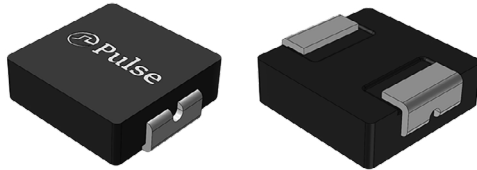


# SMT Power Inductor

Molded Power Inductor - PA5448.XXXNLT and PM5448.XXXNLT



- Ⓟ **Height: 3.0mm Max**
- Ⓟ **Footprint: 9.2mm x 8.5mm Max**
- Ⓟ **Current Rating: up to 30A**
- Ⓟ **Inductance Range: 0.22uH to 15uH**
- Ⓟ *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 -per below

Part Number <sup>6,7</sup>		Inductance (100KHz, 1.0V)	Rated <sup>3</sup> Current	DC Resistance		Saturation <sup>2</sup> Current
Commerical	Automotive		TYP.	TYP.	MAX.	TYP.
(-40°C to 125°C)	(-55°C to 155°C)	uH±20%	A	mΩ	mΩ	A
PA5448.221NLT	PM5448.221NLT	0.22	30.0	1.6	1.84	35
PA5448.331NLT	PM5448.331NLT	0.33	28.0	2.2	2.53	28
PA5448.471NLT	PM5448.471NLT	0.47	25.0	2.7	3.1	24
PA5448.681NLT	PM5448.681NLT	0.68	22.0	3.9	4.5	20
PA5448.821NLT	PM5448.821NLT	0.82	20.0	4.8	5.5	18
PA5448.102NLT	PM5448.102NLT	1.00	18.0	5.9	6.8	16
PA5448.152NLT	PM5448.152NLT	1.50	15.5	7.5	8.6	14.5
PA5448.222NLT	PM5448.222NLT	2.20	13.0	12.5	14.4	12
PA5448.332NLT	PM5448.332NLT	3.30	11.0	18.5	21.3	11.5
PA5448.472NLT	PM5448.472NLT	4.70	9.0	27	31	8
PA5448.562NLT	PM5448.562NLT	5.60	7.5	31	35.7	7.5
PA5448.682NLT	PM5448.682NLT	6.80	7.0	34	39.1	7
PA5448.822NLT	PM5448.822NLT	8.20	6.2	45	51.8	6.4
PA5448.103NLT	PM5448.103NLT	10.0	5.7	51	58.7	5.9
PA5448.153NLT	PM5448.153NLT	15.0	4.7	87	100	4.9

# SMT Power Inductor

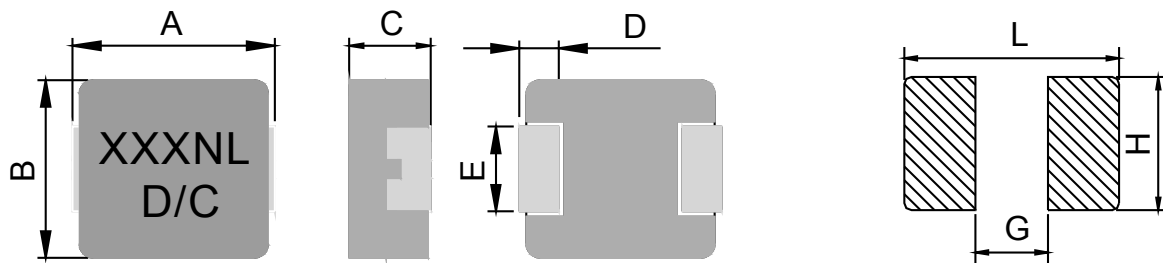
Molded Power Inductor - PA5448.XXXNLT and PM5448.XXXNLT

**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 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' 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 the maximum temperature 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  $\pm 20\%$ , except those indicated by an \* which are  $\pm 30\%$ .
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 availability.
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 Characteristics 

