

# SMT Power Inductor

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



- Ⓟ **Height:** 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

Commercial <sup>6,7</sup>	Automotive <sup>6,7</sup>	Inductance <sup>5</sup> 100KHz, 1V  (uH ±20%)	Rated <sup>3</sup> Current  A	DC Resistance		Saturation <sup>2</sup> Current  A
				TYP.	MAX.	
				mΩ	mΩ	
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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				TYP.	MAX.	
				m $\Omega$	m $\Omega$	
<b>PA4341.182NLT</b>	PM4341.182NLT	<b>1.8</b>	<b>8.5</b>	<b>14</b>	<b>17</b>	<b>16</b>
<b>PA4341.202NLT</b>	PM4341.202NLT	<b>2.0</b>	<b>8.2</b>	<b>16</b>	<b>19</b>	<b>15</b>
<b>PA4341.222NLT</b>	PM4341.222NLT	<b>2.2</b>	<b>8.0</b>	<b>18</b>	<b>20</b>	<b>14</b>
<b>PA4341.252NLT</b>	PM4341.252NLT	<b>2.5</b>	<b>7.0</b>	<b>20</b>	<b>22</b>	<b>13</b>
PA4341.272NLT	PM4341.272NLT	2.7	7.0	24	27	13
<b>PA4341.332NLT</b>	PM4341.332NLT	<b>3.3</b>	<b>6.0</b>	<b>28</b>	<b>30</b>	<b>13.5</b>
<b>PA4341.472NLT</b>	PM4341.472NLT	<b>4.7</b>	<b>5.5</b>	<b>37</b>	<b>40</b>	<b>10</b>
<b>PA4341.562NLT</b>	PM4341.562NLT	<b>5.6</b>	<b>5.0</b>	<b>43</b>	<b>48</b>	<b>9.0</b>
<b>PA4341.682NLT</b>	PM4341.682NLT	<b>6.8</b>	<b>4.5</b>	<b>54</b>	<b>60</b>	<b>8.0</b>
<b>PA4341.822NLT</b>	PM4341.822NLT	<b>8.2</b>	<b>4.0</b>	<b>64</b>	<b>68</b>	<b>7.5</b>
<b>PA4341.103NLT</b>	PM4341.103NLT	<b>10</b>	<b>3.5</b>	<b>75</b>	<b>85</b>	<b>6.0</b>
<b>PA4341.123NLT</b>	PM4341.123NLT	<b>12</b>	<b>3.3</b>	<b>81</b>	<b>93</b>	<b>5.5</b>
PA4341.153NLT	PM4341.153NLT	15	3.0	107	123	4.0
<b>PA4341.223NLT</b>	PM4341.223NLT	<b>22</b>	<b>2.0</b>	<b>165</b>	<b>190</b>	<b>3.5</b>
PA4341.333NLT	PM4341.333NLT	33	2.0	200	240	2.5
PA4341.403NLT	PM4341.403NLT	40	1.9	283	340	2.3
<b>PA4341.473NLT</b>	PM4341.473NLT	<b>47</b>	<b>1.75</b>	<b>302</b>	<b>363</b>	<b>2.0</b>

**Notes:**

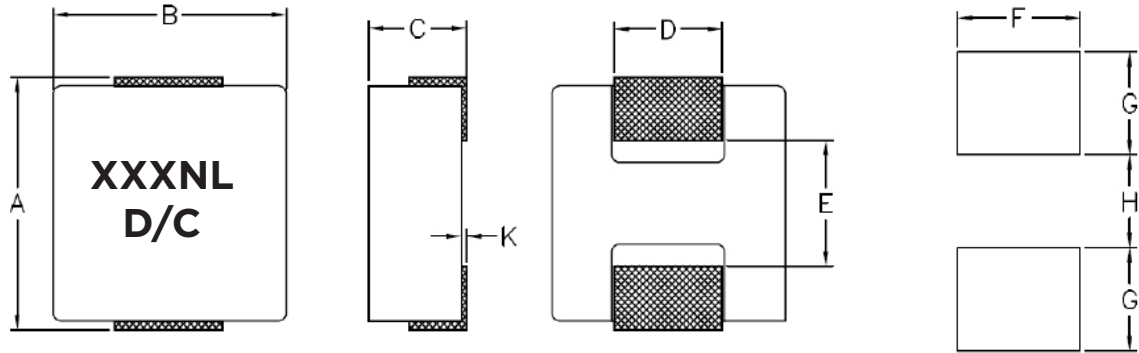
- Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effect) to the component.
- 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.
- 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.
- 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 availability.
- 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.
- Special Characteristics

