High Current Molded Power Inductor - PA5405 & PM5405 Series





<sup>©</sup>Pulse

e Height: 3.5mm Max

*Footprint:* 14mm x 12.8mm Max

- Current Rating: up to 24A
- Inductance Range: 1 to 47uH
- e High current, low DCR, and high efficiency
- Shielded construction and compact design
- Ø Minimized acoustic noise and minimized leakage flux noise
- @ 200 Vdc Isolation Between Terminal and Core
- @ Available in Commercial (PA) and Automotive (PM) grades

Commercial <sup>6,7</sup>	Automotive <sup>6,7</sup>	Inductance⁵ 100KHz, 1.0V uH±20%	Rated <sup>3</sup> Current TYP. A	DC Resistance		Saturation <sup>2</sup> Current TYP.
				TYP. MAX.		
				mΩ	mΩ	A
PA5405.102NLT	PM5405.102NLT	1.0	24	2.7	3.5	40
PA5405.122NLT	PM5405.122NLT	1.2	21	4	5	37
PA5405.152NLT	PM5405.152NLT	1.5	19	4.8	5.5	35
PA5405.182NLT	PM5405.182NLT	1.8	17	5.2	7	30
PA5405.222NLT	PM5405.222NLT	2.2	16	6.3	8	29
PA5405.332NLT	PM5405.332NLT	3.3	12	11	13.5	27
PA5405.472NLT	PM5405.472NLT	4.7	10	15.3	18.5	24
PA5405.562NLT	PM5405.562NLT	5.6	9.5	18	22	19
PA5405.682NLT	PM5405.682NLT	6.8	9	20	24	18
PA5405.822NLT	PM5405.822NLT	8.2	8.5	23	28	16
PA5405.103NLT	PM5405.103NLT	10	7.5	29	34	14
PA5405.153NLT	PM5405.153NLT	15	6.5	55	65	10
PA5405.223NLT	PM5405.223NLT	22	4.5	83	99	7
PA5405.333NLT	PM5405.333NLT	33	3.5	132	160	6
PA5405.473NLT	PM5405.473NLT	47	3	181	218	5.5

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#### Notes:

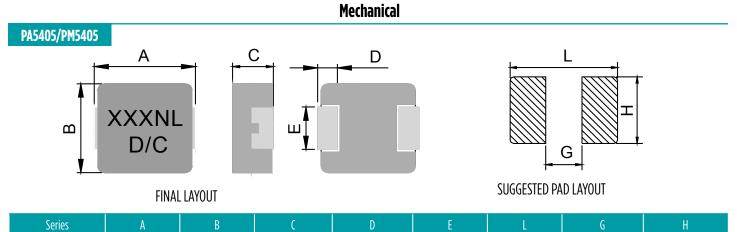
- 1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by placing the 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 those indicated by an \* 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.
- 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.

14.2

8

8. Special characteristics  $\heartsuit$ 



 PA5405/PM5405
 13.5+/-0.5
 12.5+/-0.3
 3.3+/-0.2
 2.3+/-0.3
 4.7+/-0.3

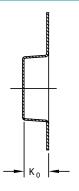
All Dimensions in mm.

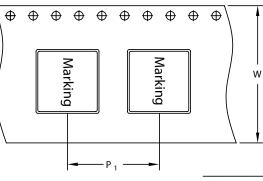
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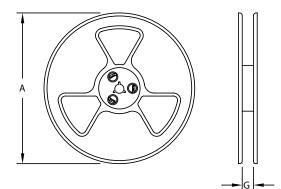
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### **TAPE & REEL INFO**





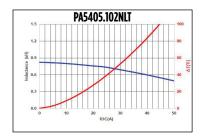


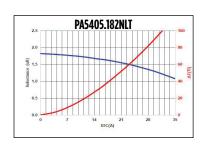
Direction of tape

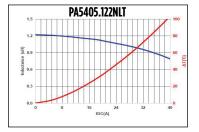
SURFACE MOUNTING TYPE, REEL/TAPE LIST										
	REEL SIZ	'E (mm)	TAPE SIZE (mm)			QTY				
	A	G	<b>P</b> <sub>1</sub>	W	K	PCS/REEL				
PA5405/PM5405	Ø330	24.4	16	24	4	500				

### **Typical Performance Curves**

### PA5405/PM5405

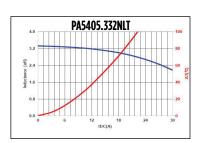








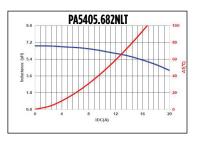




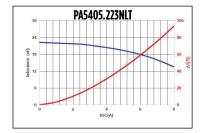
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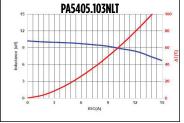


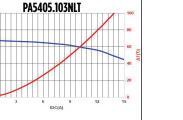


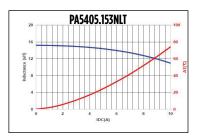


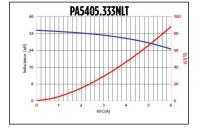


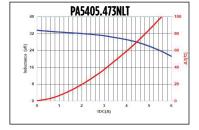












#### For More Information:

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

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