## Mechanical

**PA5448/PM5448**



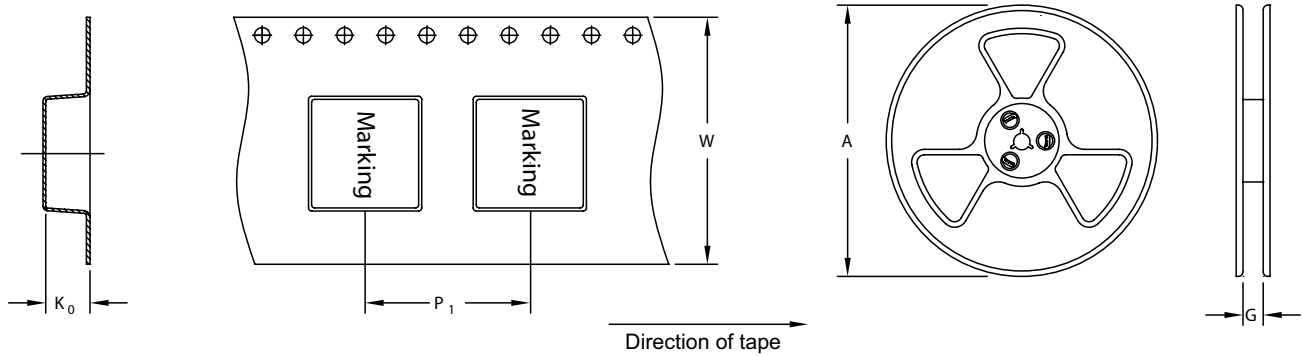
Series	A	B	C	D	E	L	G	H
PA5448/PM5448	8.8±0.4	8.2±0.3	2.8±0.2	1.4±0.3	5.0±0.3	9.5	4.0	5.5

All Dimensions in mm.

# SMT Power Inductor

Molded Power Inductor - PA5448.XXXNLT and PM5448.XXXNLT

## TAPE & REEL INFO

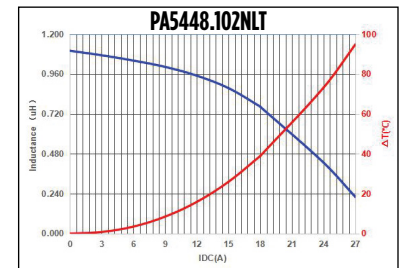
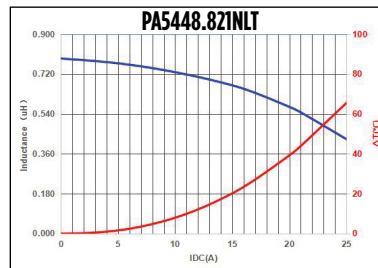
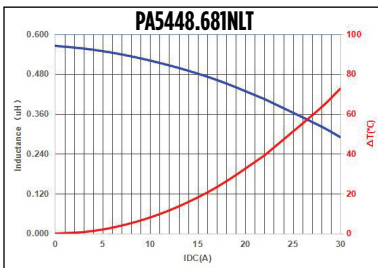
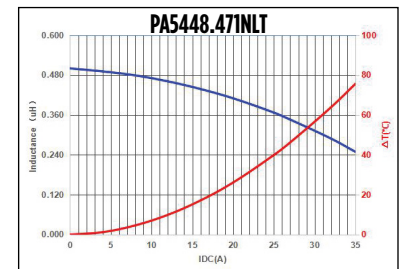
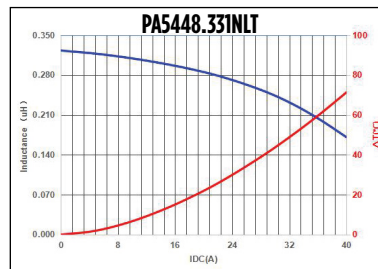
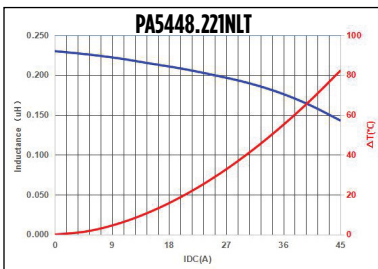


