

THT Power Inductors

Power Beads - PA2080NL, PA1894NL, PA2150NL, and PA2125NL Series



- Desktop/Server Vcore Inductors
- DCR Tolerance: $\pm 4\%$
- Current Rating: Over 80Apk
- Inductance Range: 140 μ H to 470 μ H

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 | |
| PA2080NL Series - 10.5mm x 7.5mm x 8.9mm MAX | | | | | | | |
| PA2080.141NL * | 140 | 140 | 40 | 0.49 ±4.1% | 85 | >80 | 40 |
| PA2080.161NL | 165 | 160 | 40 | | 70 | 60 | |
| PA2080.191NL * | 185 | 182 | 40 | | 65 | 55 | |
| PA2080.221NL | 215 | 207 | 40 | | 55 | 50 | |
| PA1894NL Series - 10.0mm x 9.0mm x 10.0mm MAX | | | | | | | |
| PA1894.191NL | 185 | 185 | 35 | 0.64 ±4.6% | 69 | 55 | 35 |
| PA1894.221NL * | 220 | 220 | 35 | | 63 | 51 | |
| PA1894.271NL | 250 | 250 | 35 | | 53 | 46 | |
| PA1894.331NL * | 335 | 268 | 35 | | 40 | 35 | |
| PA2150NL Series - 11.8mm x 9.0mm x 9.2mm MAX | | | | | | | |
| PA2150.181NL * | 180 | 180 | 37 | 0.50 ±4.0% | 74 | 67 | 37 |
| PA2150.231NL | 235 | 235 | 37 | | 56 | 50 | |
| PA2150.261NL * | 270 | 270 | 37 | | 52 | 44 | |
| PA2150.371NL | 370 | 296 | 36 | | 36 | 32 | |
| PA2150.471NL * | 470 | 376 | 27 | | 27 | 25 | |
| PA2125NL Series - 15.9mm x 9.0mm x 9.2mm MAX | | | | | | | |
| PA2125.251NL * | 250 | 250 | 34 | 0.62 ±6.5% | 68 | 63 | 34 |
| PA2125.281NL * | 285 | 285 | 34 | | 66 | 56 | |
| PA2125.331NL * | 335 | 335 | 34 | | 56 | 50 | |
| PA2125.361NL | 360 | 360 | 34 | | 52 | 46 | |
| PA2125.441NL | 440 | 440 | 34 | | 42 | 38 | |

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

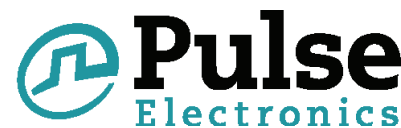
Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

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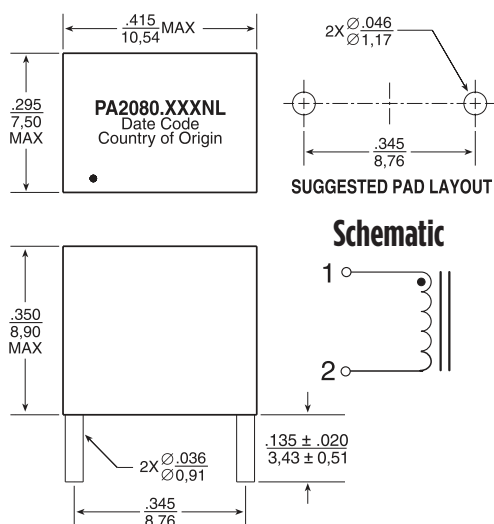
Notes:

1. The rated current as listed is either the saturation current or the heating current depending on which value is lower.
2. 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.
3. The heating current is the DC current which causes the part temperature to increase by approximately 40°C.
4. 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 core loss and temperature rise curves can be used.
5. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

