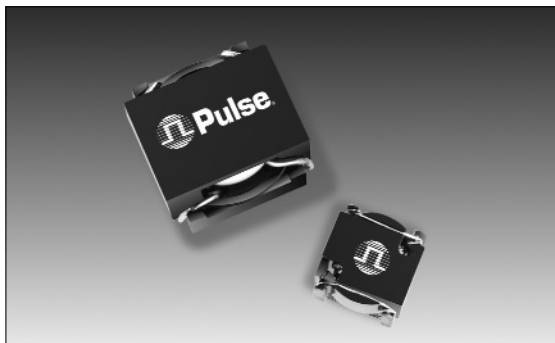






# SURFACE MOUNT INDUCTORS SELF-LEADED



## Electrical Information



-  Materials meet UL 94V-0 rating
-  Fits in half inch high boards for use in laptop and notebook computers
-  Frequency range of up to 1 MHz
-  Patented, low profile, self-leaded design

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

REFERENCE VALUES <sup>1</sup>				CONTROL VALUES			CALCULATION DATA		
Pulse Part Number	I <sub>DC</sub> <sup>2</sup> (Amps)	L with DC L <sub>DC</sub> (μH)	ET	Size Code	L w/o DC L <sub>o</sub> (μH ± 20%)	DCR R <sub>DC</sub> (mΩ MAX)	100 Gauss ET <sub>100</sub> (V-μSec)	1 Amp DC H <sub>i</sub> (Orsted)	DCR R <sub>N</sub> (mΩ NOM)
PE-53600	1.40	6.20	1.33	LCI-20	7.0	70.0	0.94	21.9	60.3
PE-53601	1.00	17.6	2.40	LCI-20	22.7	125	1.68	39.3	109
PE-53602	1.40	29.7	4.60	LCI-30	35.3	166	4.12	23.2	141
PE-53604	1.30	58.1	7.83	LCI-37	73.0	290	7.09	28.8	233
PE-53606	0.94	114	10.0	LCI-30	167	380	8.97	50.5	330
PE-53608	0.90	192	15.7	LCI-37	292	560	14.2	57.7	472
PE-53611	0.72	383	23.5	LCI-37	672	862	21.3	86.5	750
PE-53613	0.74	645	36.5	LCI-44	1134	1250	37.2	84.4	1040
PE-53614	0.71	1070	54.4	LCI-50	1950	1700	56.9	95.7	1480
PE-53630	3.4	1.01	0.532	LCI-20	1.10	11.0	0.37	8.74	12.5
PE-53631	2.8	9.4	2.70	LCI-30	12.3	43.4	2.42	13.7	37.8
PE-53632	2.7	16.2	4.29	LCI-37	21.9	63.0	3.88	15.8	54.7
PE-53633	2.7	29.1	6.90	LCI-44	40.5	85.0	7.02	15.9	75.8
PE-53634	2.6	50.0	10.5	LCI-50	72.9	133	11.0	18.5	115
PE-53650	4.8	3.8	1.76	LCI-30	5.20	17.3	1.58	8.87	14.8
PE-53651	5.4	5.1	2.51	LCI-37	7.5	17.7	2.27	9.25	14.3
PE-53652	5.5	9.0	4.06	LCI-44	14.0	22.3	4.13	9.38	19.3
PE-53653	5.1	16.1	6.27	LCI-50	25.9	32.0	6.55	11.0	30.3
PE-53661	8.0	2.5	1.77	LCI-37	3.80	8.3	1.61	6.53	7.20
PE-53662	7.8	4.9	3.04	LCI-44	7.9	12.4	3.10	7.03	10.5
PE-53663	7.2	9.3	4.92	LCI-50	16.0	18.7	5.15	8.67	16.3
PE-53680	11.5	1.32	1.33	HCI-37	2.10	4.0	1.20	4.90	3.39
PE-53681	11.4	2.5	2.23	HCI-44	4.20	5.4	2.27	5.16	4.64
PE-53682	10.4	4.7	3.58	HCI-50	8.4	8.3	3.75	6.30	7.18
PE-53683	10.9	9.4	6.84	HCI-68	17.6	12.3	7.93	6.24	10.7
PE-53690	14.3	0.81	1.035	HCI-37	1.25	2.5	0.94	381	2.16
PE-53691	13.9	1.68	1.83	HCI-44*	2.80	3.6	1.86	4.22	3.16
PE-53692	12.4	3.5	3.13	HCI-50*	6.5	6.6	3.28	5.52	5.75
PE-53700	15.4	5.2	5.21	HCI-68*	10.5	6.2	6.04	4.75	5.30

#### NOTES:

1. 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 500 KHz.
2. Core does not saturate abruptly. The ET and DC current are limited by the desired inductance and temperature rise.
3. The temperature rise is directly proportional to the total watts loss (I<sup>2</sup>R plus core loss). The core loss (mW/cc) equals  $9.07 \times 10^{-10} f^{1.26} B^{2.11}$ . B is the operating flux density (Gauss) due to ripple voltage and f is the operating frequency (Hertz) of the ripple current.
4. Optional 13" Tape & Reel packaging can be ordered by adding a "T" suffix to the part number, (i.e. PE-53600T).

