

SMT Boost Inductor/DC Choke

- Designed for Military / Aerospace applications
- Can be used in boost topologies or DC ripple filtering
- Bigfoot Series

Electrical Specifications @ 25°C - Operating Temperature -55°C to +155°C

Part Number	Inductance @ Irated (μH MIN) (Note 3)	Irated (A dc) (Note 3)	Inductance @ 0A _{DC} (μH ±10%) (Note 3)	DCR per Winding (mΩ MAX)	Turns Ratio		
PL1746	50	5	80	60	1:1		

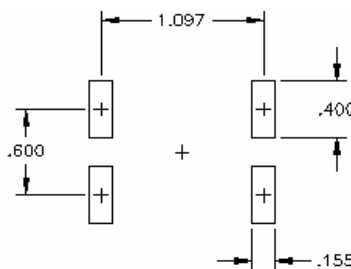
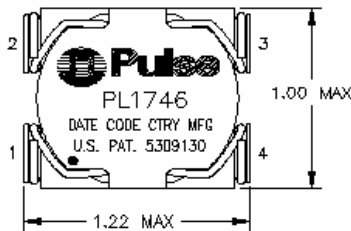
- 1) Reference values are for an inductor with ambient temperature adjusted for a 55°C temperature rise.
- 2) Cores do not saturate abruptly.
- 3) Parallel connection value. For series connection, multiply inductance by 4 and divide current rating by 2.
- 4) Core Watts Loss, where I is in amps and frequency is in kHz can be approximated by the following equation:

$$2.033 \times 10^{-4} \times (\Delta I)^{2.24} \times \text{freq}^{1.41}$$

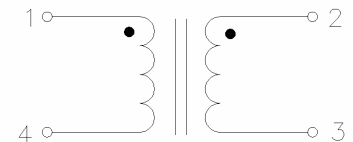
Mechanical

Schematic

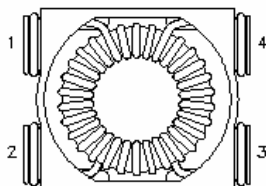
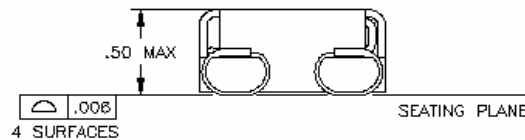
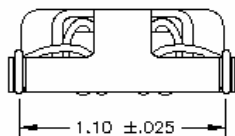
PL1746



SUGGESTED PCB LAYOUT



SCHEMATIC



(TURNS SHOWN ARE NOT EXACT)