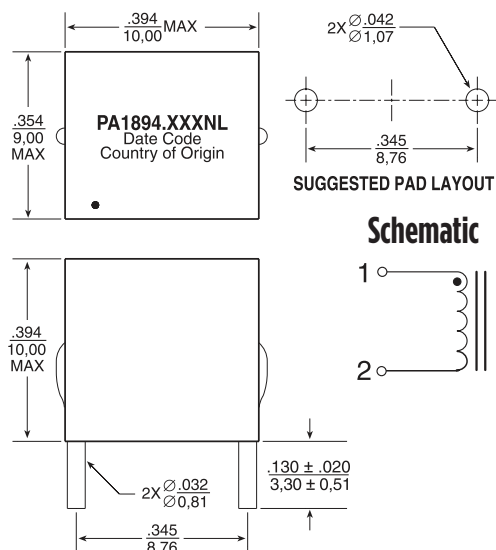
*Contact Pulse for availability

Mechanicals

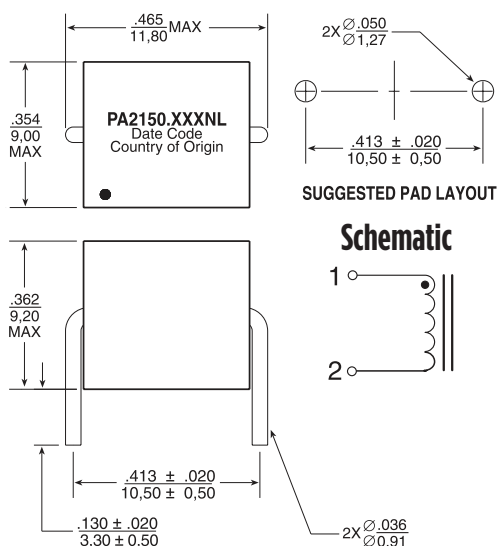
PA2080.XXXNL



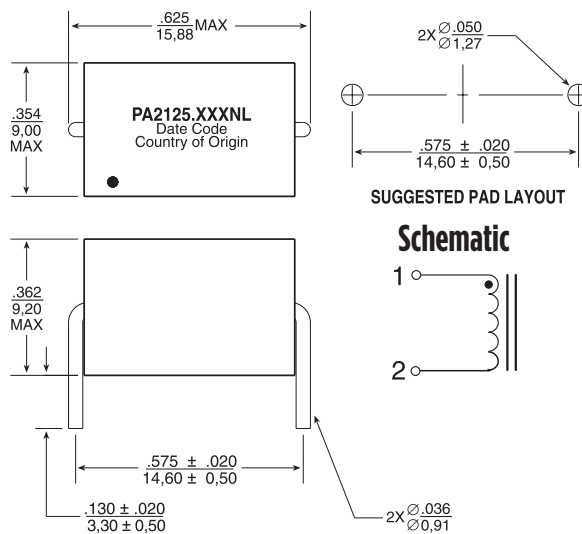
PA1894.XXXNL



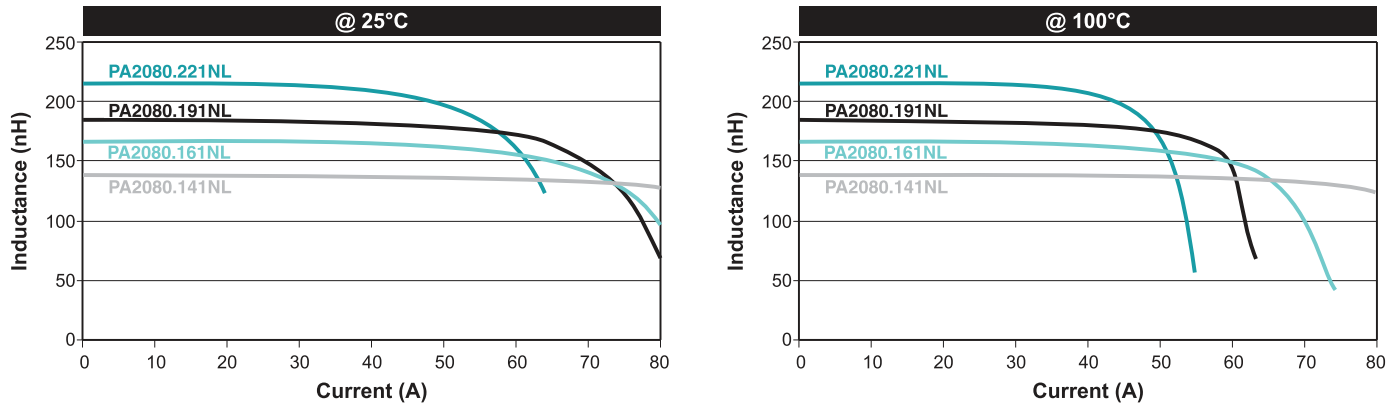
PA2150.XXXNL



