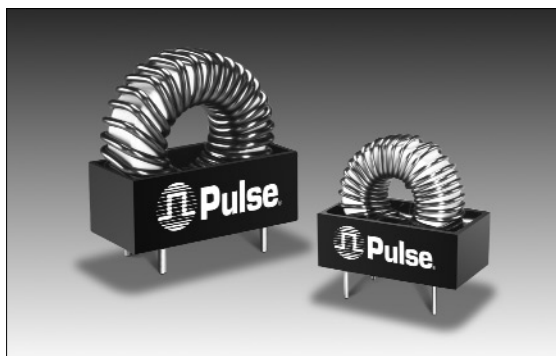


# TOROIDAL INDUCTORS HIGH CURRENT



- Cost-effective designs
- Semi-encapsulated construction
- Maximum operation temperature of 130°C (Ambient + Rise)
- A 2:1 inductance swing from zero to maximum current

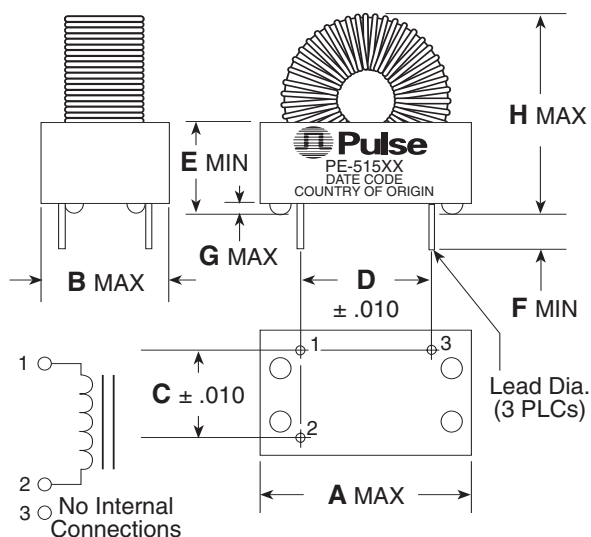
## Electrical Specifications @ 25°C

Part Number	REFERENCE OPERATING VALUES					DESIGN CONTROL VALUES				
	Inductance Typical (μH) <sup>2</sup>	I <sub>DC</sub> (AMPS)	ET <sub>OP</sub> <sup>1</sup> (V-μSec)		Energy Storage (μJ MIN) <sup>3</sup>	Inductance No DC (μH) (±20%)	50 kHz Test mV No DC <sub>5</sub>	DCR (Ω MAX)	Size Code	Lead Diameter (in ±.003)
			20 kHz	40 kHz						
PE-51506	17.0	17.0	190	130	2460	40.0	140	0.0065	3	0.081
PE-51507	32.0	16.0	290	200	4100	70.7	270	0.0092	4	0.081
PE-51508	60.0	16.0	390	270	7700	120.0	470	0.012	5	0.081
PE-51509	14.0	10.0	135	95	700	28.5	73	0.009	1	0.057
PE-51510	23.0	11.0	170	120	1400	43.5	130	0.012	2	0.057
PE-51511	43.0	10.0	280	195	2150	85.5	210	0.018	3	0.057
PE-51512	90.0	10.0	430	300	4500	158.0	420	0.028	4	0.057
PE-51513	144.0	10.0	570	400	7200	262.0	700	0.032	5	0.057
PE-51514	32.0	6.6	200	140	700	60.5	110	0.025	1	0.040
PE-51515	52.0	7.0	230	160	1275	92.0	190	0.032	2	0.040
PE-51516	98.0	6.0	400	280	1765	188.0	310	0.048	3	0.040
PE-51517	175.0	6.0	620	425	3150	315.0	560	0.068	4	0.040
PE-51518	335.0	6.0	840	580	6030	571.0	1000	0.095	5	0.040
PE-51520	400	3.6	600	420	2700	688.0	640	0.130	3	0.036

### NOTES:

- To prevent excessive temperature rise, limit ET<sub>OP</sub> to the rated ET<sub>OP</sub> specified. This is not a saturation limit. Temperature rise of inductors is 40°C MAX at MAX current and rated ET<sub>OP</sub>.
- A 2:1 nominal inductance swing from no I<sub>DC</sub> to operating I<sub>DC</sub> gives improved protection against current discontinuities at light loading. Inductance increases with greater ET<sub>OP</sub>. Reference values occur at I<sub>DC</sub> and low flux density.
- $\frac{LI^2}{2}$  rating is the ability of the inductor to store energy.
- Design control test voltage is critical. Inductance increases with voltage.

### Mechanicals



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

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{.025}$

Size Code	1	2	3	4	5
A	1.20/30,48	1.44/36,57	1.60/40,64	1.95/49,53	2.30/58,42
B	0.60/15,24	0.80/20,32	0.80/20,32	0.91/23,11	1.11/28,19
C	0.40/10,16	0.60/15,24	0.60/15,24	0.70/17,78	0.90/22,85
D	0.80/20,32	0.90/22,86	0.90/22,86	1.20/30,48	1.50/38,10
E	0.45/11,43	0.70/17,78	0.70/17,78	0.90/22,86	1.00/25,40
F	0.20/5,08	0.20/5,08	0.20/5,08	0.20/5,08	0.20/5,08
G	.015/0,381	0.03/0,76	0.03/0,76	0.03/0,76	0.03/0,76
H	1.20/30,48	1.44/36,57	1.72/43,68	2.00/50,80	2.30/58,42