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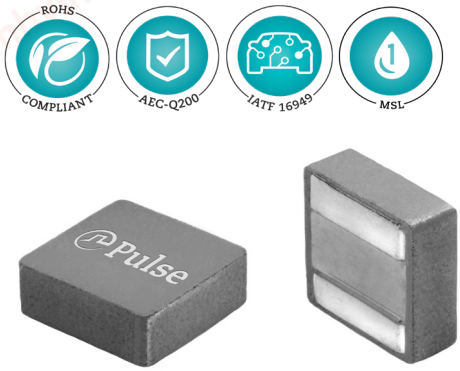
SMT Power Inductors

High Current Composite Inductor - PA2247XXXNLT and PM2247.XXXNLT

Pulse
a YAGEO company



- ***Height:*** *10.0mm Max*
- ***Footprint:*** *16.8mm x 15.8mm Max*
- ***Current Rating:*** *up to 30Arms*
- ***Inductance Range****: 4.7uH to 33.0uH*
- *High current, low DCR, and high efficiency*
- *Rated Voltage between Terminals: 100V*
- *Minimized acoustic noise and minimized leakage flux noise*
- *Available in Commercial (PA2247) and Automotive (PM2247) grades*

Electrical Specifications @ 25°C, Operating Temperature Range -55°C to +155°C

Part Number		▽ Inductance 100KHz, 0.1V	Rated[3] Current	DC Resistance		Saturation Current[2] (25°C)	K Factor for Core Loss
Commerical	Automotive[6]			TYP.	MAX.	TYP.	
		uH±20%	A	mΩ	mΩ	A	
PA2247.472NLT	PM2247.472NLT	4.7	30	3.4	3.8	39	10.9
PA2247.562NLT	PM2247.562NLT	5.6	28	3.82	4.2	34	9.6
PA2247.682NLT	PM2247.682NLT	6.8	26	4.18	4.6	31	9.6
PA2247.822NLT	PM2247.822NLT	8.2	25	6.0	7.2	28	8.6
PA2247.103NLT	PM2247.103NLT	10.0	24	7.1	8.6	26	7.2
PA2247.153NLT	PM2247.153NLT	15.0	18	9.2	11.5	20	6.1
PA2247.223NLT	PM2247.223NLT	22.0	16	13.2	15.8	18	5.0
PA2247.333NLT	PM2247.333NLT	33.0	13	18.7	20.0	16.7	3.9

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 is guaranteed to drop by no more than 40%. The typical inductance at a specified current can be found on the typical performance curves.
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 the upper operating temperature range 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. The PMxxxx.XXXNLT part numbers are AEC-Q200 and IATF16949 certified. The inductance and 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.
6. Special Characteristics ▽

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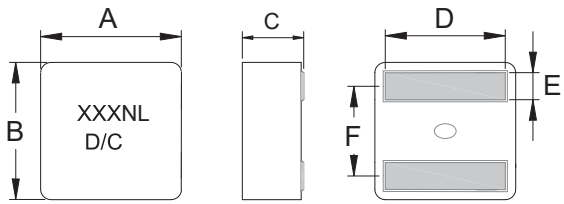
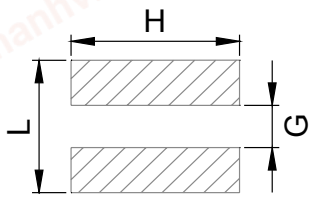
Mechanical

