12
PA4342.153NLT	PM4342.153NLT	15	6.25	40	45	10
PA4342.223NLT	PM4342.223NLT	22	5.0	64	74	7.0
PA4342.273NLT	PM4342.273NLT	27	4.0	86	100	6.0
PA4342.333NLT	PM4342.333NLT	33	3.5	92	112	5.0
PA4342.473NLT	PM4342.473NLT	47	3.0	145	167	4.5
PA4342.683NLT	PM4342.683NLT	68	2.0	205	240	3.0

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. Both the PA and PM part numbers are AEC-Q200 qualified parts. 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

PA4342/PM4342



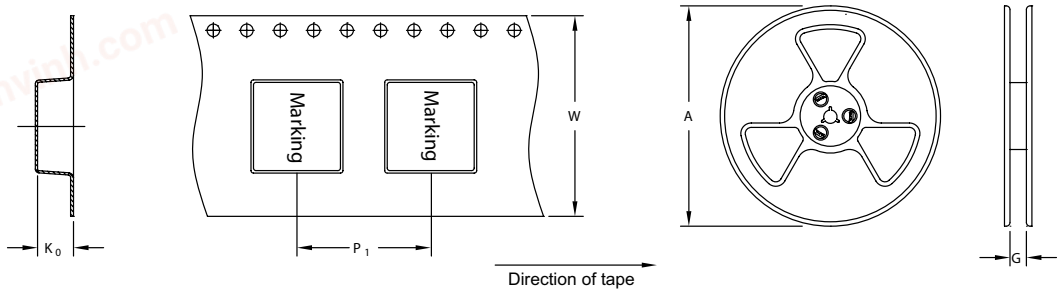
Final Layout SUGGESTED PAD LAYOUT

Series	Mechanical	A	A'	B	C	D	E	F	J	K	G	H
PA4342/PM4342	Footprint 2	11.5 Max	10.3 Max	10.3 Max	4.0 Max	(3.0)	(6.4)	(3.5)	2.4 Max	2.6 Max	(4.1)	(5.4)

All Dimensions in mm.

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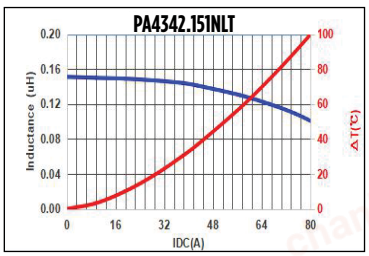
TAPE & REEL INFO

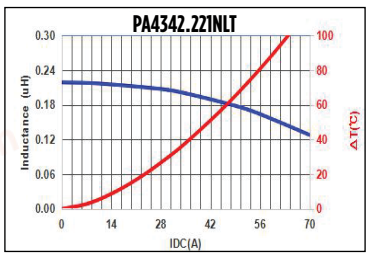


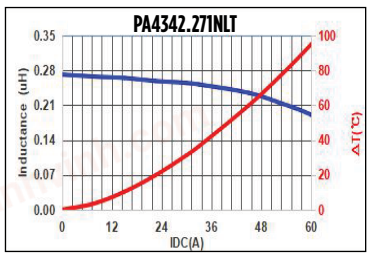
SURFACE MOUNTING TYPE, REEL/TAPE LIST						
	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P_1	W	K_0	PCS/REEL
PA4342/PM4342	Ø330	24	16	24	4.5	500

