# SMT POWER INDUCTORS

Shielded Drum Core - PL95XX Series





**Height:** 0.122 inches (3.1mm) Max

**Footprint:** 0.256 inches x 0.256 inches (6.5mm x 6.5mm) Max

👝 Inductance Range: 2.15μH to 85.39μH

• Current Rating: up to 2.60A

**MSL:** 1

Max Reflow Temp: 235°C

Storage Temp: -55°C to +125°C

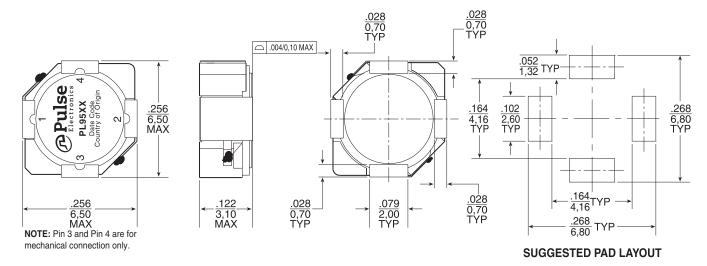
| Electrical Specifications @ 25°C — Operating Temperature – 55°C to +130°C |                       |                     |                   |      |                     |                                    |                                 |  |  |  |
|---|-----------------------|---------------------|-------------------|------|---------------------|------------------------------------|---------------------------------|--|--|--|
| Part  | Inductance<br>@Irated | Irated <sup>2</sup> | DCR (m $\Omega$ ) |      | Inductance<br>@OApc | Saturation <sup>3</sup><br>Current | Heating <sup>4</sup><br>Current |  |  |  |
| Numbers   | (µĤ TYP)              | (A)                 | TYP               | MAX  | (µH)                | (A) @25°C                          | (A)                             |  |  |  |
| PL9501  | 2.15                  | 2.60                | 15.3              | 17.6 | 2.5*                | 2.60                               | 3.45                            |  |  |  |
| PL9502  | 2.58                  | 2.30                | 16.6              | 20.3 | 3.3*                | 2.30                               | 3.31                            |  |  |  |
| PL9503  | 3.43                  | 2.10                | 22.5              | 27.0 | 4.0*                | 2.10                               | 2.84                            |  |  |  |
| PL9504  | 4.63                  | 1.85                | 24.9              | 31.1 | 5.0*                | 1.85                               | 2.70                            |  |  |  |
| PL9505  | 5.22                  | 1.70                | 32.3              | 41.9 | 6.0*                | 1.70                               | 2.37                            |  |  |  |
| PL9506  | 6.57                  | 1.50                | 37.9              | 49.9 | 8.0*                | 1.50                               | 2.19                            |  |  |  |
| PL9507  | 8.65                  | 1.30                | 45                | 54   | 10                  | 1.30                               | 2.01                            |  |  |  |
| PL9508  | 9.78                  | 1.20                | 59                | 72   | 12                  | 1.20                               | 1.76                            |  |  |  |
| PL9509  | 12.13                 | 1.10                | 66                | 82   | 15                  | 1.10                               | 1.65                            |  |  |  |
| PL9510  | 15.23                 | 1.05                | 88                | 102  | 18                  | 1.05                               | 1.44                            |  |  |  |
| PL9511  | 18.70                 | 0.95                | 103               | 119  | 22                  | 0.95                               | 1.33                            |  |  |  |
| PL9512  | 21.54                 | 0.85                | 114               | 146  | 27                  | 0.85                               | 1.26                            |  |  |  |
| PL9513  | 27.71                 | 0.76                | 155               | 183  | 33                  | 0.76                               | 1.08                            |  |  |  |
| PL9514  | 33.57                 | 0.68                | 193               | 210  | 39                  | 0.68                               | 0.97                            |  |  |  |
| PL9515  | 40.15                 | 0.60                | 196               | 230  | 47                  | 0.60                               | 0.96                            |  |  |  |
| PL9516  | 49.68                 | 0.55                | 248               | 305  | 56                  | 0.55                               | 0.86                            |  |  |  |
| PL9517  | 60.66                 | 0.48                | 278               | 351  | 68                  | 0.48                               | 0.81                            |  |  |  |
| PL9518  | 74.71                 | 0.45                | 323               | 419  | 82                  | 0.45                               | 0.75                            |  |  |  |
| PL9519  | 85.39                 | 0.40                | 417               | 520  | 100                 | 0.40                               | 0.66                            |  |  |  |

<sup>\*</sup>Inductance at OADC tolerance on indicated part numbers is ±30%; tolerance is ±20% on all other parts. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL9501 becomes PL9501**T**).

