# imall

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### SMT POWER INDUCTORS

Shielded Drum Core - PL95XX Series

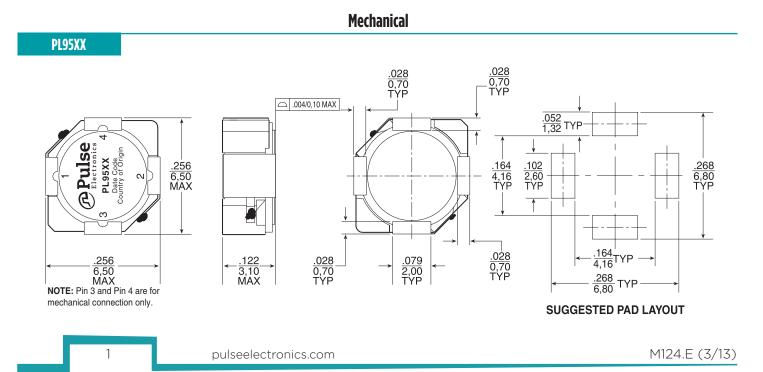




- Height: 0.122 inches (3.1mm) Max
- **Footprint:** 0.256 inches x 0.256 inches (6.5mm x 6.5mm) Max
- Inductance Range: 2.15μH to 85.39μH
- Current Rating: up to 2.60A
- **D** MSL: 1
- Max Reflow Temp: 235°C
- **Storage Temp:** -55°C to +125°C

Electrical Specifications @ 25°C — Operating Temperature - 55°C to +130°C							
Part Numbers	Inductance @Irated	Irated <sup>2</sup> (A)	DCR (mQ)		Inductance @OApc	Saturation <sup>3</sup> Current	Heating <sup>4</sup> Current
	(µH TYP)		ТҮР	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

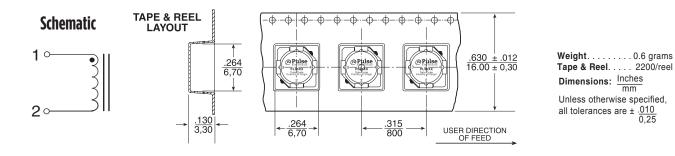
\*Inductance at OAbc tolerance on indicated part numbers is  $\pm 30\%$ ; tolerance is  $\pm 20\%$  on all other parts. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL9501 becomes PL9501**T**). **NOTES FROM TABLE:** (See back page)



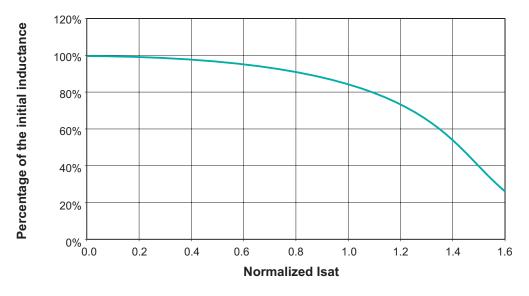
#### SMT POWER INDUCTORS Shielded Drum Core - PL95XX Series

#### Notes from Tables

- Temperature of the component (ambient plus temperature rise) must be within specified operating 1 temperature range.
- 2. 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.
- The heating current is the DC current, which causes the temperature of the part to increase by 4 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**



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