Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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SMT POWER INDUCTORS
Toroid - Military/Aerospace POGO Series

Pulse ® A TECHNITROL COMPANY

- Ruggedized header with POGO pins for secure board mounting
- **Current Rating:** up to 8.3A$_{DC}$
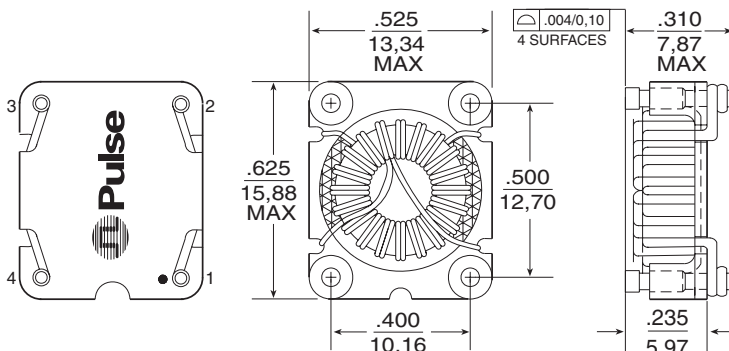- **Inductance Range:** 2.0µH to 336µH

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C

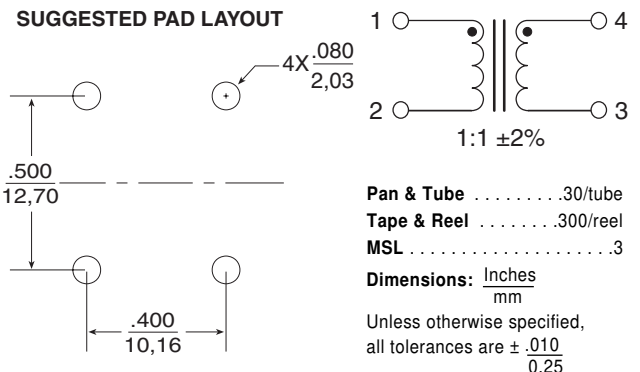| Part [9] Number	Inductance @ Irated (µH MIN)	Irated (A)	DCR (MAX) (mΩ)	ET (V-µsec)	Inductance @0A$_{DC}$ (µH ±10%)	100 Gauss ET$_{100}$ (V-µsec)	1 Amp DC H$_1$ (Orsted)	Connection
POGO 25								
PL8600	2.0	8.30	8.0	7.31	2.2	1.20	5.43	Parallel
PL8601	2.4	7.20	10.9	7.81	2.6	1.33	5.97	Parallel
PL8602	5.0	5.20	19.0	11.72	5.5	1.93	8.69	Parallel
PL8600	7.0	4.16	16.0	14.61	8.75	2.41	10.86	Series
PL8603	9.3	3.80	30	16.12	10.4	2.65	11.95	Parallel
PL8601	8.4	3.78	21.8	15.62	10.4	2.65	11.95	Series
PL8604	14.1	3.10	45.5	19.73	15.7	3.25	14.66	Parallel
PL8605	19.8	2.60	66.5	23.45	22.1	3.86	17.38	Parallel
PL8602	17.9	2.60	38.0	23.43	22.45	3.86	17.38	Series
PL8606	29.3	2.20	101	28.50	32.8	4.70	21.18	Parallel
PL8603	33.8	1.89	60	32.25	41.7	5.30	23.89	Series
PL8607	42.6	1.80	151	34.49	47.6	5.66	25.52	Parallel
PL8604	50.9	1.54	91	39.46	62.8	6.51	29.32	Series
PL8608	61.3	1.50	222	40.85	67.5	6.75	30.41	Parallel
PL8605	71.5	1.30	133	46.90	88.2	7.71	34.75	Series
PL8609	84.2	1.20	318	46.22	91.0	7.83	35.30	Parallel
PL8606	106.1	1.07	202	57.00	131.0	9.40	42.36	Series
PL8607	154.2	0.89	302	68.99	190.3	11.33	51.05	Series
PL8608	218.9	0.74	444	81.70	270.2	13.50	60.82	Series
PL8609	295.0	0.64	636	92.43	364.0	15.66	70.59	Series

NOTES:

1. Temperature rise is 50°C in typical buck or boost circuits at 250kHz and with the reference ET applied to the inductor.
2. Total loss in the inductor is 380mWatts for a 50°C temperature rise above ambient.
3. To estimate temperature rise in a given application, determine copper and core losses, divide by 380 and multiply by 50.
4. For the copper loss, calculate $I_{DC}^2 \times R_N$.
5. For core loss, using frequency (f) and operating flux density (B), calculate $6.11 \times 10^{-18} \times B^{2.7} \times f^{2.04}$.
6. For flux density (B), calculate ET (V-µsec) for the application, divide by ET$_{100}$ from the table, and multiply by 100.
7. Limit the DC bias (H) to 46 orsteds. Calculate H by multiplying H$_1$ from the table by I$_{DC}$ of the application.
8. The maximum DCR listed is approximately 17% over the nominal DCR.
9. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PL8600 becomes PL8600**T**). Pulse complies to industry standard tape and reel specification EIA481.

Mechanical

.525 / 13,34 MAX
☐ .004/0,10 4 SURFACES
.310 / 7,87 MAX
.625 / 15,88 MAX
.500 / 12,70
.400 / 10,16
.235 / 5,97

Schematic

SUGGESTED PAD LAYOUT

4X .080 / 2,03
.500 / 12,70
.400 / 10,16

1 ○——○ 4
2 ○——○ 3
1:1 ±2%

Pan & Tube 30/tube
Tape & Reel 300/reel
MSL .3
Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified, all tolerances are ± $\frac{.010}{0,25}$

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