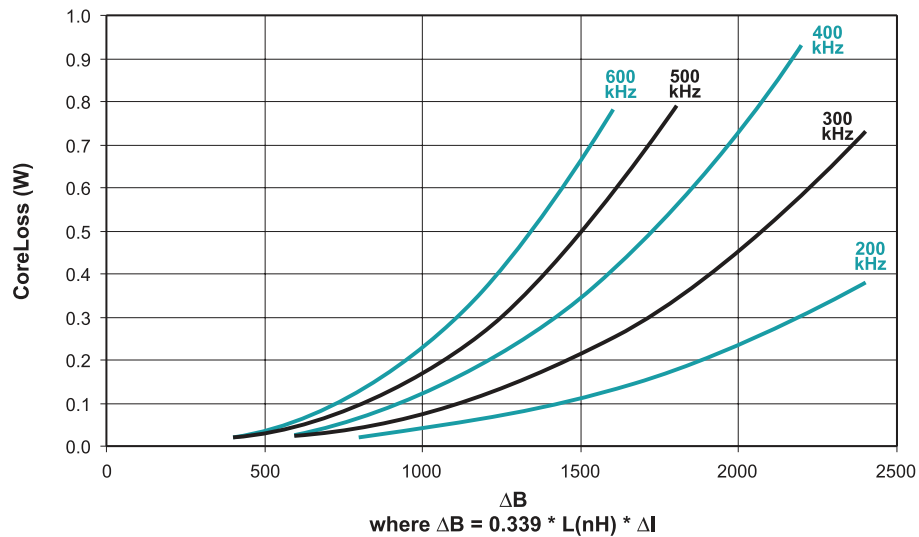
PA2125.XXXNL



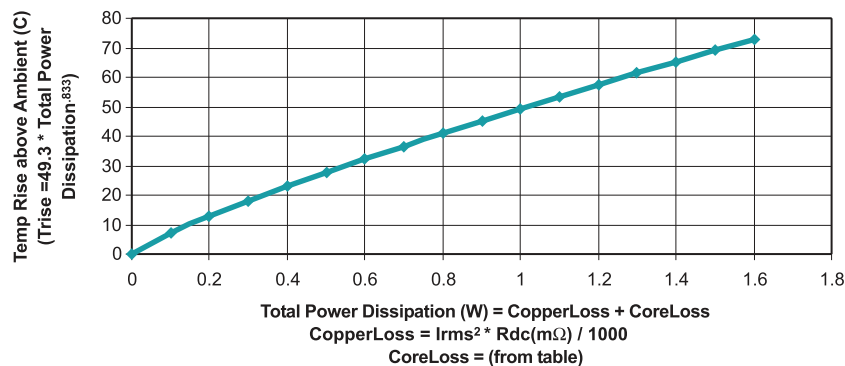
Typical Inductance vs DC Bias for PA2080.XXXNL Series



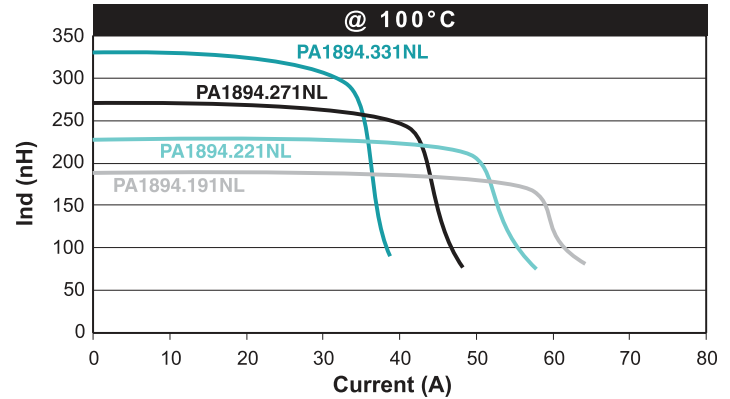
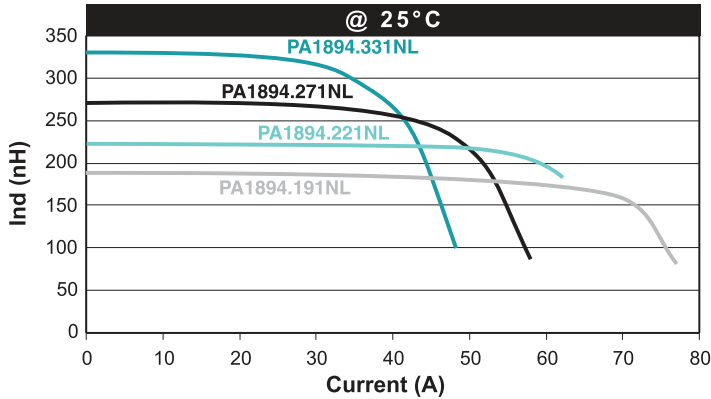
CoreLoss (W) for PA2080.XXXNL Series