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## Mechanical

### PA4341.XXXNLT and PM4341.XXXNLT



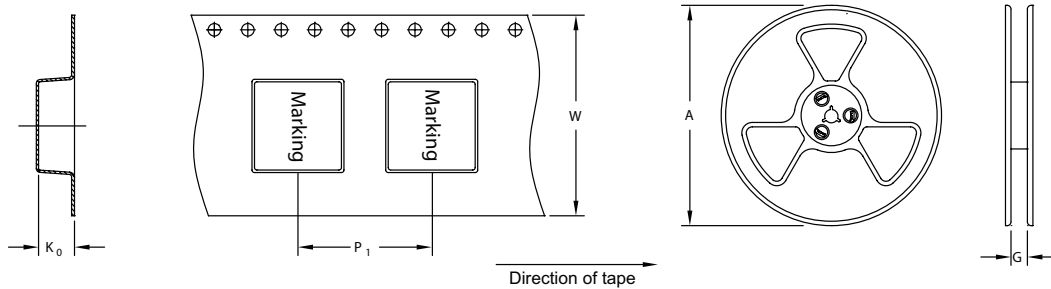
FINAL LAYOUT

SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	F	G	H	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



#### SURFACE MOUNTING TYPE, REEL/TAPE LIST

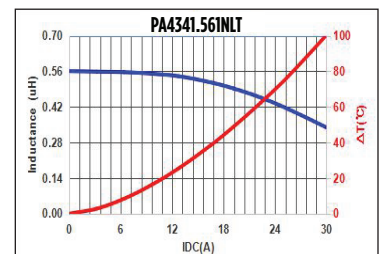
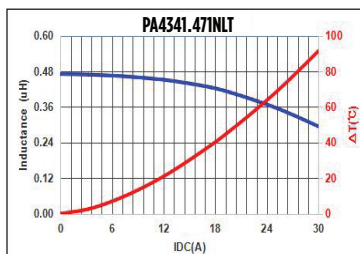
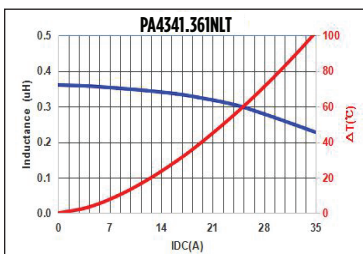
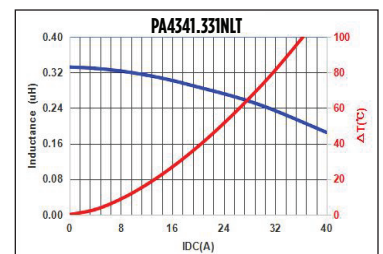
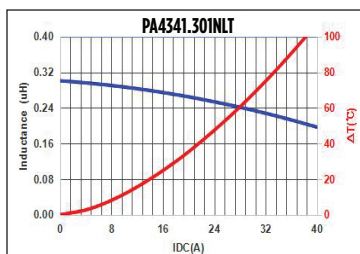