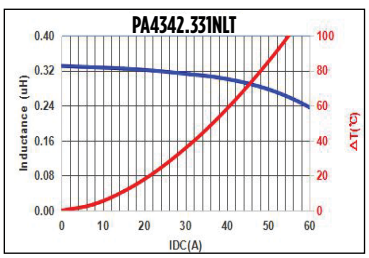
Typical Performance Curves

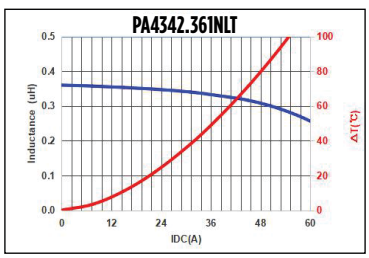
PA4342.XXXNLT and PM4342.XXXNLT

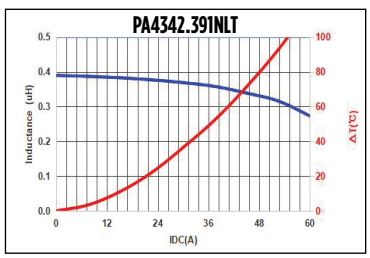


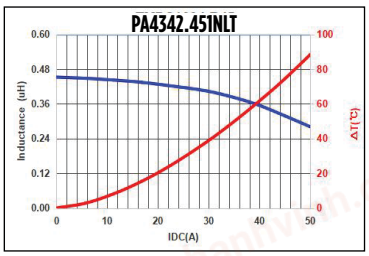


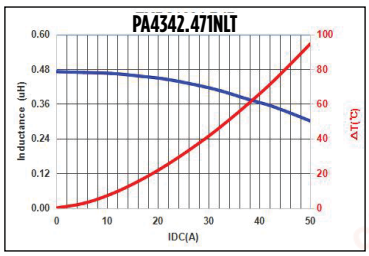


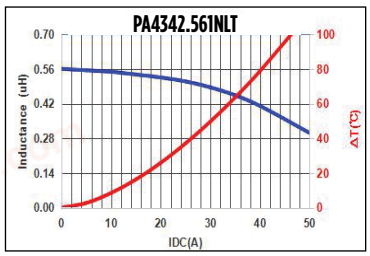




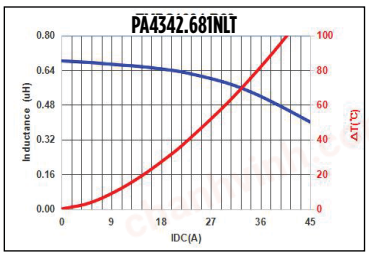


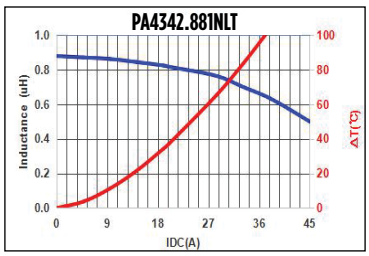


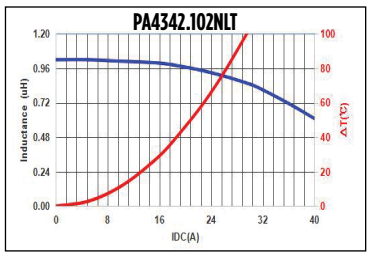


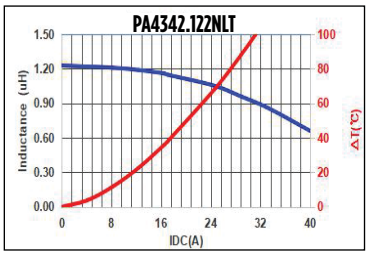


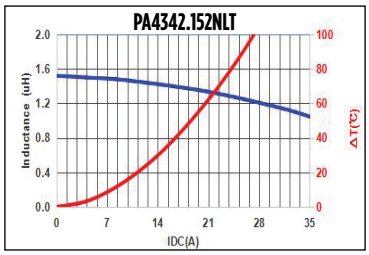
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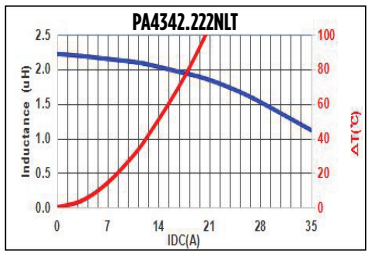