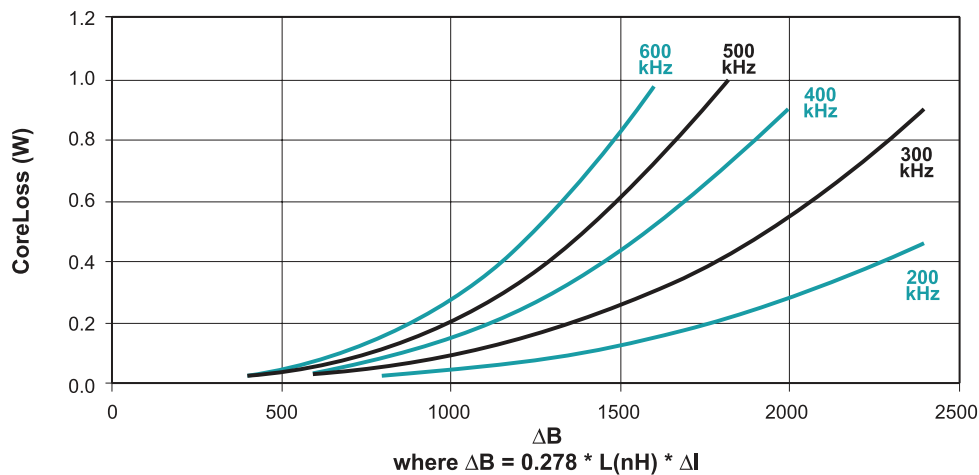
Temp Rise vs Power Dissipation for PA2080.XXXNL Series



