High Current Molded Power Inductor - PA4341.XXXNLT & PM4341.XXXNLT













Meight: 3.0mm Max

**Footprint:** 7.6mm x 6.9mm Max

© Current Rating: up to 32.5A

Inductance Range: 0.1uH to 47.0uH
 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								
	Automotive <sup>6,7</sup>	◯ Inductance⁵	Rated³ Current	DC Res	Saturation <sup>2</sup>			
Commercial <sup>6,7</sup>		100KHz, 1V		TYP.	MAX.	Current		
		(uH ±20%)	A	mΩ	mΩ	A		
PA4341.101NLT	PM4341.101NLT	0.10*	32.5	1.2	1.7	60		
PA4341.131NLT	PM4341.131NLT	0.13*	27.6	1.3	1.8	50		
PA4341.151NLT	PM4341.151NLT	.15*	27	1.5	1.9	45		
PA4341.161NLT	PM4341.161NLT	.16*	27	1.5	1.9	45		
PA4341.181NLT	PM4341.181NLT	.18*	25	1.7	2.3	43		
PA4341.191NLT	PM4341.191NLT	.19*	24	1.8	2.5	41		
PA4341.201NLT	PM4341.201NLT	.20*	24	1.8	2.5	41		
PA4341.221NLT	PM4341.221NLT	.22*	23	2.1	2.8	40		
PA4341.241NLT	PM4341.241NLT	.24	22	2.5	3.1	39		
PA4341.251NLT	PM4341.251NLT	.25	21	3.3	3.5	39		
PA4341.301NLT	PM4341.301NLT	0.30	21	3.2	3.8	35		
PA4341.331NLT	PM4341.331NLT	0.33	20	3.5	3.9	32		
PA4341.361NLT	PM4341.361NLT	0.36	19	3.6	4.2	32		
PA4341.471NLT	PM4341.471NLT	0.47	17.5	4.0	4.2	26		
PA4341.561NLT	PM4341.561NLT	0.56	16.5	4.7	5.0	25.5		
PA4341.601NLT	PM4341.601NLT	0.60	16	4.7	5.2	25.5		
PA4341.681NLT	PM4341.681NLT	0.68	15.5	4.8	5.5	25		
PA4341.751NLT	PM4341.751NLT	0.75	14.5	5.5	6.6	24.5		
PA4341.821NLT	PM4341.821NLT	0.82	13	6.7	8.0	24		
PA4341.901NLT	PM4341.901NLT	.90	11	8.3	10	22		
PA4341.102NLT	PM4341.102NLT	1.0	11	8.3	10	22		
PA4341.122NLT	PM4341.122NLT	1.2	10	10	12	20		
PA4341.152NLT	PM4341.152NLT	1.5	9.0	13	15	18		

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Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C									
	Automotive <sup>6,7</sup>	◯ Inductance⁵	Rated <sup>3</sup>	DC Resistance		Saturation <sup>2</sup>			
Commercial <sup>6,7</sup>		100KHz, 1V	Current	TYP.	MAX.	Current			
		(uH ±20%)	A	mΩ	mΩ	A			
PA4341.182NLT	PM4341.182NLT	1.8	8.5	14	17	16			
PA4341.202NLT	PM4341.202NLT	2.0	8.2	16	19	15			
PA4341.222NLT	PM4341.222NLT	2.2	8.0	18	20	14			
PA4341.252NLT	PM4341.252NLT	2.5	7.0	20	22	13			
PA4341.272NLT	PM4341.272NLT	2.7	7.0	24	27	13			
PA4341.332NLT	PM4341.332NLT	3.3	6.0	28	30	13.5			
PA4341.472NLT	PM4341.472NLT	4.7	5.5	37	40	10			
PA4341.562NLT	PM4341.562NLT	5.6	5.0	43	48	9.0			
PA4341.682NLT	PM4341.682NLT	6.8	4.5	54	60	8.0			
PA4341.822NLT	PM4341.822NLT	8.2	4.0	64	68	7.5			
PA4341.103NLT	PM4341.103NLT	10	3.5	75	85	6.0			
PA4341.123NLT	PM4341.123NLT	12	3.3	81	93	5.5			
PA4341.153NLT	PM4341.153NLT	15	3.0	107	123	4.0			
PA4341.223NLT	PM4341.223NLT	22	2.0	165	190	3.5			
PA4341.333NLT	PM4341.333NLT	33	2.0	200	240	2.5			
PA4341.403NLT	PM4341.403NLT	40	1.9	283	340	2.3			
PA4341.473NLT	PM4341.473NLT	47	1.75	302	363	2.0			

#### Notes:

- Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- 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 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.

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- 5. Please note that the inductance tolerance of all parts are +/-20% except those indicated with a \* which are +/-30%.
- 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.
- 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

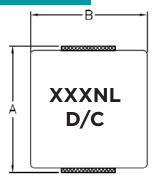
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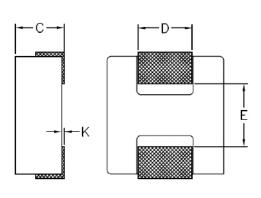
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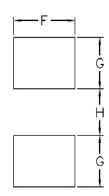


#### Mechanical

#### PA4341.XXXNLT and PM4341.XXXNLT







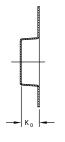
FINAL LAYOUT

SUGGESTED	PAD	LAYOUT
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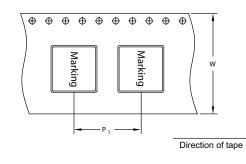
Series	A	В	(	D	E	F	G	Н	K
PA4341/PM4341	7.6 MAX	6.9 MAX	3.0 MAX	(3.0)	(3.7)	(3.5)	(2.95)	(2.5)	(0~0.22)

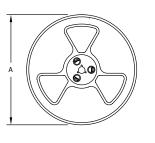
All Dimensions in mm.