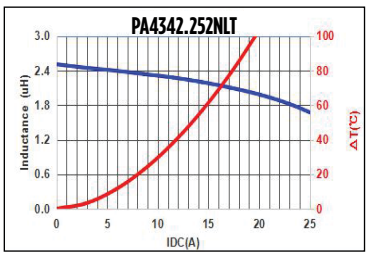


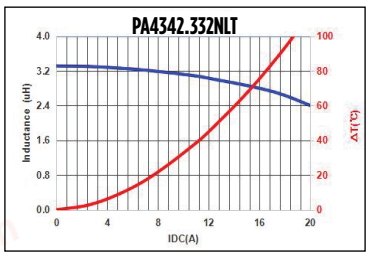


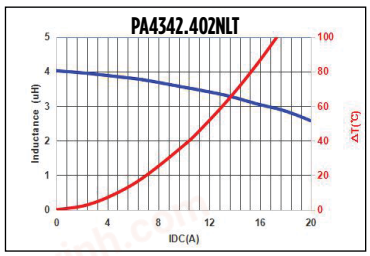


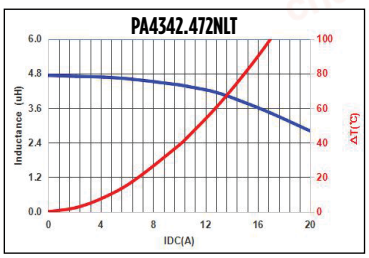


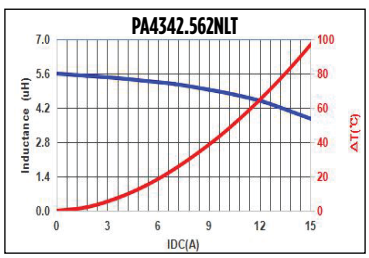


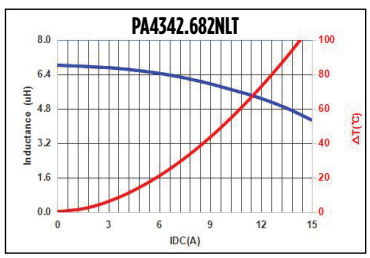


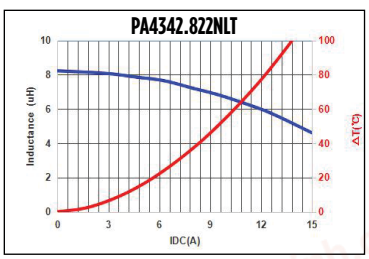


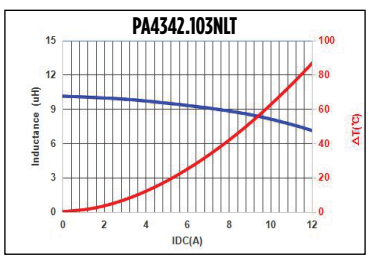


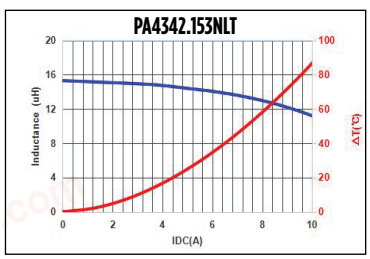






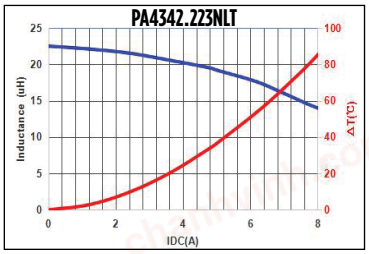


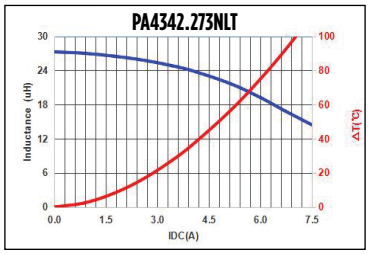


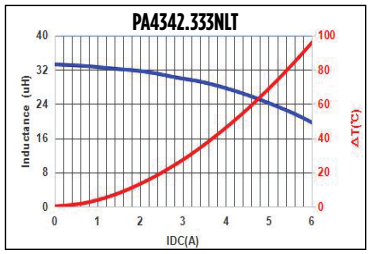


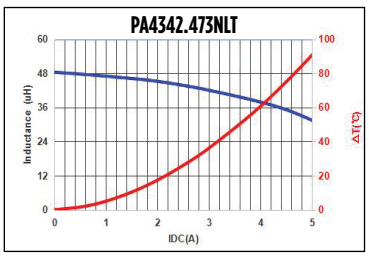
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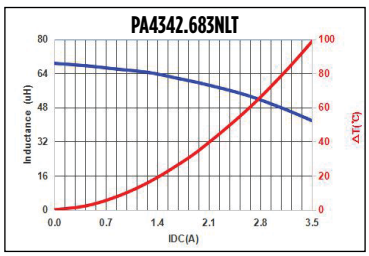
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For More Information:

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