SMT Power Inductors

High Current Composite Inductor - PA2240XXXNLT and PM2240.XXXNLT













Footprint: 8.05mm x 7.85mm Max

@ Current Rating: up to 15Apk

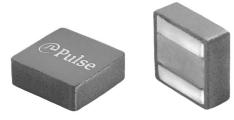
Inductance Range: 3.3uH to 6.8uH

High current, low DCR, and high efficiency

Rated Voltage between Terminals: 60V

Minimized acoustic noise and minimized leakage flux noise

Available in Commercial (PA2240) and Automotive (PM2240) grades



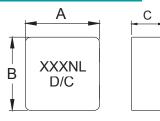
Electrical Specifications @ 25°C, Operating Temperature Range per Below ^{4,5}										
Part Number		□ Inductance	Rated ³	DC Resistance		Saturation Current ² (25°C)		K Factor	Mechanical	
Commerical	Automotive ⁶	100KHz, 0.1V	Current	TYP.	MAX.	TYP.	MAX.	for Core Loss	D	
(-55°C to 125°C)	(-55°C to 155°C)	uH±20%	Α	mΩ	mΩ	A	A		±0.3	
PA2240.332NLT	PM2240.332NLT	3.3	15.1	8.56	9.42	19.4	15.1	40.0	6.7	
PA2240.472NLT	PM2240.472NLT	4.7	13.6	12.2	13.5	15.5	14.0	36.3	6.7	
PA2240.682NLT	PM2240.682NLT	6.8	9.5	17.8	19.6	12.8	11.0	26.4	6.5	

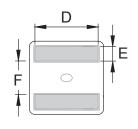
Notes:

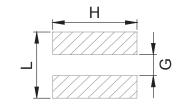
- 1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by 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' 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.
- The PMxxxx.XXXNLT part numbers are AEC-Q200 and IATF16949 certified. 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.
- 6. Special Characteristics 💮

Mechanical

PA2240.XXXNLT and PM2240.XXXNLT







FINAL LAYOUT

SUGGESTED PAD LAYOUT

Series	A	В	C	D	E	F	1	G	Н
PA2240/PM2240	7.8±0.25	7.6±0.25	6.7±0.3	SEE SPEC TABLE	1.75±0.2	3.15±0.25	7.8 (REF)	2.8 (REF)	6.7 (REF)

All Dimensions in mm.

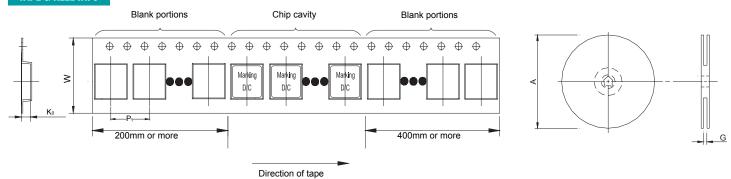
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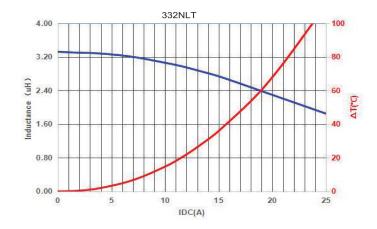


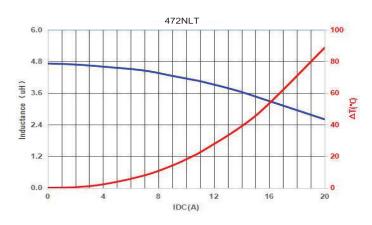
TAPE & REEL INFO

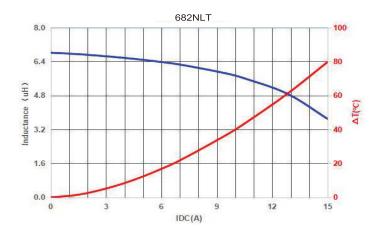


SURFACE MOUNTING TYPE, REEL/TAPE LIST								
	REEL SIZ	E (mm)	TA	QTY				
	Α	G	P ₁	W	$K_{_{0}}$	PCS/REEL		
PA2240/PM2240	Ø330	16.4	12	16	7.3	700		

Typical Performance Curves







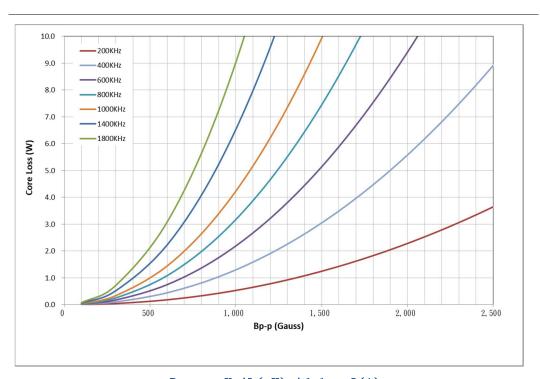
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CORE LOSS vs FLUX DENSITY



Bp-p = K *L(uH) *delta I(A)

For More Information:

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