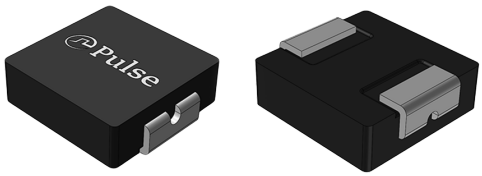
SMT Power Inductors

High Current Molded Power Inductor - PA4346 & PM4346 Series



- ***Height:*** *5mm Max*
- ***Footprint:*** *14mm x 12.8mm Max*
- ***Current Rating:*** *up to 24A*
- ***Inductance Range:*** *1uH to 47uH*
- *High current, low DCR, and high efficiency*
- *High reliability*
- *Minimized acoustic noise and minimized leakage flux noise*
- *200 Vdc Isolation Between Terminal and Core*
- *Available in Commercial (PA) and Automotive (PM) grades*

Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C							
Commercial[6,7]	Automotive[6,7]	Inductance[5] 100KHz, 1.0V	Rated Current	DC Resistance		Saturation Current	SRF Typ (MHz)
			TYP.	TYP.	MAX.	TYP.	
		uH±20%	A	mΩ	mΩ	A	
PA4346.201NLT	PM4346.201NLT	0.2	52	0.45	0.55	110	130
PA4346.221NLT	PM4346.221NLT	0.22	52	0.5	0.7	110	120
PA4346.331NLT	PM4346.331NLT	0.33	42	0.7	0.9	80	90
PA4346.361NLT	PM4346.361NLT	0.36	42	0.75	0.95	75	80
PA4346.391NLT	PM4346.391NLT	0.39	42	0.78	0.95	70	78
PA4346.471NLT	PM4346.471NLT	0.47	38	0.86	1.1	65	70
PA4346.501NLT	PM4346.501NLT	0.5	37	0.9	1.3	60	65
PA4346.561NLT	PM4346.561NLT	0.56	36	1	1.5	55	60
PA4346.681NLT	PM4346.681NLT	0.68	34	1.4	1.7	54	50
PA4346.821NLT	PM4346.821NLT	0.82	31	1.7	2.1	52	45
PA4346.102NLT	PM4346.102NLT	1	29	1.85	2.5	50	40
PA4346.122NLT	PM4346.122NLT	1.2	28	2.5	3	49	35
PA4346.152NLT	PM4346.152NLT	1.5	27	2.8	3.3	48	30
PA4346.182NLT	PM4346.182NLT	1.8	21	4	4.9	40	27
PA4346.222NLT	PM4346.222NLT	2.2	20	4.2	5.5	32	24
PA4346.332NLT	PM4346.332NLT	3.3	15	6.8	9.2	32	22
PA4346.472NLT	PM4346.472NLT	4.7	12	11.4	15	27	15
PA4346.562NLT	PM4346.562NLT	5.6	11.5	12.3	16.5	22	13
PA4346.602NLT	PM4346.602NLT	6	11.5	13	16.5	21.5	12
PA4346.682NLT	PM4346.682NLT	6.8	11	14.5	18.5	21	12
PA4346.822NLT	PM4346.822NLT	8.2	9.5	16.8	22.5	18	11

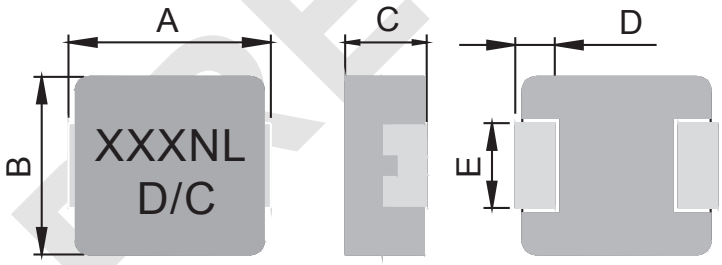
Commercial[6,7]	Automotive[6,7]	Inductance[5] 100KHz, 1.0V	Rated Current	DC Resistance		Saturation Current	SRF Typ (MHz)
			TYP.	TYP.	MAX.	TYP.	
		uH±20%	A	mΩ	mΩ	A	
PA4346.223NLT	PM4346.223NLT	22	6.5	50	58	10	6
PA4346.333NLT	PM4346.333NLT	33	5	73	88	8	5

Notes:

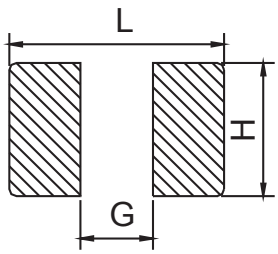
1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by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

PA4346/PM4346



FINAL LAYOUT

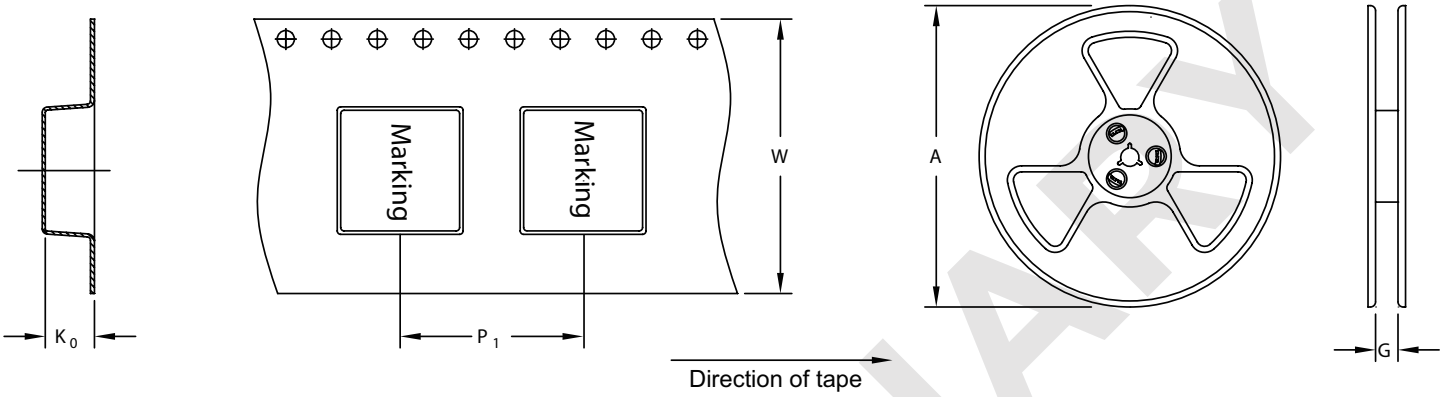


SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	L	G	H
PA4346/PM4346	13.5+/-0.5	12.5+/-0.3	4.8+/-0.2	2.3+/-0.3	4.7+/-0.3	14.2	8	5

All Dimensions in mm.

TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST						
	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P_1	W	K_0	PCS/REEL
PA4346/PM4346	Ø330	24.4	16	24	4	500

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