\*\*NOTES FROM TABLE: (See back page)

## **Mechanical**

## PL95XX



pulseelectronics.com M124.E (3/13)

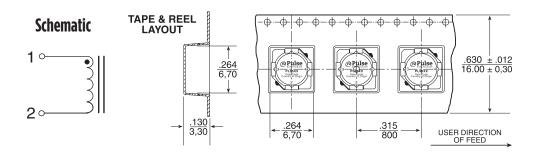
## **SMT POWER INDUCTORS**

Shielded Drum Core - PL95XX Series

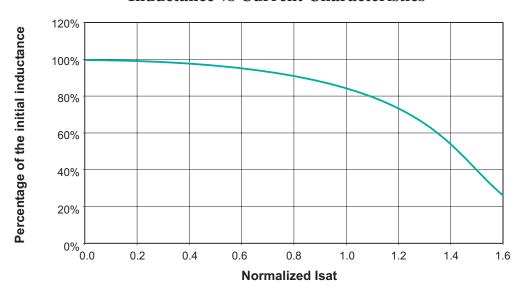


#### **Notes from Tables**

- Temperature of the component (ambient plus temperature rise) must be within specified operating temperature range.
- The rated current as listed is either the saturation current or the heating current depending on which value is lower.
- 3. The saturation current is the current which causes the inductance to drop to 75% of its initial inductance at zero bias. This current is determined by placing the component at room ambient (25°C), and applying a short duration pulse current (to eliminate self-heating effects) to the component.
- 4. The heating current is the DC current, which causes the temperature of the part to increase by approximately 40°C. This current is determined by extending the terminals of the component with 30mm length 28 gauge buss wires and applying the current to the device for 30 minutes. The temperature is measured by placing the thermocouple between the winding and the shield.
- 5. 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. In order to determine the approximate total loss (or temperature rise) for a given application, both copper losses and core losses should be taken into account.



## **Inductance vs Current Characteristics**



## For More Information

| Pulse North America<br>Headquarters<br>Two Pearl Buck Court<br>Bristol, PA 19007<br>U.S.A. | Pulse Europe Einsteinstrasse 1 D-71083 Herrenberg Germany Tel: 49 7032 7806 0 | Pulse China Headquarters<br>B402, Shenzhen Academy of<br>Aerospace Technology Bldg.<br>10th Kejinan Road<br>High-Tech Zone<br>Nanshan District<br>Shenzen, PR China 518057<br>Tel: 86 755 33966678 | Pulse North China Room 2704/2705 Super Ocean Finance Ctr. 2067 Yan An Road West Shanghai 200336 China Tel: 86 21 62787060 | Pulse South Asia 135 Joo Seng Road #03-02 PM Industrial Bldg. Singapore 368363 Tel: 65 6287 8998 | Pulse North Asia<br>3F, No. 198<br>Zhongyuan Road<br>Zhongli City<br>Taoyuan County 320<br>Taiwan R. O. C.<br>Tel: 886 3 4356768<br>Fax: 886 3 4356823 (Pulse) |
|--|---|--|---|--|--|
| Fax: 215 781 6403  | Fax: 49 7032 7806 135   | Fax: 86 755 33966700   | Fax: 86 2162786973  | Fax: 65 6287 8998  | Fax: 886 3 4356820 (FRE)   |

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. © Copyright, 2011. Pulse Electronics, Inc. All rights reserved.

2 pulseelectronics.com M124.E (3/13)

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for pulse manufacturer:

Other Similar products are found below:

5994 5993 PL1746 20379 PL1445T PH9085.011NL P2004NLT PE-0603CD060KTT P0182T PE-0805CD030KTT PE-53363NLT

23Z106SM-T HX5400NL JXD0-4005NL ST6200QNL T3001NL HX2019 HX1148NL PE-65968NL PE-65535NL T1142NLT H6062NL

H7019FNL PA2743NL P0438T P0584 P0752.474T P1167.154T STQN1553-45 JG0-0098NL JG0-0025NL J20-0014NL W1911 JX20
0114NL HFB075100A HX6101NL PA4345.102NLT RO2408NMD P0469NL P0841SNLT PB2134NL ST2-12B42 PE-0805CM331JTT

53119 J3026G01DNL 100B-1001XNL P0849SNL W3012-K T1124NL H5004NL