Molded Power Inductor - PA5447.XXXNLT and PM5447.XXXNLT Series















Height: 1.8mm Max

Footprint: 7.3mm x 6.9mm Max

© Current Rating: up to 18A

Inductance Range: 0.10uH to 33.0uH

@ High current, low DCR, and high efficiency

Shielded construction and compact design

Minimized acoustic noise and minimized leakage flux noise

Available in Commercial (PA) and automotive (PM) grades

Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C								
Part Number <sup>6,7</sup>		<b>Inductance</b> <sup>5,8</sup> (100KHz, 1.0V)	Rated³ Current	DC Resistance		Saturation <sup>2</sup> Current		
			TYP.	TYP.	MAX.	TYP.		
Commerical	Automotive	uH±20%	A	mΩ	mΩ	A		
PA5447.101NLT	PM5447.101NLT	0.10*	18	2.1	2.5	45		
PA5447.151NLT	PM5447.151NLT	0.15	18	2.2	2.6	34		
PA5447.181NLT	PM5447.181NLT	0.18*	17	2.5	3.0	32		
PA5447.221NLT	PM5447.221NLT	0.22	16	2.5	3.0	26		
PA5447.331NLT	PM5447.331NLT	0.33	14	4.8	5.8	22		
PA5447.471NLT	PM5447.471NLT	0.47	12	6.4	7.4	18		
PA5447.561NLT	PM5447.561NLT	0.56	11	8.5	10.0	17.5		
PA5447.681NLT	PM5447.681NLT	0.68	10	9.5	11.0	17		
PA5447.821NLT	PM5447.821NLT	0.82	8.5	11.5	14.0	15.5		
PA5447.102NLT	PM5447.102NLT	1.00	7.0	14.5	17.0	14		
PA5447.122NLT	PM5447.122NLT	1.20	6.5	20	24.0	13.5		
PA5447.152NLT	PM5447.152NLT	1.50	6.0	21	25.2	13		
PA5447.222NLT	PM5447.222NLT	2.20	6.0	31	35.0	11		
PA5447.332NLT	PM5447.332NLT	3.30	5.0	40	46.0	9		
PA5447.472NLT	PM5447.472NLT	4.70	4.0	68	76.0	7		
PA5447.562NLT	PM5447.562NLT	5.60	3.5	78	86.0	6		
PA5447.682NLT	PM5447.682NLT	6.80	3.0	93	104.0	5.5		
PA5447.822NLT	PM5447.822NLT	8.20	2.6	123	140.0	4.5		
PA5447.103NLT	PM5447.103NLT	10.0	2.3	143	160.0	3.5		
PA5447.153NLT	PM5447.153NLT	15.0	2.0	240	280.0	3.0		
PA5447.223NLT	PM5447.223NLT	22.0	1.8	300	360.0	2.5		
PA5447.333NLT	PM5447.333NLT	33.0	1.3	550	650.0	2.1		

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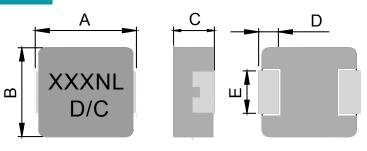
#### Notes:

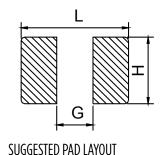
- Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- The saturation current is the current at which the initial inductance drops by approximately 30% at the stated ambient temperature. The maximum allowable drop at this stated current is 40% of the initial inductance. 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.
- Please note that the inductance tolerance of all parts are ±20%, except those indicated by an \* 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.
- 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 Characteristics

### **Mechanical**

### PA5447/PM5447



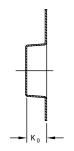


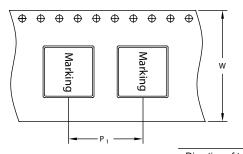
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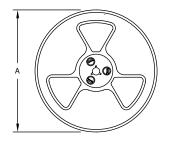
Series	A	В	C	D	E	L	G	Н
PA5447/PM5447	7.0±0.3	6.6±0.3	1.6±0.2	1.8±0.3	3.0±0.3	7.7	2.5	3.5

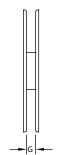
All Dimensions in mm.

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









Direction of tape

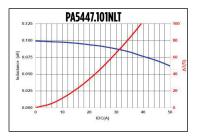
SURFACE MOUNTING TYPE, REEL/TAPE LIST								
	REEL SIZ	<b>(E (mm)</b>	TA	QTY				
	A	G	P <sub>1</sub>	W	K <sub>o</sub>	PCS/REEL		
PA5447/PM5447	Ø330	16.4	12	16	2.1	2000		

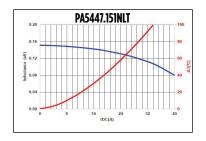
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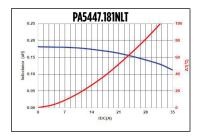


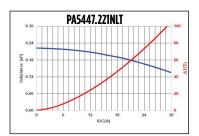
### **Typical Performance Curves**

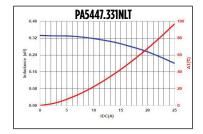
### PA5447/PM5447

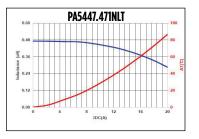


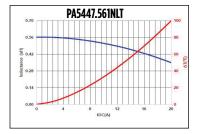


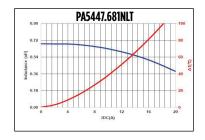


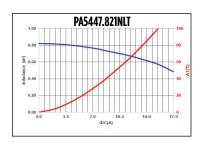


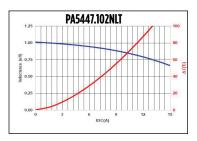








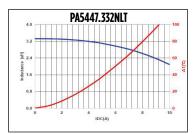


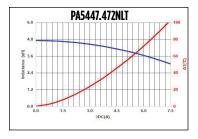






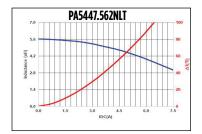




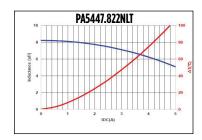


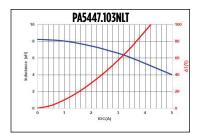
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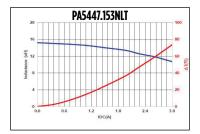
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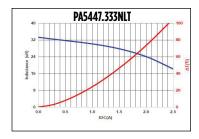












### **For More Information:**

Americas - prodinfo\_power@pulseelectronics.com | Europe - power-apps-europe@pulseelectronics.com | Asia - power-apps-asia@pulseelectronics.com

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# **Mouser Electronics**

Authorized Distributor

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# Pulse:

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PM5447.681NLT	PM5447.682NLT	PM5447.221NLT	PM5447.222NLT	PM5447.223NLT	PM5447.331NLT
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