SMT Power Inductors

Power Beads - PA2083NL Series

- ***Current Rating:*** *Over 90Apk*
- ***Inductance Range:*** *70nH to 205nH*
- ***Height:*** *7.0mm Max*
- ***Footprint:*** *7.6mm x 7.4mm Max*

Electrical Specifications @ 25°C – Operating Temperature -40°C to +130°C [7]

Part Number	Inductance @ 0A$_{DC}$ (nH ±10%)	Inductance @ Irated (nH TYP)	Irated [1] (A_{DC})	DCR [2] (mΩ)	Saturation Current [3] (A TYP)		Heating [4] Current (A TYP)
					25°C	100°C	
PA2083.700NL *	70	70	27	0.60 ±8%	93	75	27
PA2083.101NL *	105	105	27		61	54	
PA2083.121NL *	120	120	27		55	48	
PA2083.161NL *	160	160	27		41	38	
PA2083.181NL *	185	170	27		36	33	
PA2083.201NL *	205	177	27		32	29	

Notes:

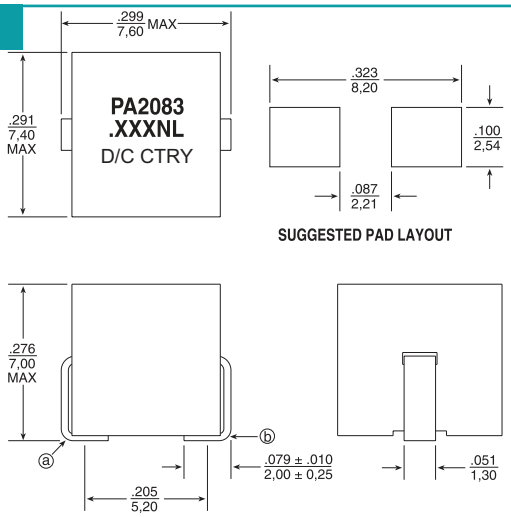
1. The rated current as listed is either the saturation current or the heating current depending on which value is lower.
2. The nominal DCR is measured from point ⓐ to point ⓑ , as shown on the mechanical drawing below.
3. The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C and 100°C). This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
4. The heating current is the DC current which causes the part temperature to increase by approximately 40°C.

* Contact Pulse for availability

5. In high volt*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. To determine the approximate total losses (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.
6. Optional tape and reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PA2083.700NL becomes PA2083.700NL**T**). Pulse complies to industry standard tape and reel specification EIA481.
7. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

Mechanical

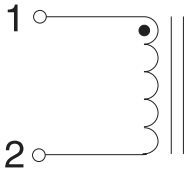
PA2083.XXXNL

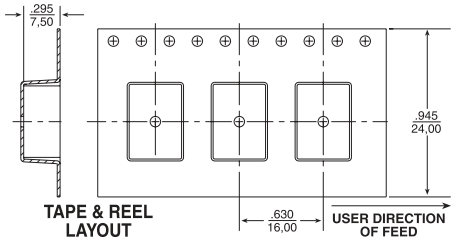


Weight .....1.5 grams
Tape & Reel 500/reel
Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

Schematic





USA 858 674 8100 Germany 49 7032 7806 0 Singapore 65 6287 8998 Shanghai 86 21 62787060 China 86 755 33966678 Taiwan 886 3 4356768

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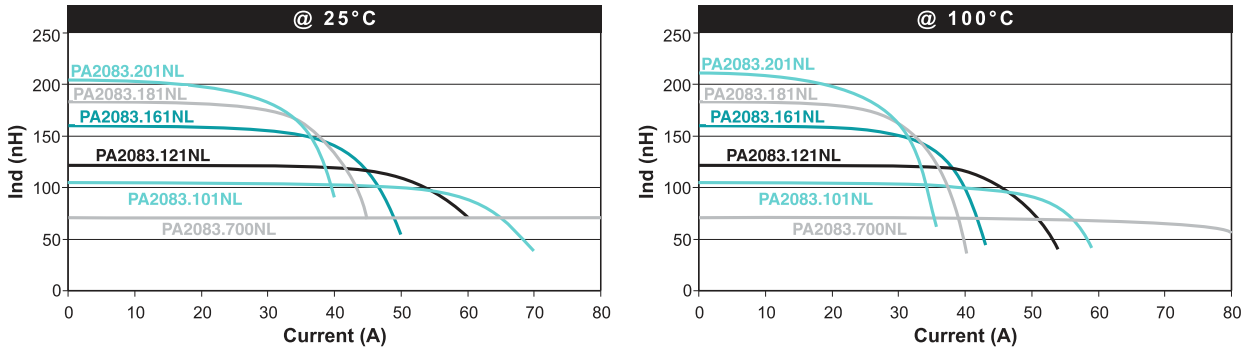
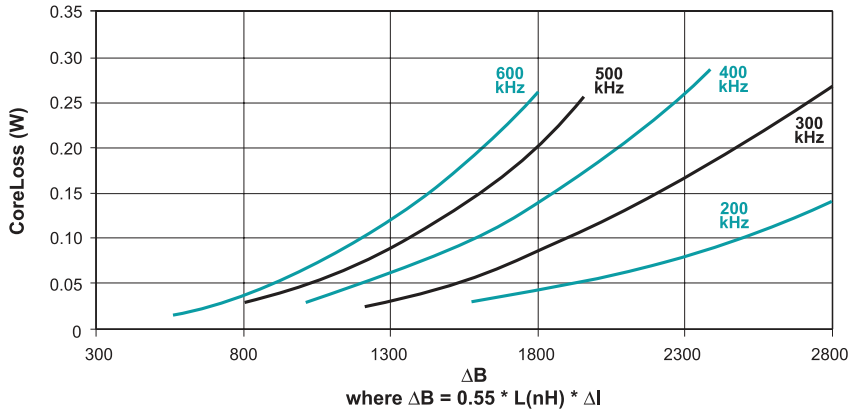
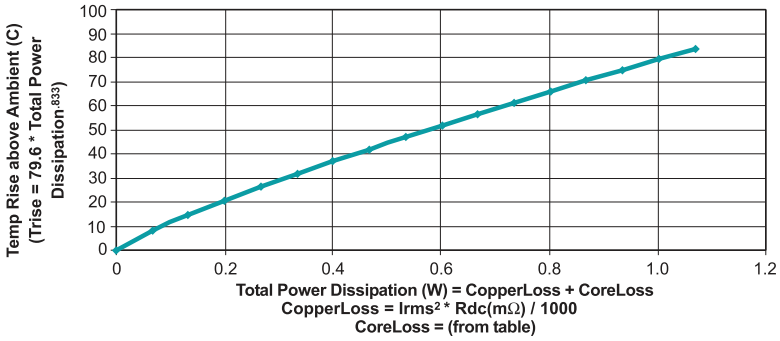
Lvsl for PA2083.XXXNL Series



CoreLoss (W) for PA2083.XXXNL Series



Temp Rise vs Power Dissipation for PA2083.XXXNL Series



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