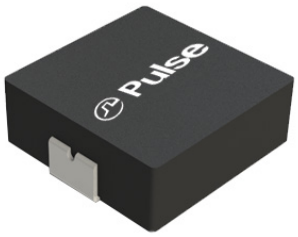
SMT Power Inductors

High Current Molded Power Inductor - PA4342.XXXNLT & PM4342.XXXNLT 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*
- *200Vdc Isolation between terminal and core*
- *Available in Commercial (PA) and Automotive (PM) grades*

		Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C				
Commercial[6,7]	Automotive[6,7]	Inductance[5] 100KHz, 1V	Rated Current	DC Resistance		Saturation 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**

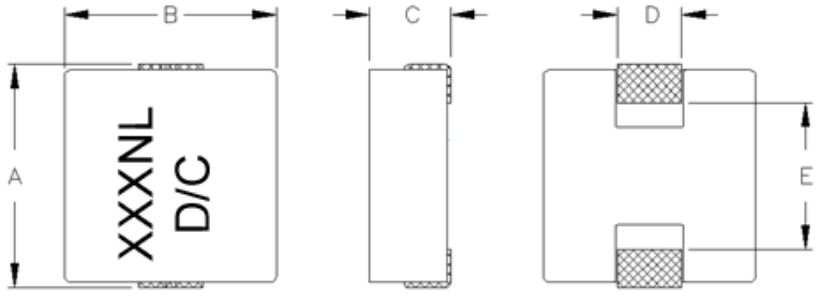
Commercial[6,7]	Automotive[6,7]	Electrical Specifications @ 25°C – Operating Temperature -55°C to +125°C				
		Inductance[5] 100KHz, 1V	Rated Current	DC Resistance		Saturation Current
				TYP.	MAX.	
		uH	A	mΩ	mΩ	A
PA4342.822NLT	PM4342.822NLT	**8.2**	**8.0**	**20**	**25.5**	**12.5**
PA4342.103NLT	PM4342.103NLT	**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:

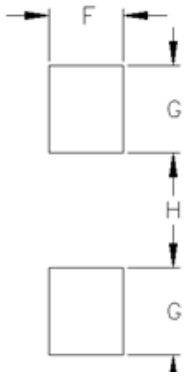
1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by 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' 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 .151NLT which is ±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 Characteistic ▽

Mechanical

PA4342/PM4342



Final Layout

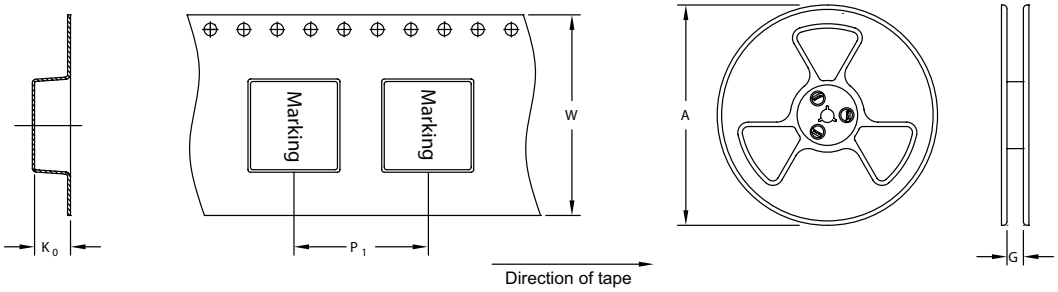


SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	F	G	H
PA4342/PM4342	11.5 Max	10.3 Max	4.0 Max	(3.0)	(6.4)	(3.5)	(4.1)	(5.4)

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
PA4342/PM4342	Ø330	24	16	24	4.5	500

For More Information

Pulse Worldwide Headquarters
15255 Innovation Drive Ste 100
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe
Pulse Electronics GmbH
Am Rottland 12
58540 Meinerzhagen
Germany

Tel: 49 2354 777 100
Fax: 49 2354 777 168

Pulse China Headquarters
Pulse Electronics (ShenZhen) CO., LTD
D708, Shenzhen Academy of
Aerospace Technology,
The 10th Keji South Road,
Nanshan District, Shenzhen,
P.R. China 518057

Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China
Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia
3 Fraser Street 0428
DUO Tower
Singapore 189352

Tel: 65 6287 8998
Fax: 65 6280 0080

Pulse North Asia
1F., No.111 Xiyuan Road
Zhongli District
Taoyuan City 32057
Taiwan (R.O.C)

Tel: 886 3 4356768
Fax: 886 3 4356820