# **THT Power Inductors**

For Class D and Digital Amplifier Applications





 Low cost, using gapped toroid technology
Designed to match Zetex IC ZXCD1000 (PG0035, PG0036 and PG0058) and ZXCW8100 (PG0058)
Robust with high performance

| Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C |                      |                       |                    |     |                            |   |        |         |   |
|--|----------------------|-----------------------|--------------------|-----|----------------------------|---|--------|---------|---|
|  | Inductance           | ,                     | <b>DCR</b><br>(mΩ) |     | Inductance                 | Saturation Current I <sub>SAT</sub> <sup>3</sup><br>(A) |        |         | Heating                                 |
| Part<br>Number   | @ Irated<br>(µH TYP) | <b>Irated²</b><br>(A) | TYP                | MAX | @ <b>0A</b> x<br>(µH ±10%) | @ -40°C   | @ 25°C | @ 120°C | <b>Current I</b> bc <sup>4</sup><br>(A) |
| <b>PG0035NL</b> (with base)  | 19.5                 | 3                     | 66                 | 93  | 20                         | 7.0   | 6.0    | 4.0     | 3                                       |
| PG0036NL   | 19.5                 | 3                     | 74                 | 93  | 20                         | 7.0   | 6.0    | 4.0     | 3                                       |
| PG0058NL   | 19.5                 | 8                     | 8.6                | 12  | 20                         | 8.5   | 8.0    | 7.0     | 11                                      |



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### **Notes from Tables**

- 1. Inductance at Irated is a typical inductance value measured when the inductor is subjected to the rated current.
- 2. The rated current listed is the lower of the saturation current @ 25  $^{\circ}\mathrm{C}$  or the heating current.
- 3. The saturation current, lsat, is the current at which the component inductance drops by 10% at the stated ambient temperatures (-40°C, 25°C, 120°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, loc, 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.
- PG0035NL and PG0036NL is used for the 25W-50W version of ZXCD1000 chipset while PG0058NL is used for the 100W version of ZXCD1000 and for the new digital audio amplifier chipset ZXCW8100.
- \* Contact Pulse for availability



#### PG0035/36 TYPICAL INDUCTANCE VS. DC BIAS At Different Ambient Temperature

#### PG0058 TYPICAL INDUCTANCE VS. DC BIAS At Different Ambient Temperature



## For More Information

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