

SMT Power Inductors

Power Beads - PA2083NL Series



- Current Rating:** Over 90A_{pk}
- 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°C⁷

Part Number	Inductance @ 0A _{DC} (nH ±10%)	Inductance @ I _{rated} (nH TYP)	I _{rated} 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	

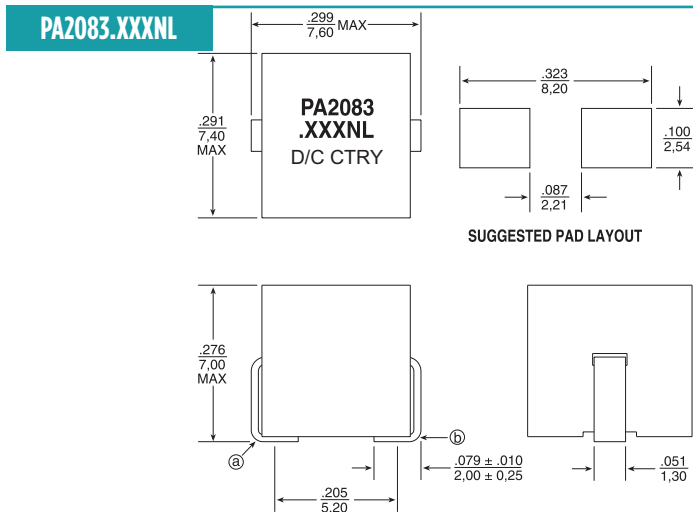
Notes:

- The rated current as listed is either the saturation current or the heating current depending on which value is lower.
- The nominal DCR is measured from point (a) to point (b), as shown on the mechanical drawing below.
- 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.
- The heating current is the DC current which causes the part temperature to increase by approximately 40°C.
- 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.
- Optional tape and reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA2083.700NL becomes PA2083.700NLT). Pulse complies to industry standard tape and reel specification EIA481.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

* Contact Pulse for availability

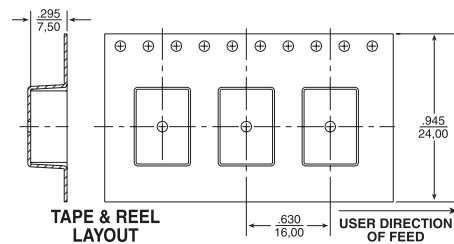
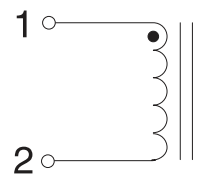
Mechanical

Schematic



Weight1.5 grams
Tape & Reel500/reel
Dimensions: Inches/mm

Unless otherwise specified, all tolerances are ± .010 / 0.25



USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

Shanghai 86 21 62787060

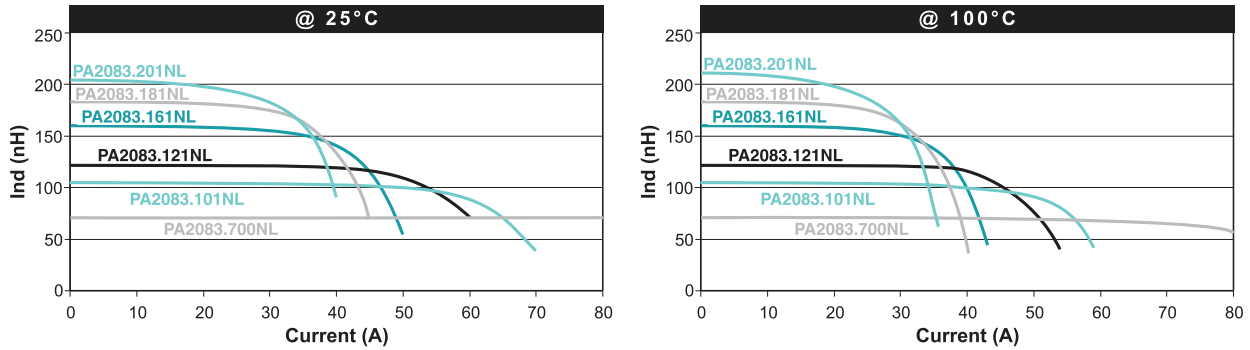
China 86 755 33966678

Taiwan 886 3 4356768

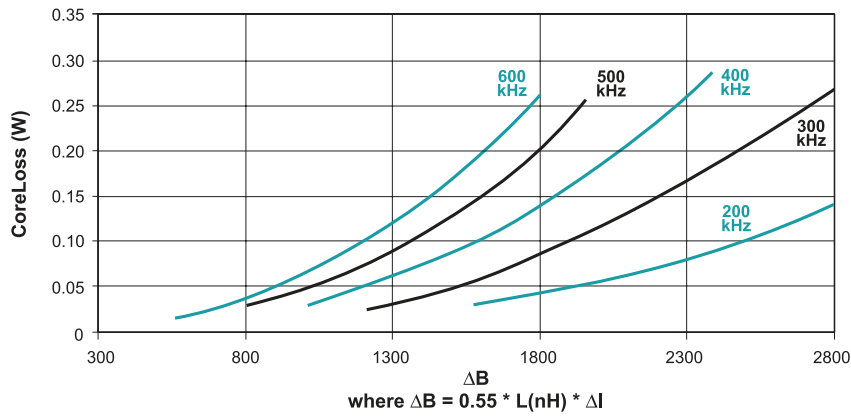
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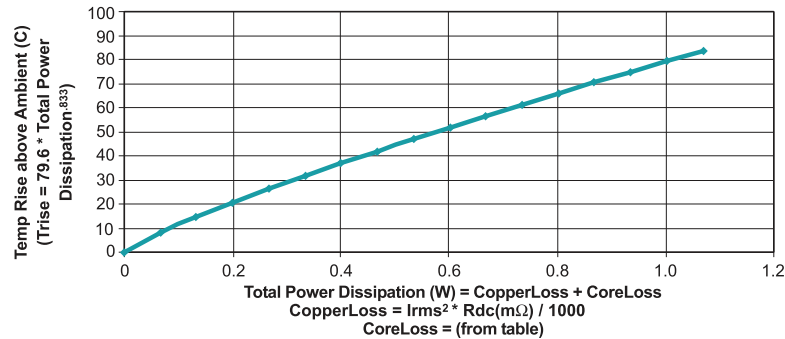
Lvlsl for PA2083.XXXNL Series



CoreLoss (W) for PA2083.XXXNL Series



Temp Rise vs Power Dissipation for PA2083.XXXNL Series



For More Information

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA
92128
U.S.A.

Pulse Europe
Einsteinstrasse 1
D-71083 Herrenberg
Germany

Pulse China Headquarters
B402, Shenzhen Academy of
Aerospace Technol-
ogy Bldg.
10th Kejian Road
High-Tech Zone
Nanshan District
Shenzhen, PR China
518057
Tel: 86 755 3396678
Fax: 86 755 33966700

Pulse North China
Room 2704/2705
Super Ocean Finance
Ctr.
2067 Yan An Road
West
Shanghai 200336
China
Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia
135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363
Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia
3F, No. 198
Zhongyuan Road
Zhongli City
Taoyuan County 320
Taiwan R. O. C.
Tel: 886 3 4356768
Fax: 886 3 4356823 (Pulse)
Fax: 886 3 4356820 (FRE)

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