PA2247.XXXNLT and PM2247.XXXNLT



FINAL LAYOUT

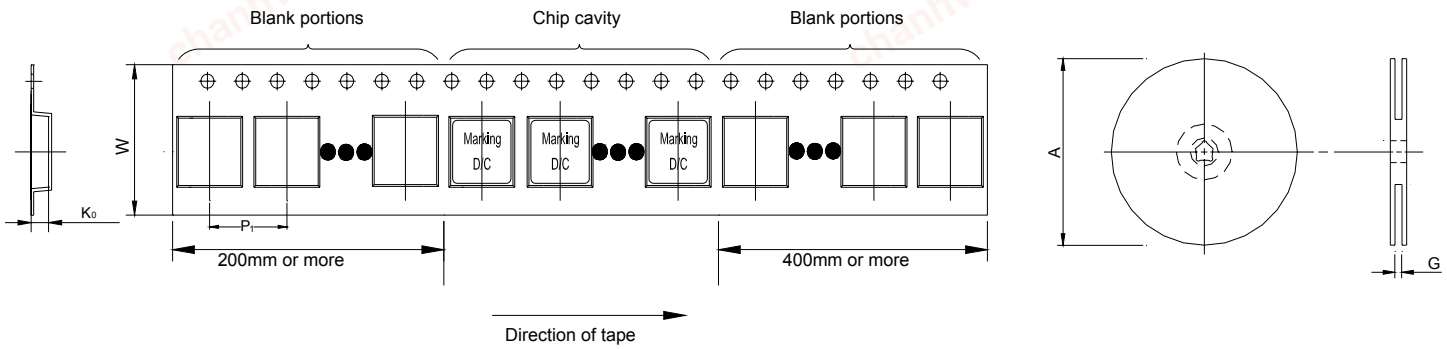


SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	F	L	G	H
PA2247/PM2247	16.5±0.3	15.5±0.3	9.7±0.3	13.2±0.5	3.2±0.2	10.4±0.3	15.0(REF)	6.0 (REF)	15.0(REF

All Dimensions in mm.

TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST						
Series	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P_1	W	K_0	PCS/REEL
PA2247/PM2247	Ø330	32.4	24	32	10.5	150