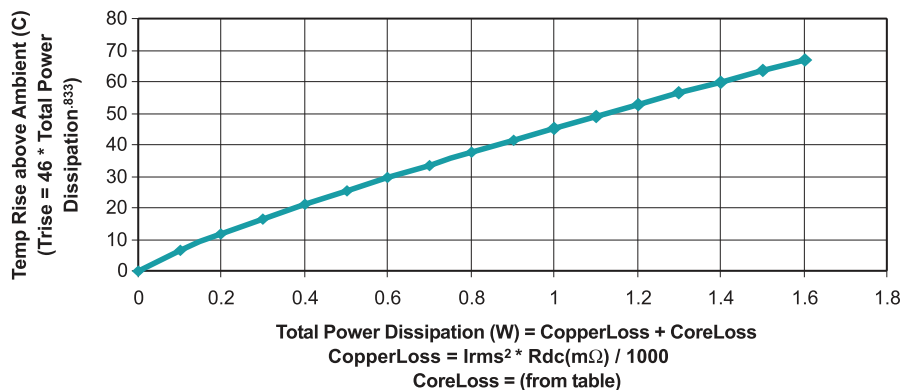
Lvsl for PA1894.XXXNL Series



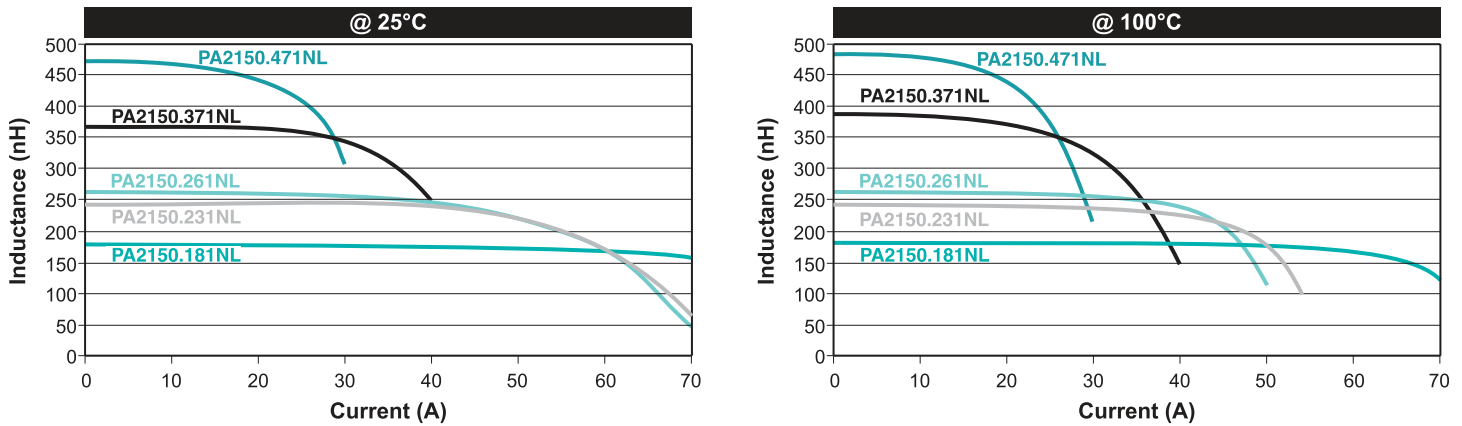
CoreLoss (W) for PA1894.XXXNL Series



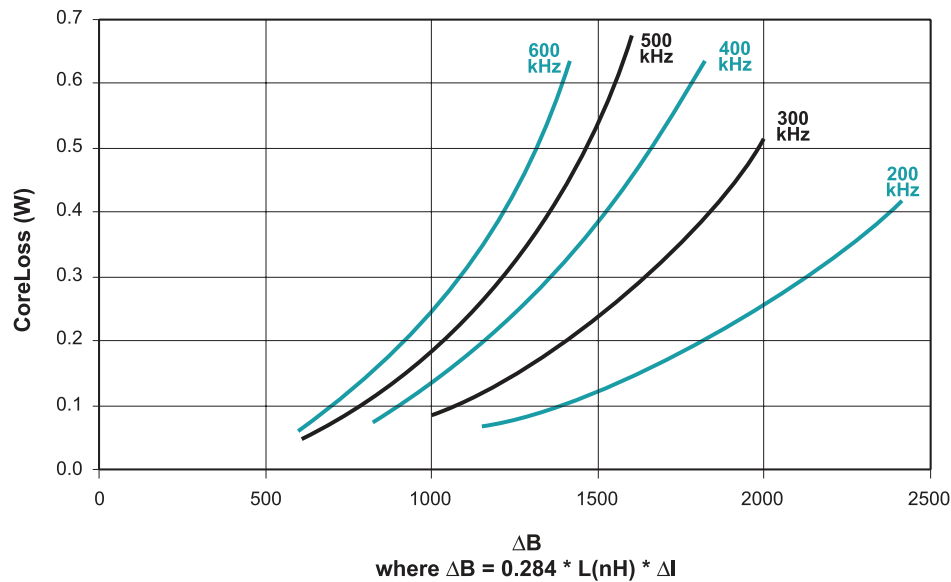
Temp Rise vs Power Dissipation for PA1894.XXXNL Series



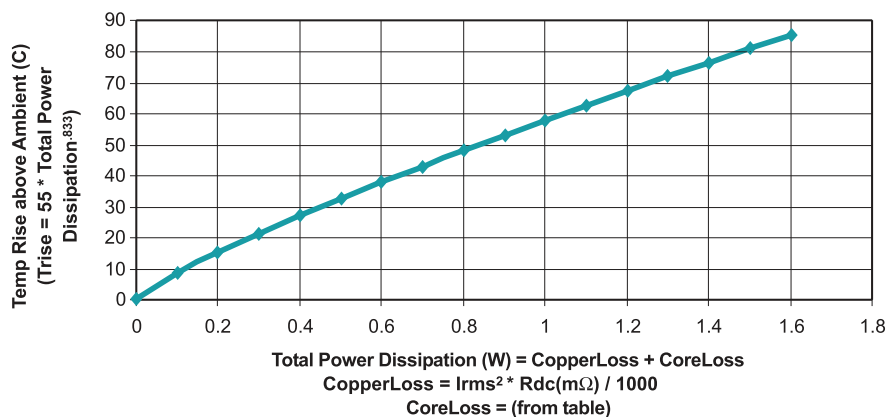
Typical Inductance vs DC Bias for PA2150.XXXNL Series