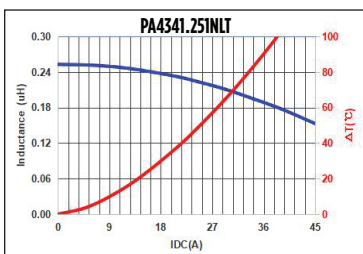
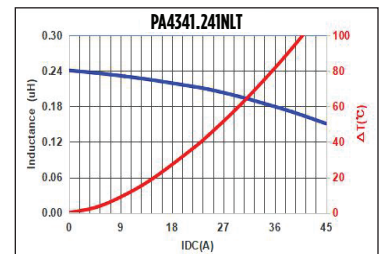
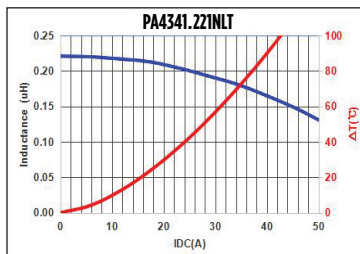
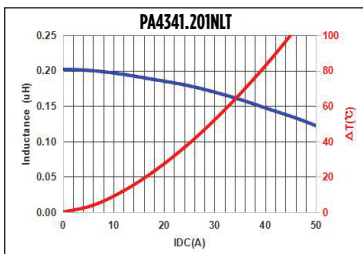
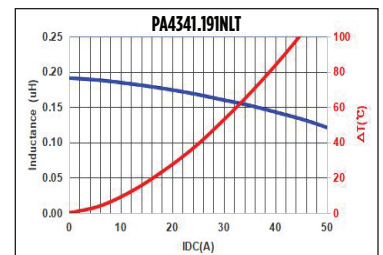
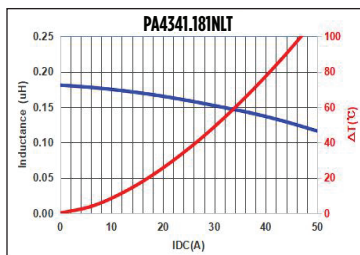
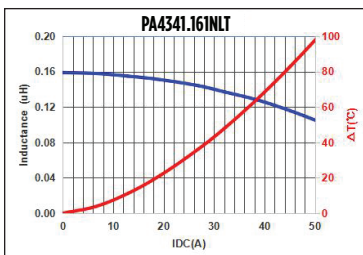
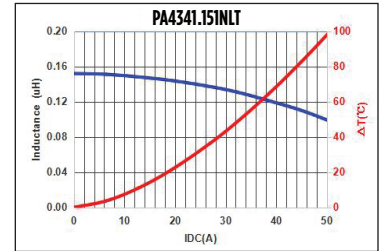
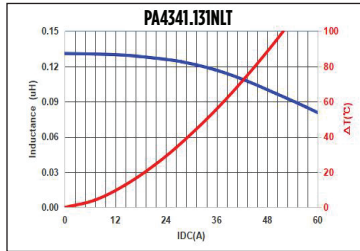
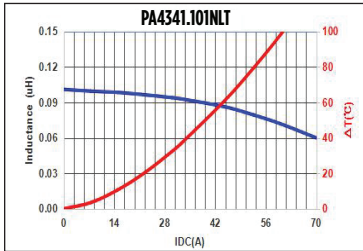
	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P <sub>1</sub>	W	K <sub>0</sub>	PCS/REEL
PA4341/PM4341	Ø330	16	12	16	3.3	1000