### SURFACE MOUNTING TYPE, REEL/TAPE LIST

	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P <sub>1</sub>	W	K <sub>0</sub>	PCS/REEL
PA5448/PM5448	Ø330	16.4	16	24	3.5	800

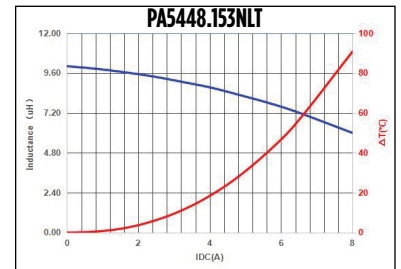
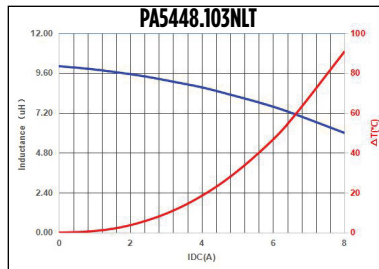
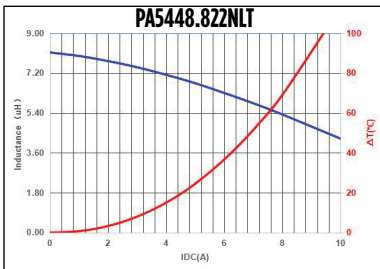
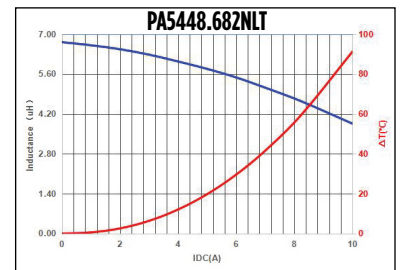
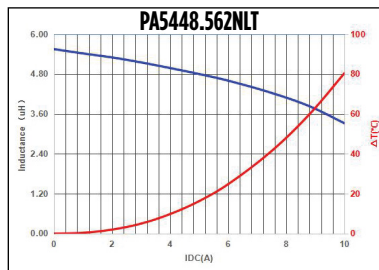
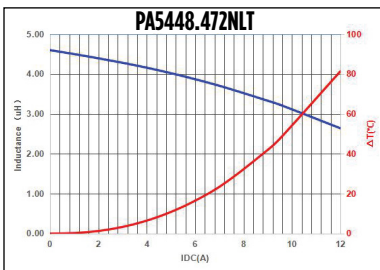
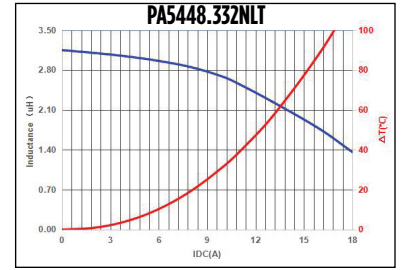
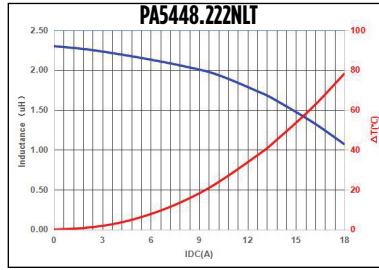
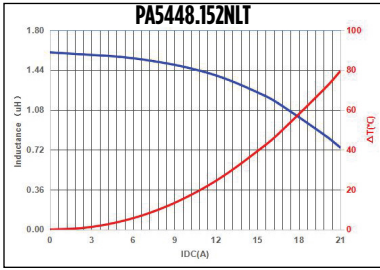
## Typical Performance Curves

### PA5448/PM5448



# SMT Power Inductor

Molded Power Inductor - PA5448.XXXNLT and PM5448.XXXNLT



## For More Information:

Americas - [prodinfo\\_power@pulseelectronics.com](mailto:prodinfo_power@pulseelectronics.com) | Europe - [power-apps-europe@pulseelectronics.com](mailto:power-apps-europe@pulseelectronics.com) | Asia - [power-apps-asia@pulseelectronics.com](mailto:power-apps-asia@pulseelectronics.com)

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