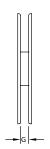
#### **TAPE & REEL INFO**



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SURFACE MOUNTING TYPE, REEL/TAPE LIST									
	REEL SIZ	<u>'</u> E (mm)	TA	QTY					
	А	G	P <sub>1</sub>	W	K <sub>0</sub>	PCS/REEL			
PA4341/PM4341	Ø330	16	12	16	3.3	1000			

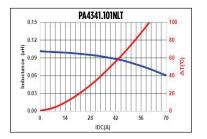
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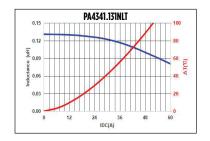
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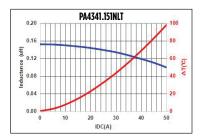


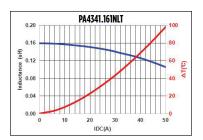
### **Typical Performance Curves**

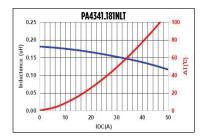
#### PA4341.XXXNLT and PM4341.XXXNLT

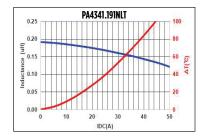


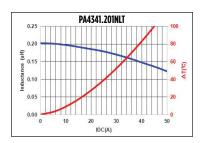


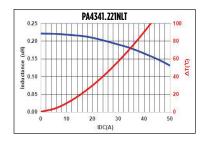


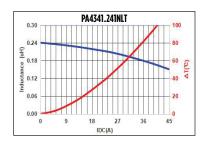


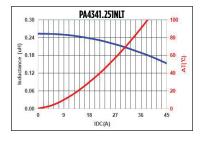


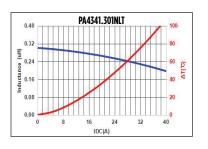


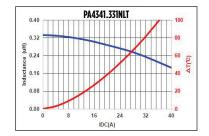


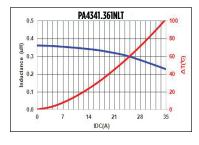




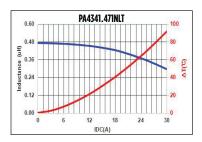


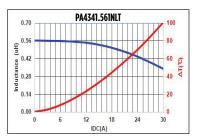






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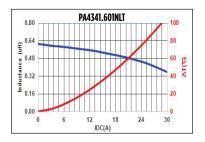


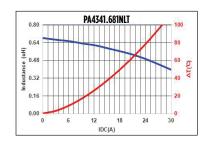


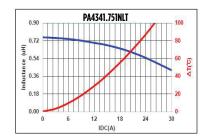
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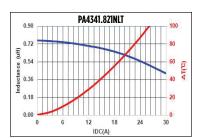
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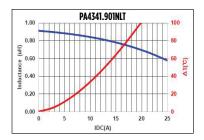


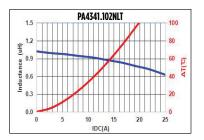




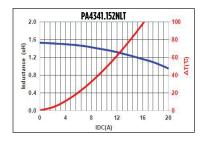


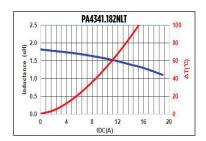


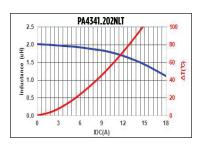




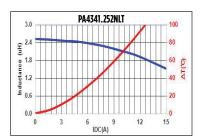






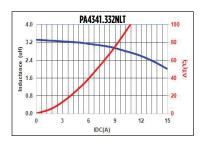


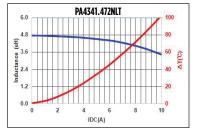






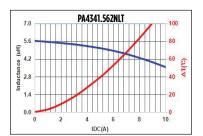
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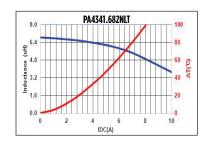


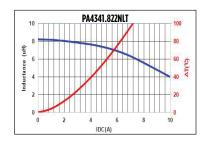


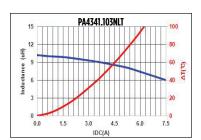
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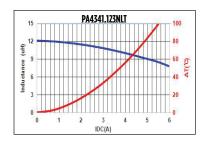
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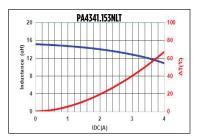




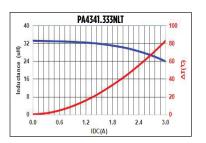


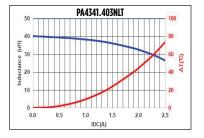


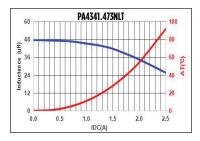












#### For More Information:

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