



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!



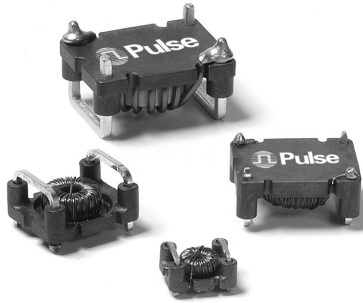
## Contact us





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-  Ruggedized header with SLED rails for secure board mounting
-  Four package sizes
-  Current Rating: up to 14.3A<sub>DC</sub>
-  Frequency Range: up to 1MHz

### Electrical Specifications @ 25°C — Operating Temperature -55°C to +130°C

Pulse <sup>4</sup> Part Number	Inductance @ I <sub>rated</sub> (μH)	I <sub>rated</sub> (A)	DCR (mΩ)		Inductance @ 0A <sub>DC</sub> (μH)	Reference ET (Volt-μsec)	Flux Density Factor (K1)	Core Loss Factor (K2)	Temp. Rise Factor (K3)
			TYP	MAX					
<b>SLED 20</b>									
PL8100	1.01	3.40	9.35	11	1.1	0.53	5.43	3.29E-11	323.9
PL8101	6.2	1.40	59.5	70	7	1.33	2.17	3.29E-11	323.9
PL8102	17.6	1.00	106.25	125	22.7	2.4	1.21	3.29E-11	323.9
<b>SLED 30</b>									
PL8110	3.8	4.80	14.705	17.3	5.2	1.76	1.28	1.39E-10	148.0
PL8111	9.4	2.80	36.89	43.4	12.3	2.7	0.83	1.39E-10	148.0
PL8112	29.7	1.40	141.1	166	35.3	4.6	0.49	1.39E-10	148.0
PL8113	114	0.94	323	380	167	10	0.23	1.39E-10	148.0
<b>SLED 40</b>									
PL8120	2.5	8.00	7.055	8.3	3.8	1.77	1.30	1.87E-10	114.2
PL8121	5.1	5.40	15.045	17.7	7.5	2.51	0.92	1.87E-10	114.2
PL8122	16.2	2.70	63	72	21.9	4.29	0.54	1.87E-10	114.2
PL8123	58.1	1.30	246.5	290	73	7.83	0.29	1.87E-10	114.2
PL8124	192	0.90	476	560	292	15.7	0.15	1.87E-10	114.2
PL8125	383	0.72	732.7	862	672	23.5	0.10	1.87E-10	114.2
PL8130	4.9	7.80	10.54	12.4	7.9	3.04	0.67	3.35E-10	85.7
PL8131	9	5.50	25	28	14	4.06	0.51	3.35E-10	85.7
PL8132	29.1	2.70	85	100	40.5	6.9	0.30	3.35E-10	85.7
PL8133	645	0.74	1062.5	1250	1134	36.5	0.06	3.35E-10	85.7
PL8150	0.81	14.30	2.125	2.5	1.25	1.035	2.23	1.87E-10	114.2
PL8151	1.32	11.50	3.4	4.0	2.1	1.33	1.74	1.87E-10	114.2
<b>SLED 50</b>									
PL8140	9.3	7.20	15.895	18.7	16	4.92	0.41	4.52E-10	67.9
PL8141	16.1	5.10	27.2	32.0	25.9	6.27	0.32	4.52E-10	67.9
PL8142	50	2.60	113.05	133	72.9	10.5	0.19	4.52E-10	67.9
PL8143	1070	0.71	1445	1700	1950	54.4	0.04	4.52E-10	67.9
PL8160	1.68	13.90	3.06	3.6	2.8	1.83	1.12	3.35E-10	85.7
PL8161	2.5	11.40	4.59	5.4	4.2	2.23	0.92	3.35E-10	85.7
PL8170	3.5	12.40	5.61	6.6	6.5	3.1	0.64	4.52E-10	67.9
PL8171	4.7	10.40	7.055	8.3	8.4	3.58	0.56	4.52E-10	67.9
<b>SLED 60</b>									
PL8180	5.2	15.40	5.27	6.2	10.5	5.21	0.35	9.58E-10	44.6
PL8181	9.4	10.90	10.5	12.3	17.6	6.84	0.27	9.58E-10	44.6

#### NOTES:

- Reference values are for an inductor with a 55°C temperature rise. The core loss is 10% of the copper loss at the ET listed and 500kHz.
- Core does not saturate abruptly. The ET and DC current are limited by the desired inductance and temperature rise.
- 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 losses (or temperature rise) for a given application, both copper and core losses should be taken into account.

