

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SMT Power Inductor

Round Wire Coils - PG0926NL series









🥟 **Inductance Range:** 0.46µH to 22.0µH

Current Rating: up to 50Apk

Footprint: 13.4mm x 13.4mm Max

Height: 8.0mm MaxNo Thermal Aging

Electrical Specifications @ 25°C - Operating Temperature -40°C to 130°C1											
Part Number	Inductance @ Irated ² µH TYPICAL	Irated ³ (A)	CONTROLLED ELECTRICAL SPECS		SATURATION⁵ CURRENT Isat (A TYP)		HEATING ⁶ Current idc	CORE LOSS7			
			DCR4 (mΩ) ±12%	INDUCTANCE @0Adc (µ ±20%)	25°C	100°C	(A TYP)	(K2)			
PG0926.461NL	0.42	44	0.55	0.46	50	40	44	32.9			
PG0926.102NL	0.94	30	1.2	1.00	34	27	30	47.6			
PG0926.182NL	1.7	22	2.2	1.80	25	21	22	64.3			
PG0926.282NL	2.6	19	2.9	2.80	20	16	19	80.0			
PG0926.562NL	5.0	14	4.1	5.60	14	11.5	14.5	114.3			
PG0926.722NL	6.8	12	7.0	7.20	12.5	10	12	128.6			
PG0926.872NL	8.4	11	8.0	8.70	11.5	9	11	138.1			
PG0926.113NL	10.6	9.5	12.0	11.50	10.5	8	9.5	157.1			
PG0926.153NL	13.5	8	12.5	15.00	9	7	8	194.8			
PG0926.223NL	20	7	21.0	22.00	7.5	6	7	224.5			

Notes:

- Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- 2. Inductance at Irated is a typical inductance value for the component taken at rated current.
- 3. The rated current listed is either the saturation current (@ 25°C) or the heating current depending on which value is lower.
- 4. The DCR of the part is measured at an ambient temperature of $20^{\circ}\text{C} \pm 3^{\circ}\text{C}$ from point a to b as shown below on the mechanical drawing.
- 5. The saturation current, Isat, is the current at which the component inductance drop by 20% (typical) at an ambient temperature. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effect) to the component.
- 6. The heating current, Idc, is the DC current required to raise the component temperature by approximately 40°C. The heating current is determined by mounting the component on a typical PCB and applying current for 30 minutes. The temperature is measured by placing the thermocouple on top of the unit under test. Take note that the components' performance varires 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.

7. Core loss approximation is based on published core data:

Core Loss = K1 * $(f)^{1.72}$ * $(K2\Delta I)^{2.41}$ in mW

K1 = 8.68E - 10

f = switching frequency in KHz

K1 & K2 = core loss factors

 ΔI = delta I across the component in Ampere

 $K2\Delta I$ = one half of the peak to peak flux density across the component in Gauss

- Unless otherwise specified, all testing is made at 100KHz, 0.1Vac
- Optional Tape and Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PG0926.223NL becomes PG0926.223NLT). Pulse complies with industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=32.0mm), pitch (Po=20.0mm) and depth (Ko=8.35mm).
- 10. The core is a conductive material so care should be taken when mounting this component over an exposed via or if the voltage across the terminals exceeds 24V. Trickle current through the core material may generate additional losses and potential overheating. Please contact Pulse to discuss an alternative solution if required.

USA 858 674 8100 Germany 49 2354 777 100 Singapore 65 6287 8998 Shanghai 86 21 62787060 China 86 755 33966678 Taiwan 886 3 4356768

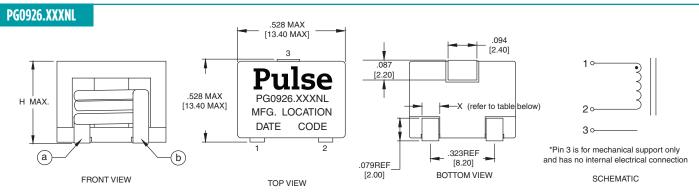
pulseelectronics.com P700.C (12/16)

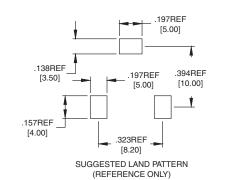
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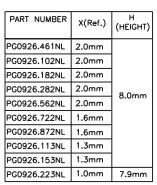
Mechanicals Schematics



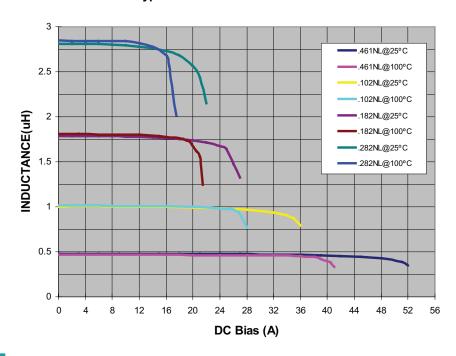


Dimensions: inched mm

Unless otherwise specified, all tolerance are $^{+.010}_{-0.25}$



Typical Inductance vs DC Bias

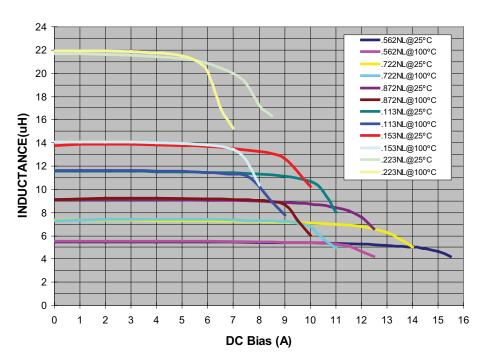


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Typical Inductance vs DC Bias



For More Information

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