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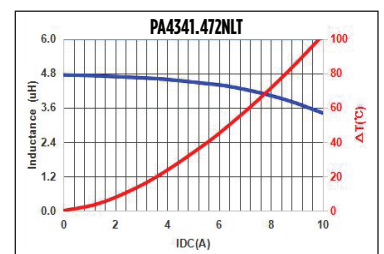
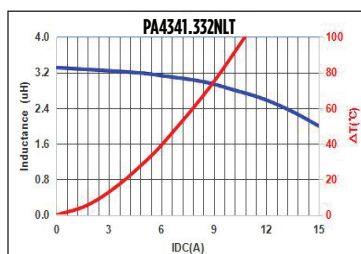
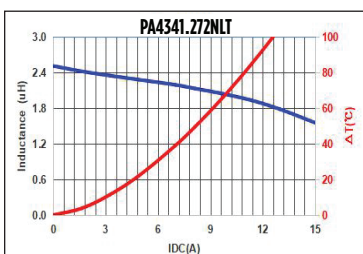
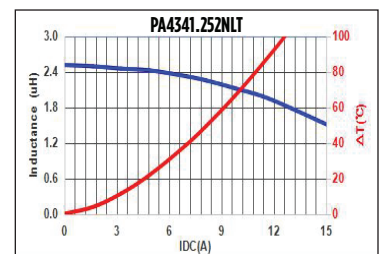
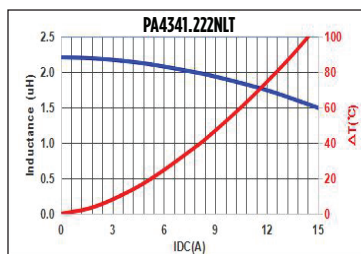
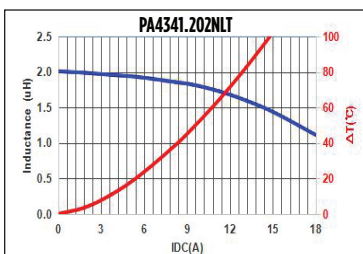
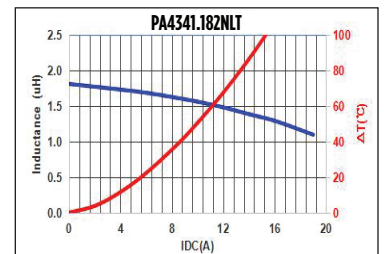
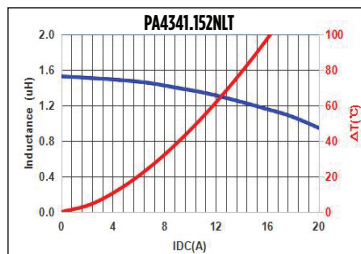
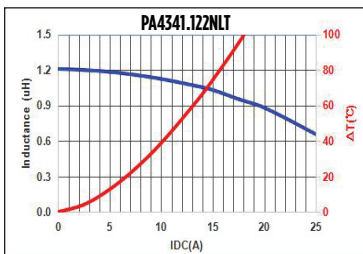
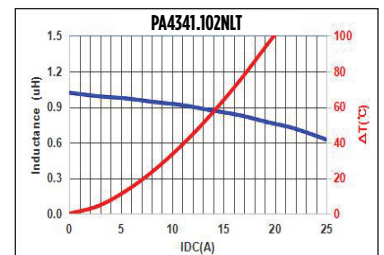
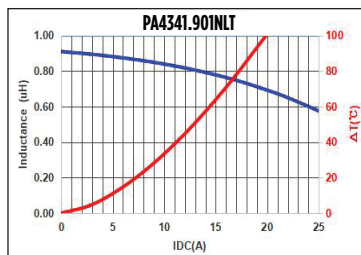
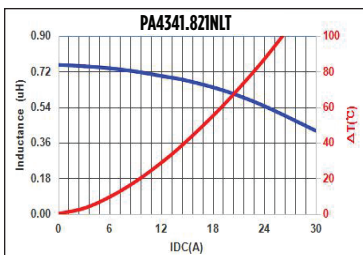
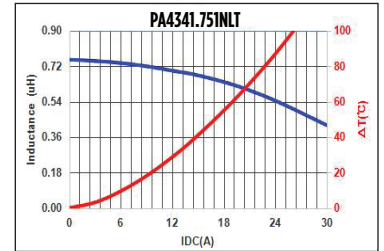
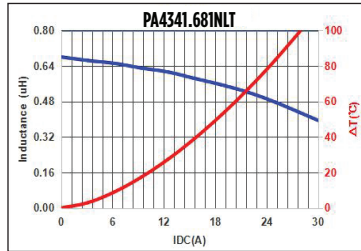
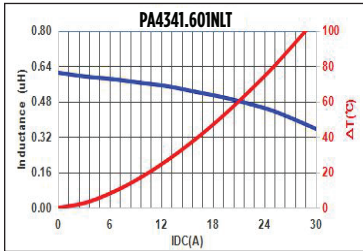
## Typical Performance Curves