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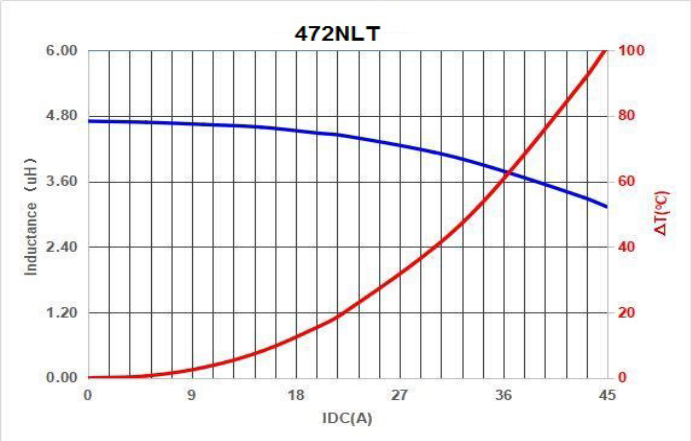
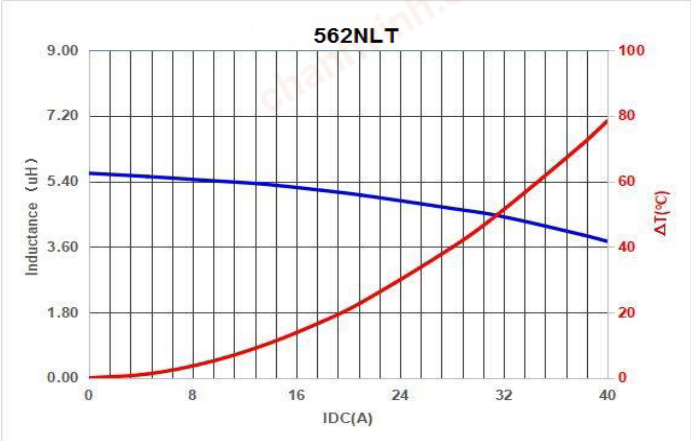
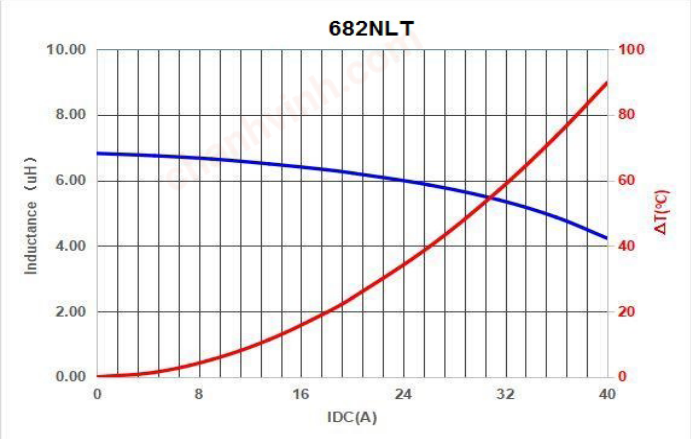
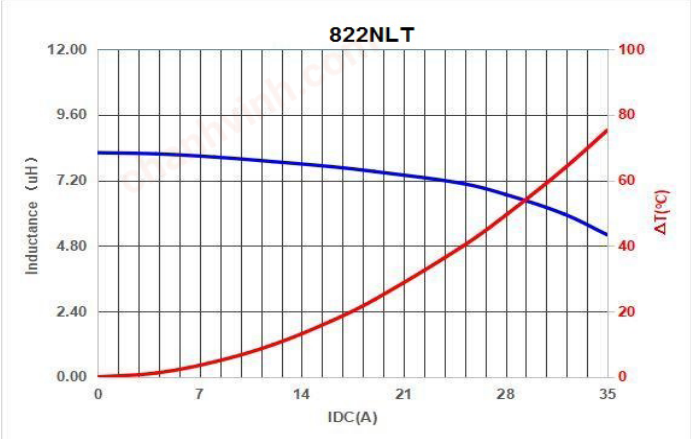
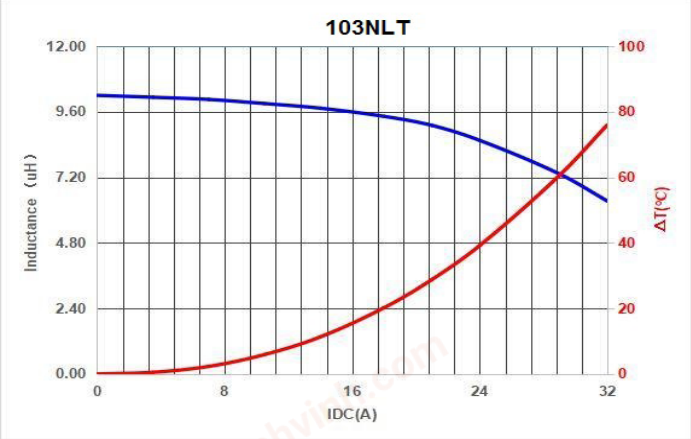
Typical Performance Curves

