THT POWER INDUCTORS

For Class D and Digital Amplifier Applications

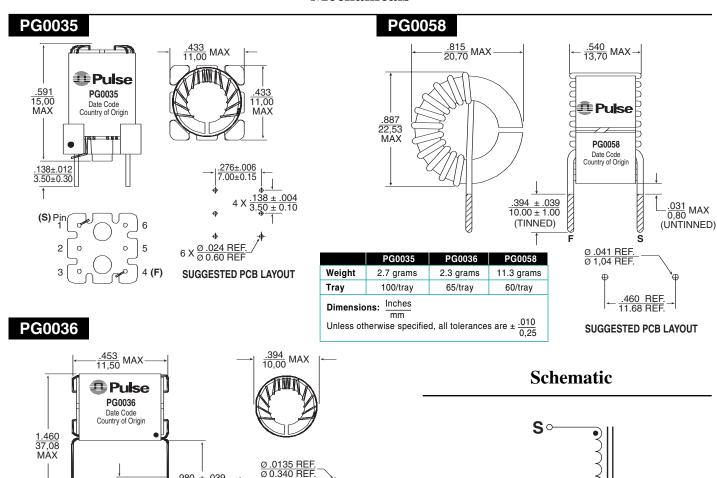




- Low cost, using gapped toroid technology
- Designed to match Zetex IC ZXCD1000 (PG0035, PG0036 and PG0058) and ZXCW8100 (PG0058)
- Robust with high performance

Electrical Specifications @ $25^{\circ}\mathrm{C}$ — Operating Temperature - $40^{\circ}\mathrm{C}$ to + $125^{\circ}\mathrm{C}$									
Part Number	Inductance @ Irated (µH TYP)	Irated ² (A)	DCR (mΩ)		Inductance @ 0A _{DC}	Saturation Current I _{SAT} ³ (A)			Heating Current I _{DC} ⁴
			TYP	MAX	(μH ±10%)	@ -40°C	@ 25°C	@ 120°C	(A)
PG0035 (with base)	19.5	3	66	93	20	7.0	6.0	4.0	3
PG0036	19.5	3	74	93	20	7.0	6.0	4.0	3
PG0058	19.5	8	8.6	12	20	8.5	8.0	7.0	11

Mechanicals



SUGGESTED PCB LAYOUT

<u>.980 ± .039</u> 25.00 ± 1.00

 $\frac{.787 \pm .039}{20.00 \pm 1.00}$ (TINNED)

PG0035 / PG0036 / PG0058

THT POWER INDUCTORS

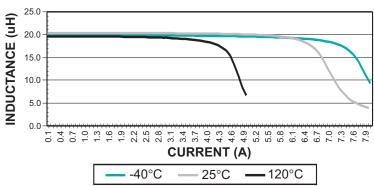
For Class D and Digital Amplifier Applications



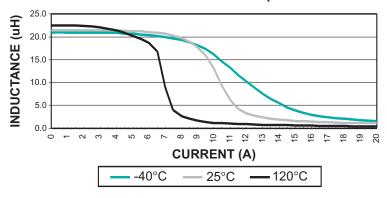
Notes from Table

- 1. Inductance at Irated is a typical inductance value measured when 4. The heating current ldc is the dc current which causes the the inductor is subjected to the rated current.
- 2. The rated current as listed is either the saturation current @ 25°C or the heating current depending on which value is lower.
- 3. The saturation current lsat is the current which causes the inductance to drop 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.
- temperature rise of the part to increase by approximately 40°C. This current is determined by mounting the component on a typical application PCB and applying the current to the device for 30 minutes.
- 5. PG0035 and PG0036 is used for the 25W~50W version of ZXCD1000 chipset while PG0058 is used for the 100W version of ZXCD1000 and for the new digital audio amplifier chipset ZXCW8100.

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



PG0058 TYPICAL INDUCTANCE VS. DC BIAS At Different Ambient Temperature



For More Information:

UNITED STATES (Worldwide)

San Diego, CA 92128 U.S.A.

TEL: 858 674 8100 FAX: 858 674 8262

UNITED KINGDOM (Northern Europe)

12220 World Trade Drive 1 & 2 Huxley Road The Surrey Research Park Guildford, Surrey GU2 5RE http://www.pulseeng.com United Kingdom

TEL: 44 1483 401700 FAX: 44 1483 401701

FRANCE (Southern Europe)

Zone Industrielle F-39270 Orgelet France

#07-01/02 TEL: 33 3 84 35 04 04

KA Centre Singapore 368324 TEL: 65 6287 8998 FAX: 33 3 84 25 46 41 FAX: 65 6280 0080

SINGAPORE

(Southern Asia)

TAIWAN, R.O.C. (Northern Asia)

150 Kampong Ampat 3F-4, No. 81, Sec. 1 HsinTai Wu Road Taiwan, R.O.C.

Hsi-Chih, Taipei Hsien Tel: 886 2 2698 0228 FAX: 886 2 2698 0948 FAX: 852 2776 1055

DISTRIBUTOR HONG KONG (China/Hong Kong)

9/F, Phase 2, Tai Sang Shatin Warehouse Centre 6 Wong Chuk Yeung Street Fotan, Shatin, Hong Kong TEL: 852 2788 6588

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.