### PA4341.XXXNLT and PM4341.XXXNLT



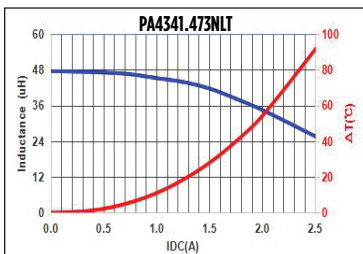
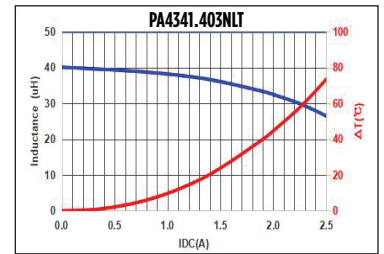
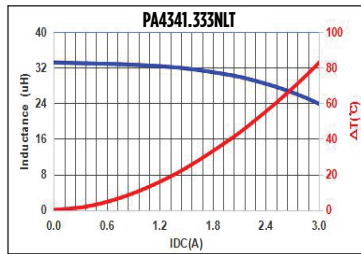
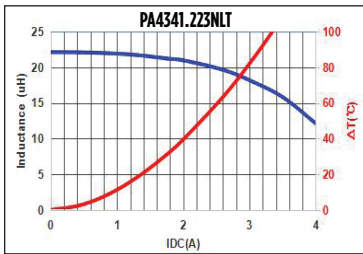
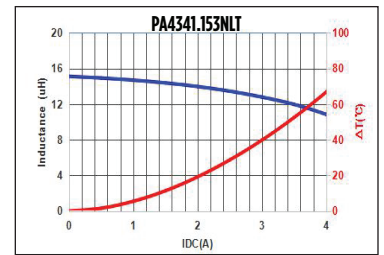
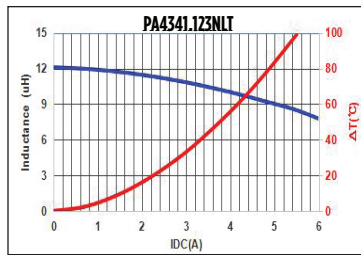
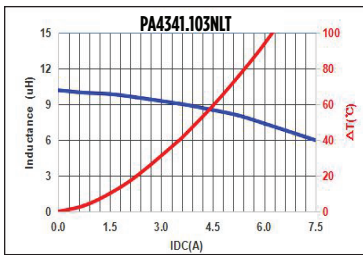
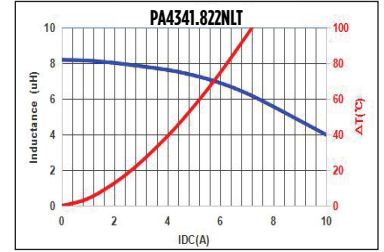
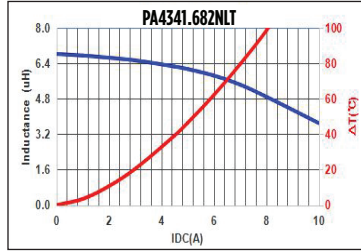
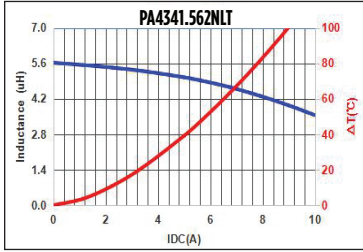
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## For More Information:

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