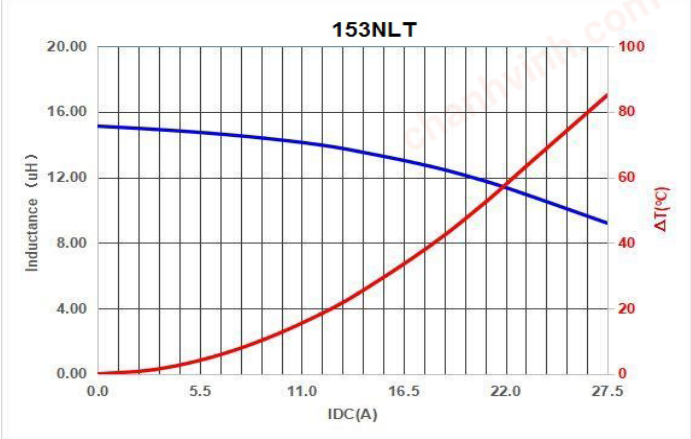












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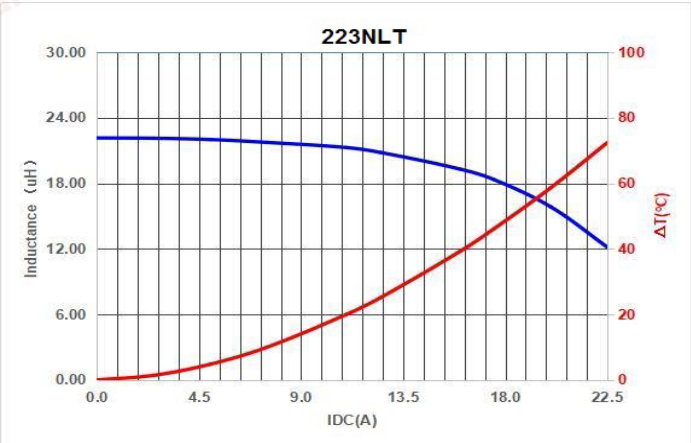
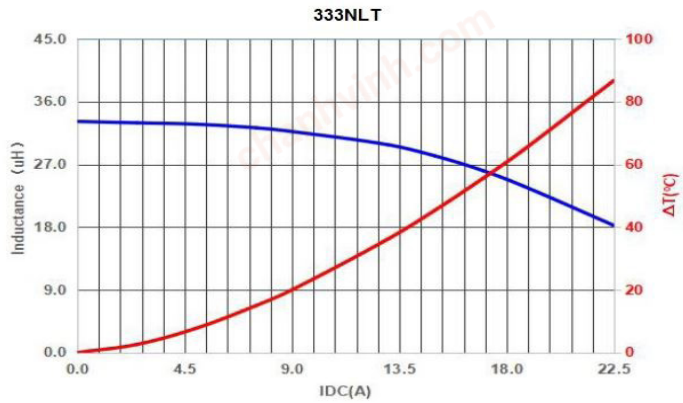
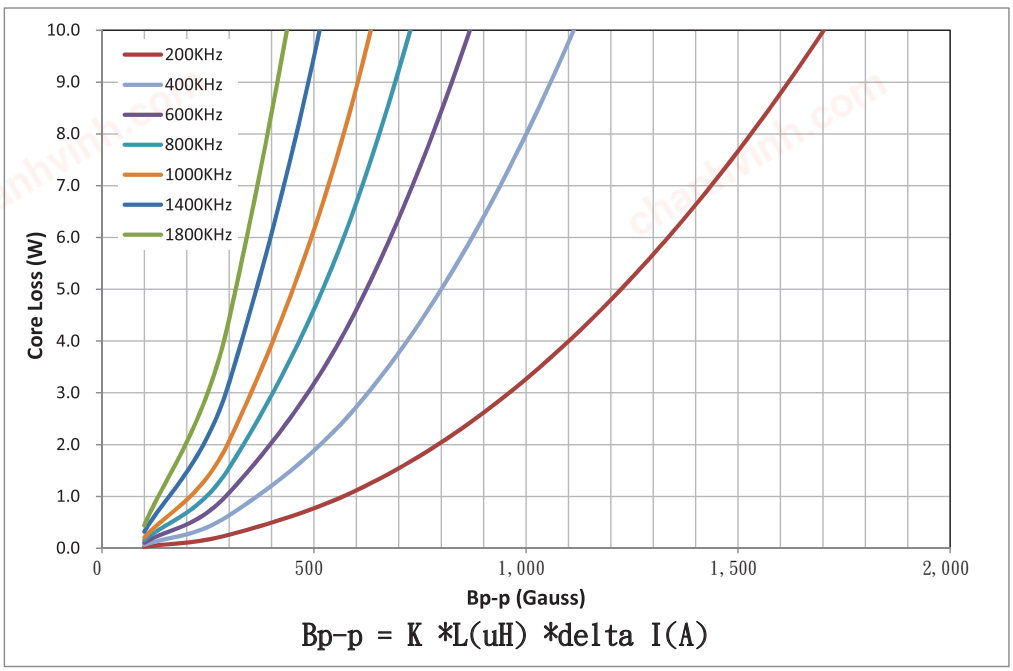




CORE LOSS vs FLUX DENSITY



For More Information:

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