High Current Composite Inductor - PA2247XXXNLT and PM2247.XXXNLT

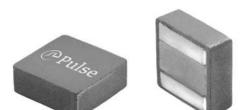












Meight: 10.0mm Max

Footprint: 16.8mm x 15.8mm Max

Current Rating: up to 30ArmsInductance Range: 4.7uH to 33.0uH

High current, low DCR, and high efficiency

Migh reliability

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			Rated³ Current	DC Resistance		Saturation Current ² (25°C)	K Factor for
Commerical	Automotive ⁶	TOOKITE, OHT	Carrent	TYP.	MAX.	TYP.	Core Loss
		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:

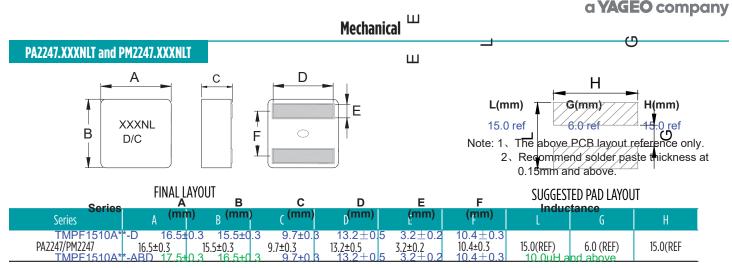
- 1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- The saturation current is the current at which the initial inductance is guaranteed to drop by no more than 40%. The typical inductance at a specified current 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.
- The PMxxxx.XXXNIT 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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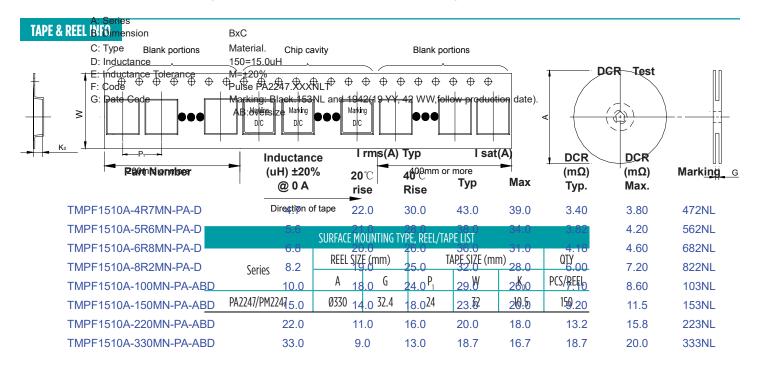
Recommend Pattern Se

High Current Composite Inductor - PA2247XXXNLT and PM2247.XXXNLT DC/DC converter .



All Dimensions in mm.





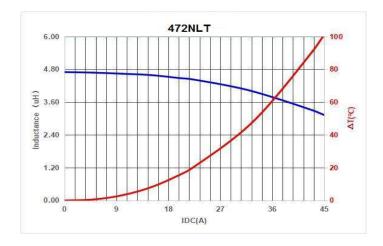
Note:

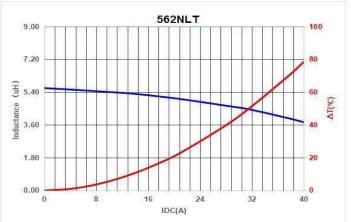
- 1. Test frequency: L: 100KHz /0.1V.
- 2. All test data referenced to 25°C ambient.
- $3. \ \ \mathsf{Testing\ Instrument: L: HP4284A, HP4395A, CH11025, CH3302, CH1320S\ LCR\ METER\ /\ Rdc: CH16502, Agilent 33420A\ MICRO\ OHMMETER, or\ EQU.}$
- 4. Current that causes the specified temperature rise from 25 $^{\circ}\text{C}$ ambient.
- 5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
- 6. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- 7. Special inquiries besides the above common used types can be met on your requirement.
- 8. Rated operating voltage(across inductor) 40V ref.

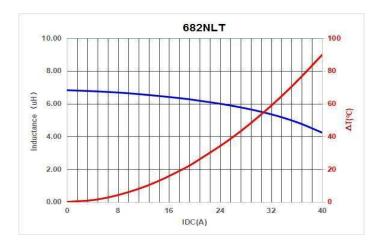
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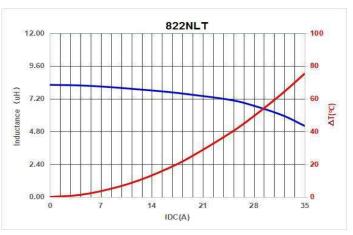


Typical Performance Curves

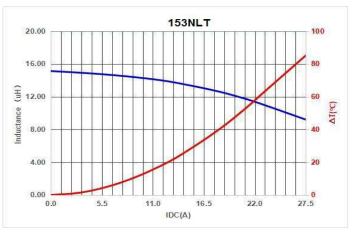








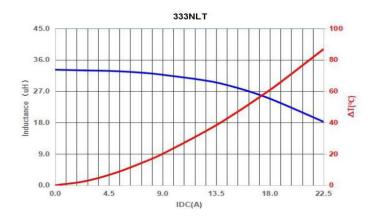




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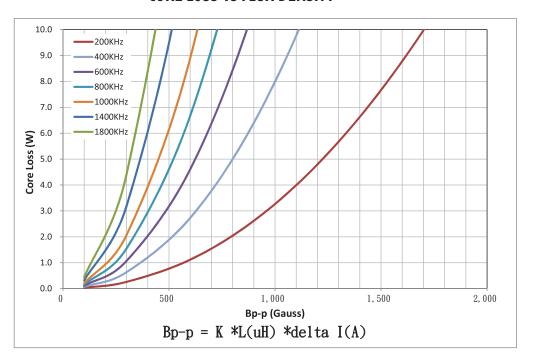
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PM2247-NLT

CORE LOSS vs FLUX DENSITY



For More Information:

Americas - prodinfo_power@pulseelectronics.com | Europe - power-apps-europe@pulseelectronics.com | Asia - power-apps-asia@pulseelectronics.com

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