CoreLoss (W) for PA2150.XXXNL Series



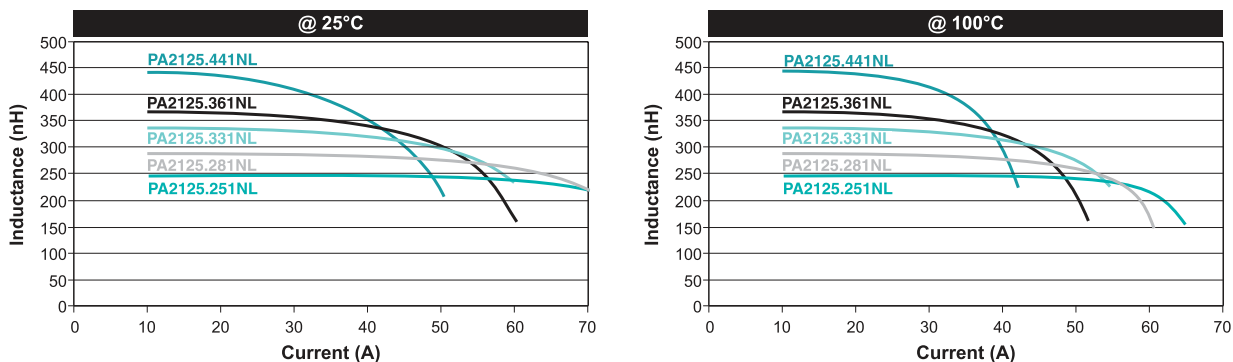
Temp Rise vs Power Dissipation for PA2150.XXXNL Series



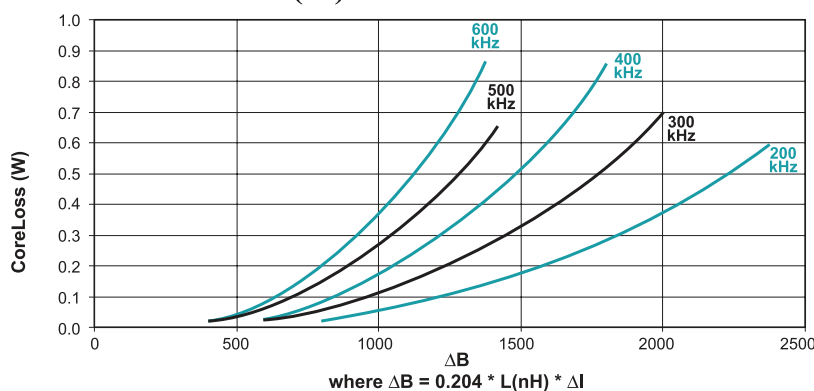
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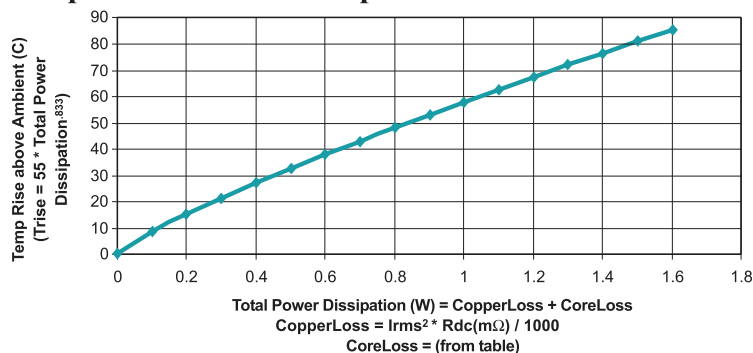
Typical Inductance vs DC Bias for PA2125.XXXNL Series



CoreLoss (W) for PA2125.XXXNL Series



Temp Rise vs Power Dissipation for PA2125.XXXNL Series



For More Information

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

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe
Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 78060
Fax: 49 7032 7806 135

Pulse China Headquarters
B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR 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
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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