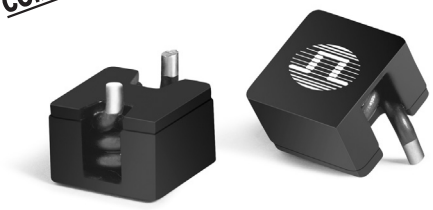
THT POWER INDUCTORS
Power Cube Inductors - PG0200NL Series

Pulse
A TECHNITROL COMPANY

RoHS COMPLIANT

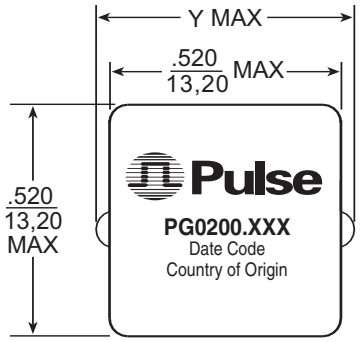


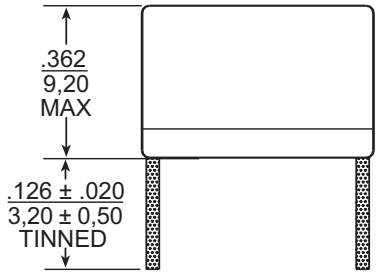
- **Height:** 9.2mm Max
- **Footprint:** 16.0mm x 13.2mm Max
- **Current Rating:** up to 60Apk
- **Inductance Range:** 0.21µH to1.60µH

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C [1]

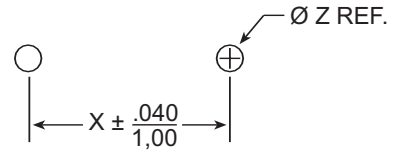
Part[8] Number	Inductance[2] @Irated (µH TYP)	Irated[3] (A)	DCR (mΩ) TYP	DCR (mΩ) MAX	Inductance @0ADC (µH ±15%)	Saturation[4] Current ISAT (A)	Heating[5] Current IDC (A)	Core Loss[6] Factor (K1)	Core Loss[6] Factor (K2)
PG0200.221NL	0.21	45	0.45	0.60	0.22	60+	45	5.12E-09	12.83
PG0200.351NL	0.32	45	0.45	0.60	0.35	55	45	5.12E-09	20.41
PG0200.451NL	0.43	29	1.10	1.45	0.45	50	29	5.12E-09	18.74
PG0200.601NL	0.57	29	1.10	1.45	0.60	45	29	5.12E-09	24.99
PG0200.801NL	0.76	23	2.10	2.40	0.80	44	23	5.12E-09	25.92
PG0200.102NL	0.88	23	2.10	2.40	1.0	35	23	5.12E-09	32.39
PG0200.132NL	1.23	19	2.55	3.00	1.3	34	19	5.12E-09	34.46
PG0200.152NL	1.42	19	2.55	3.00	1.5	25	19	5.12E-09	39.76
PG0200.182NL	1.60	19	2.55	3.00	1.8	20	19	5.12E-09	47.71

Mechanical



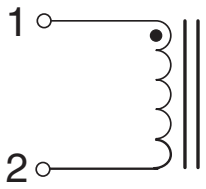


Part No.	X (in./mm)	Y (in./mm)	Z (in./mm)
PG0200.221	.492/12,50	.630/16,00	.087/2,20
PG0200.351	.492/12,50	.630/16,00	.087/2,20
PG0200.451	.500/12,70	.618/15,70	.063/1,60
PG0200.601	.500/12,70	.618/15,70	.063/1,60
PG0200.801	.394/10,00	.512/13,00	.051/1,30
PG0200.102	.394/10,00	.512/13,00	.051/1,30
PG0200.132	.433/11,00	.551/14,00	.051/1,30
PG0200.152	.433/11,00	.551/14,00	.051/1,30
PG0200.182	.433/11,00	.551/14,00	.051/1,30



SUGGESTED PAD LAYOUT

Schematic



Weight . . . . . .7.2 grams
Tray 130/tray

Dimensions: Inches / mm
Unless otherwise specified, all tolerances are ± .010 / 0,25

Notes from Tables

1. The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
2. Inductance at Irated is a typical inductance value for the component taken at rated current.
3. The rated current listed is the lower of the saturation current @ 25°C or the heating current.
4. The saturation current, Isat, is the current at which the component inductance drops by 15% (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.
5. The heating current, I_{DC}, 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.
6. Core loss approximation is based on published core data:

   Core Loss = $K1 * (f)^{1.26} * (K2\Delta I)^{2.11}$

   Where: Core Loss = in Watts

   f = switching frequency in kHz

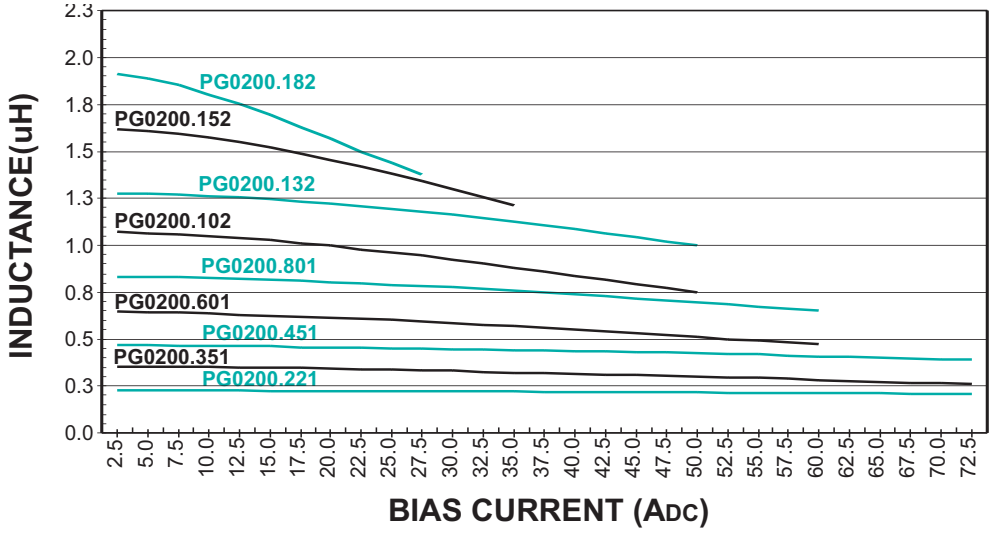
   K1 & K2 = core loss factors

   ΔI = delta I across the component in Ampere

   K2ΔI = one half of the peak to peak flux density across the component in Gauss

7. Unless otherwise specified, all testing is made at 100kHz, 0.1V_{AC}.
8. The "**NL**" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "**NL**" suffix, but an RoHS compliant version is required, please contact Pulse for availability.

Typical Inductance vs DC Bias Current Characteristics



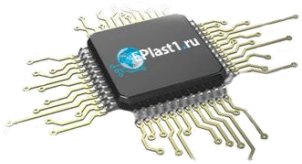
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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