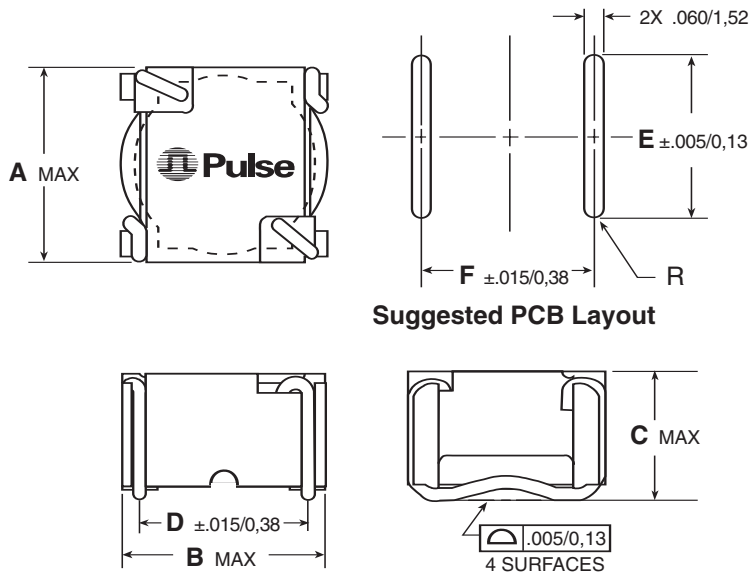
# SURFACE MOUNT INDUCTORS SELF-LEADED



## Mechanical Information

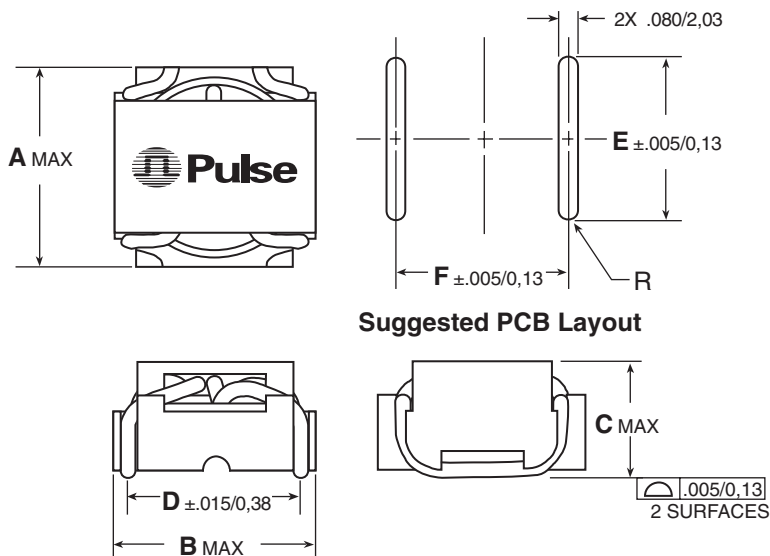
### Mechanicals

#### Low Current Inductors (LCI)



PKG	A	B	C	D	E	F
LCI-20	$\frac{.340}{8,64}$	$\frac{.340}{8,64}$	$\frac{.270}{6,86}$	$\frac{.260}{6,60}$	$\frac{.300}{7,62}$	$\frac{.270}{6,86}$
LCI-30	$\frac{.435}{11,05}$	$\frac{.440}{11,18}$	$\frac{.360}{9,14}$	$\frac{.350}{8,89}$	$\frac{.400}{10,16}$	$\frac{.360}{9,14}$
LCI-37	$\frac{.560}{14,22}$	$\frac{.565}{14,35}$	$\frac{.360}{9,14}$	$\frac{.450}{11,43}$	$\frac{.520}{13,21}$	$\frac{.460}{11,68}$
LCI-44	$\frac{.590}{14,99}$	$\frac{.615}{15,62}$	$\frac{.390}{9,91}$	$\frac{.500}{12,70}$	$\frac{.550}{13,97}$	$\frac{.500}{12,70}$
LCI-50	$\frac{.670}{17,02}$	$\frac{.700}{17,78}$	$\frac{.390}{9,91}$	$\frac{.580}{14,73}$	$\frac{.620}{15,75}$	$\frac{.590}{14,99}$

#### High Current Inductors (HCI)



PKG	A	B	C	D	E	F
HCI-37	$\frac{.615}{15,62}$	$\frac{.600}{15,24}$	$\frac{.370}{9,40}$	$\frac{.500}{12,70}$	$\frac{.440}{11,18}$	$\frac{.500}{12,70}$
HCI-44	$\frac{.665}{16,89}$	$\frac{.665}{16,89}$	$\frac{.390^*}{9,91}$	$\frac{.560}{14,22}$	$\frac{.490}{12,45}$	$\frac{.570}{14,48}$
HCI-50	$\frac{.740}{18,80}$	$\frac{.740}{18,80}$	$\frac{.390^*}{9,91}$	$\frac{.630}{16,00}$	$\frac{.560}{14,22}$	$\frac{.640}{16,26}$
HCI-68	$\frac{.940}{23,88}$	$\frac{.940}{23,88}$	$\frac{.390^*}{9,91}$	$\frac{.820}{20,83}$	$\frac{.700}{17,78}$	$\frac{.830}{21,08}$

\* Dimension "C" is .400/10,16 for the marked models because of heavier wire gage.

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$