SMT Power Inductors

Flat Coils - PG0426 Series



- *Height: 3.2mm Max*
- *Footprint: 7.5mm x 7.0mm Max*
- *Current Rating: 60Apk*
- *Inductance Range: 0.1µH to 1.5µH*
- *High temperature core material, no thermal aging below 150°C*

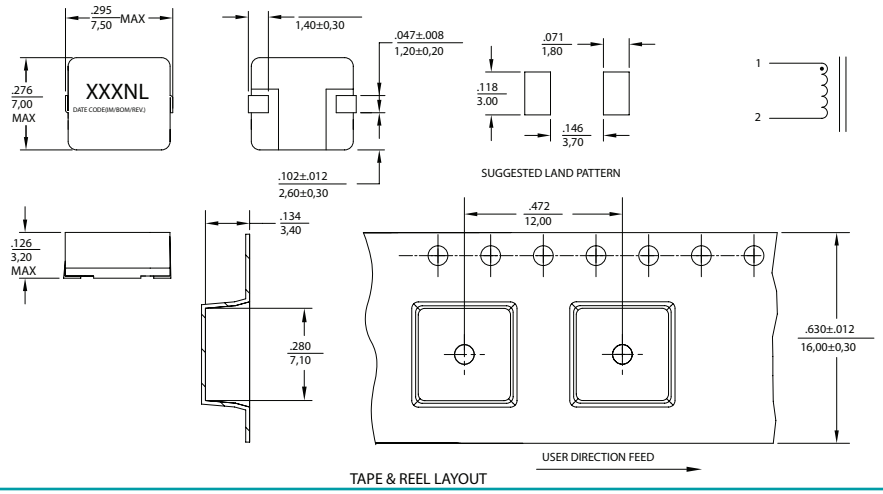
Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C[1]						
Part Number	**Inductance @ Irated** (µH ±20%)	**DCR** (mΩ)		**Saturation[2] Current Isat** (A)	**Heating[3] Current IDC** (A)	**Core Loss[4] Factor K2**
		TYP	**MAX**			
PG0426.101NL	0.10	1.3	1.5	60	34.5	44.4
PG0426.151NL	0.15	2.0	2.2	57	26.0	40.0
PG0426.201NL	0.20	2.0	2.2	46	26.0	53.3
PG0426.221NL	0.22	2.0	2.2	40	26.0	58.6
PG0426.331NL	0.33	3.2	3.4	34	20.0	62.8
PG0426.471NL	0.47	3.2	3.4	26	20.0	89.4
PG0426.681NL	0.68	5.2	5.4	25	15.5	100.6
PG0426.821NL	0.82	7.8	8.0	24	13.0	99.3
PG0426.102NL	1.00	7.8	8.0	22	13.0	121.1
PG0426.152NL	1.50	11.5	11.8	18	9.0	153.6

Notes:

1. The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
2. The saturation current, ISAT, is the current at which the component inductance drops by 30% (typical) at an ambient temperature of 25°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.
3. 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 component's performance 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. Core loss approximation is based on published core data:
   Core Loss = K1 * $(f)^{1.33}$ * $(K2\Delta I)^{2.51}$
   Where: Core Loss = in Watts
   f = switching frequency in kHz
   K1 & K2 = core loss factors
   ΔI = delta I across the component in Ampere
   K2ΔI = one half of the peak to peak flux density across the component in Gauss
5. Unless otherwise specified, all testing is made at 100kHz, 0.1V_{AC}.
6. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PG0426.101NL becomes PG0426.101NL**T**). Pulse complies to industry standard tape and reel specification EIA481.

Mechanical

PG0426.XXXNL

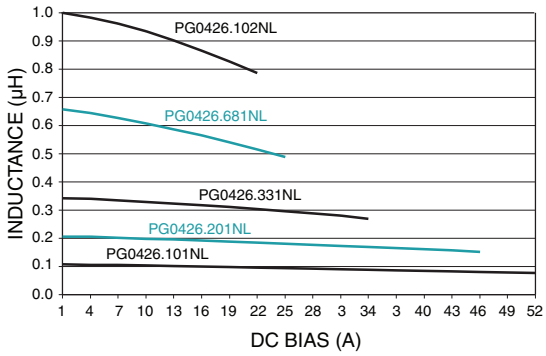


TAPE & REEL LAYOUT

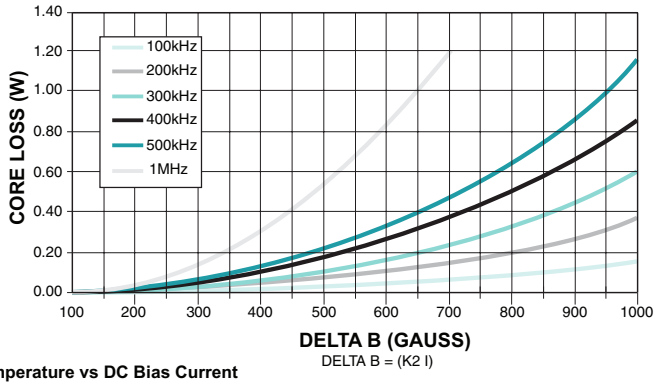
Schematic

Chart

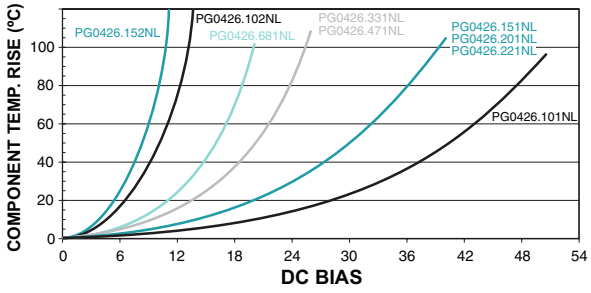
Inductance vs Current Characteristics



Typical Core Loss vs Peak Flux Density



Typical Component Temperature vs DC Bias Current



For More Information

Pulse Worldwide Headquarters
15255 Innovation Drive Ste 100
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe
Pulse Electronics GmbH
Am Rottland 12
58540 Meinerzhagen
Germany

Tel: 49 2354 777 100
Fax: 49 2354 777 168

Pulse China Headquarters
Pulse Electronics (ShenZhen) CO., LTD
D708, Shenzhen Academy of
Aerospace Technology,
The 10th Keji South Road,
Nanshan District, Shenzhen,
P.R. China 518057

Tel: 86 755 33966678
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
3 Fraser Street 0428
DUO Tower
Singapore 189352

Tel: 65 6287 8998
Fax: 65 6280 0080

Pulse North Asia
1F., No.111 Xiyuan Road
Zhongli District
Taoyuan City 32057
Taiwan (R.O.C)

Tel: 886 3 4356768
Fax: 886 3 4356820

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2019. Pulse Electronics, Inc. All rights reserved.