SMT Power Inductors

Power Beads - PA1682NL Series



- ***Current Rating:*** *Over 75Apk*
- ***Inductance Range:*** *70nH to 175nH*
- ***Height:*** *4.0mm Max*
- ***Footprint:*** *8.0mm x 7.0mm Max*

Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

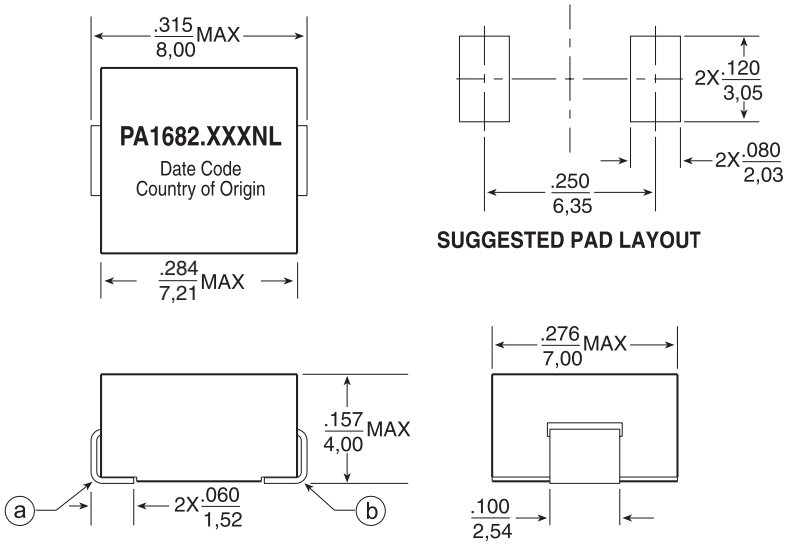
Part Number	Inductance @0ADC (nH ±20%)	Inductance @ Irated (nH TYP)	Irated[1] (ADC)	DCR[2] (mΩ MAX)	Saturation Current[3] (A TYP)		Heating[4] Current (A TYP)
					25°C	100°C	
PA1682.700NL	70	70	31	0.5 ±8%	63	60	31
PA1682.101NL	100	100	40		46	40	
PA1682.151NL	140	112	28		34	28	
PA1682.181NL	175	140	22		26	22	

Notes

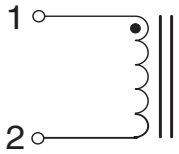
1. The rated current as listed is either the saturation current or the heating current depending on which value is lower.
2. The nominal DCR is measured from point ⓐ to point ⓑ, as shown below on the mechanical drawing.
3. The saturation current is the typical current which causes the inductance to drop 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. This current is determined by soldering the component on a typical application PCB, and then applying the current to the device for 30 minutes with 25LFM of forced air cooling.
5. In high volt*time applications, additional heating in the component can occur due to core losses in the inductor which may neccessitate 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 & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA1682.700NL becomes PA1682.700NLT).
   Pulse complies to industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=24mm), pitch (Po=12.0mm) and depth (Ko=4.2mm).
7. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

Mechanicals

PL2085



Schematics

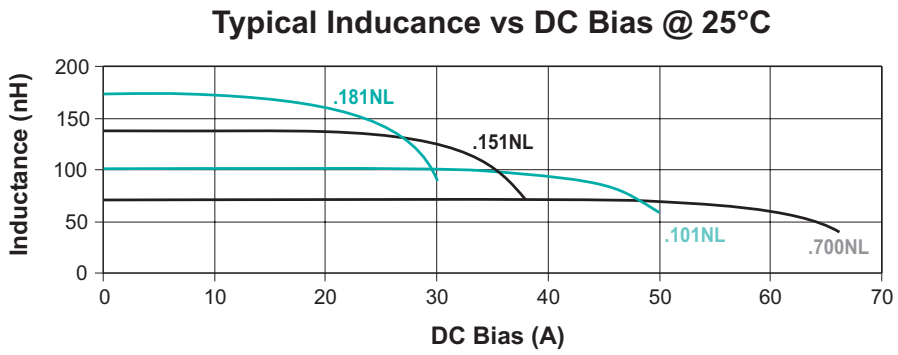


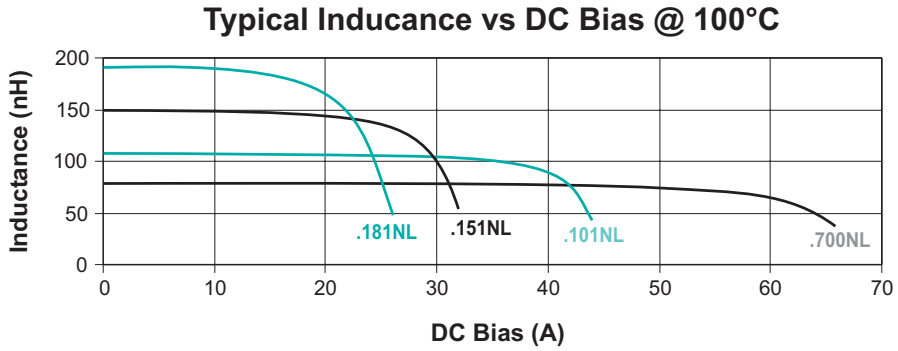
Weight . . . . . 0.94 grams
Tape & Reel 1200/tray
Dimensions: Inches / mm
Unless otherwise specified, all tolerances are ± .010 / 0,25

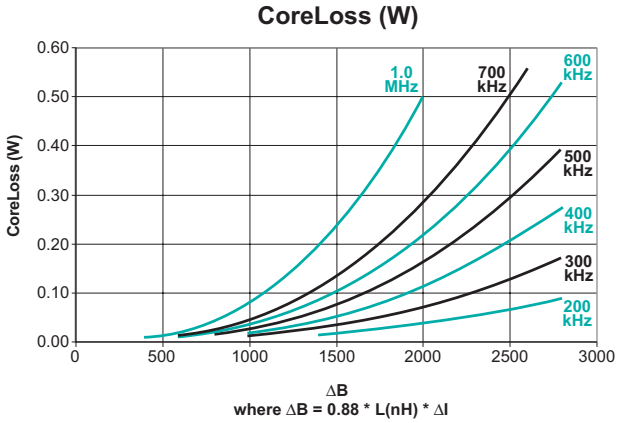
USA 858 674 8100 Germany 49 7032 7806 0 Singapore 65 6287 8998 Shanghai 86 21 62787060 China 86 755 33966678 Taiwan 886 3 4356768

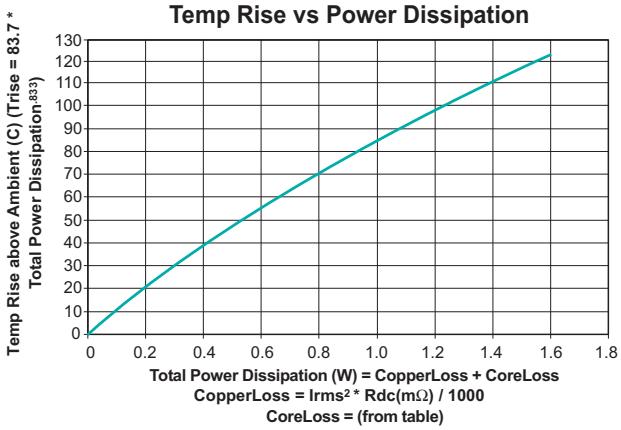
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