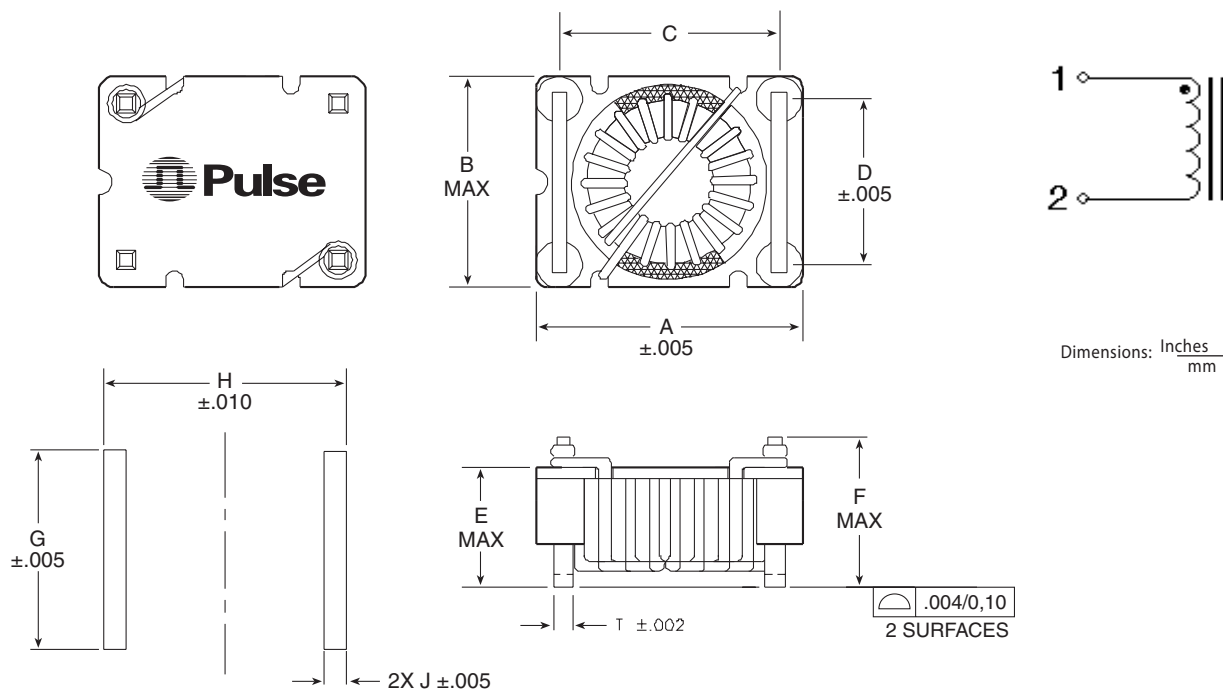
#### Estimated Temperature Rise:

$$\begin{aligned} \text{Trise} &= K3 * (\text{Coreloss}(W) + \text{Copperloss}(W))^{0.33} \text{ (C)} \\ \text{CopperLoss} &= \text{Irms}^2 * \text{DCR\_Typical} \text{ (m}\Omega\text{)} / 1000 \\ \text{CoreLoss} &= K2 * (\text{Freq\_kHz})^{1.26} * (\Delta B)^{2.11} \\ \Delta B &= K1 * \text{Volt-}\mu\text{sec} * 100 \end{aligned}$$

- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL8100 becomes PL8100T). Pulse complies to industry standard tape and reel specification EIA481.

### Mechanical

### Schematic



### SUGGESTED PAD LAYOUT

PKG	A	B	C	D	E	F	G	H	J	T	Weight (grams MAX)	Tube Pan (QTY)	Tape Pan (QTY)
SLED 20	$\frac{.400}{10,16}$	$\frac{.345}{8,76}$	$\frac{.300}{7,62}$	$\frac{.245}{6,22}$	$\frac{.200}{5,08}$	$\frac{.250}{6,35}$	$\frac{.310}{7,87}$	$\frac{.345}{8,76}$	$\frac{.045}{1,14}$	$\frac{.025}{0,64}$	0.66	30	800
SLED 30	$\frac{.625}{15,88}$	$\frac{.525}{13,34}$	$\frac{.500}{9,91}$	$\frac{.400}{10,16}$	$\frac{.325}{8,26}$	$\frac{.400}{10,16}$	$\frac{.460}{11,68}$	$\frac{.560}{14,22}$	$\frac{.045}{1,14}$	$\frac{.040}{1,02}$	2.53	35	200
SLED 40	$\frac{.725}{18,42}$	$\frac{.575}{14,61}$	$\frac{.600}{15,24}$	$\frac{.450}{11,43}$	$\frac{.335}{8,51}$	$\frac{.410}{10,41}$	$\frac{.540}{13,72}$	$\frac{.660}{16,76}$	$\frac{.060}{1,52}$	$\frac{.040}{1,02}$	4.62	30	200
SLED 50	$\frac{.900}{22,86}$	$\frac{.690}{17,53}$	$\frac{.730}{18,54}$	$\frac{.520}{13,21}$	$\frac{.415}{10,54}$	$\frac{.520}{13,21}$	$\frac{.640}{16,26}$	$\frac{.810}{20,57}$	$\frac{.080}{2,03}$	$\frac{.060}{1,52}$	9.02	30	150
SLED 60	$\frac{1.275}{32,39}$	$\frac{1.065}{27,05}$	$\frac{1.100}{27,94}$	$\frac{.890}{22,61}$	$\frac{.405}{10,29}$	$\frac{.510}{12,95}$	$\frac{.985}{25,02}$	$\frac{1.180}{29,97}$	$\frac{.080}{2,03}$	$\frac{.060}{1,52}$	15.00	15	100