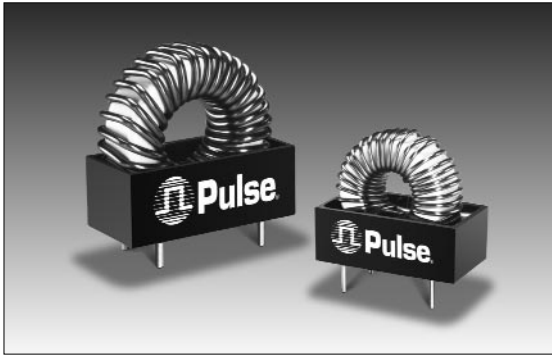


TOROIDAL INDUCTORS HIGH CURRENT



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

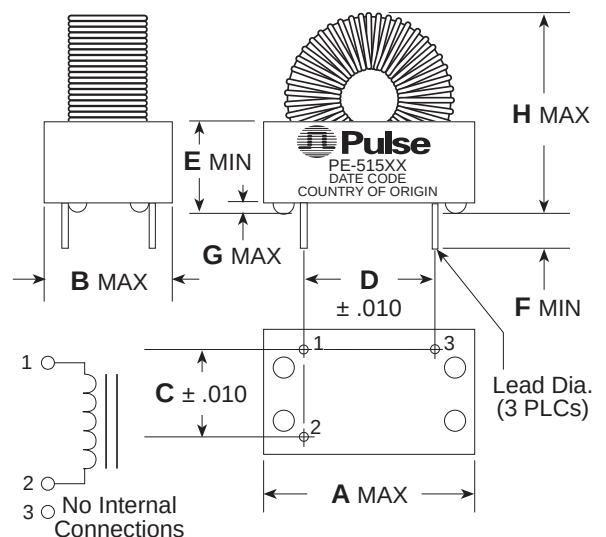
Electrical Specifications @ 25°C

REFERENCE OPERATING VALUES						DESIGN CONTROL VALUES				
Part Number	Inductance Typical (μH) ²	I _{DC} (AMPS)	ET _{OP} ¹ (V-μSec)		Energy Storage (μJ MIN) ³	Inductance No DC (μH) (±20%)	50 KHz Test mV No DC ⁵	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_{OP} to the rated ET_{OP} specified. This is not a saturation limit. Temperature rise of inductors is 40°C MAX at MAX current and rated ET_{OP}.
- A 2:1 nominal inductance swing from no I_{DC} to operating I_{DC} gives improved protection against current discontinuities at light loading. Inductance increases with greater ET_{OP}. Reference values occur at I_{DC} 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

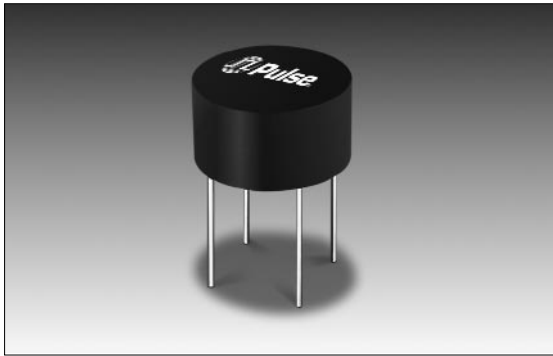


Dimensions: Inches
mm

Unless otherwise specified, all tolerances are ± .010
0.25

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	1.11/28,21
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

TOROIDAL INDUCTORS HIGH INDUCTANCE



- ⊕ High frequency, low loss operation (up to 100 KHz)
- ⊕ Encapsulated construction
- ⊕ Ambient temperature range of -55°C to +70°C
- ⊕ Good inductance stability with temperature

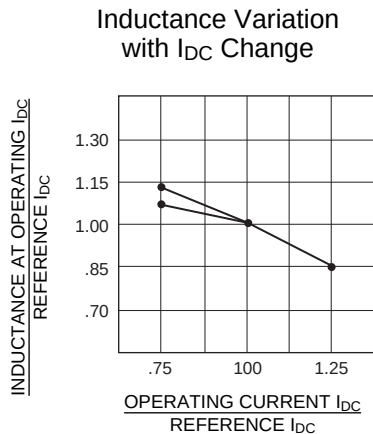
Electrical Specifications @ 25°C

REFERENCE OPERATING VALUES					DESIGN CONTROL VALUES		
Part Number	Inductance Typical (mH)	I _{DC} (AMPS)	Maximum E _{T OP} (V-μSec)	Energy Storage (μJ MIN) ¹	Inductance No DC (mHy) (±20%) ²	DCR (Ω MAX)	Size Code
PE-50500	0.5	.60	110	90	.72	0.35	7
PE-50501	1.0	.35	160	60	1.51	0.75	7
PE-50502	2.0	.25	225	60	2.88	1.30	7
PE-50503	0.5	1.75	325	765	.72	0.35	8
PE-50506	0.5	2.75	650	1890	.75	0.25	9
PE-50508	2.0	1.50	1200	2250	2.70	0.75	9

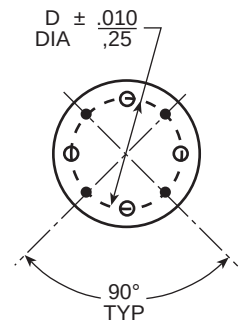
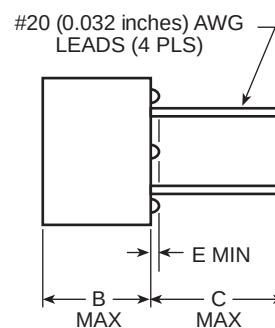
NOTES: 1. $\frac{LI^2}{2}$ rating is the ability of the inductor to store energy.
2

2. Inductance measured at 0.4 Volts and 20KHz.

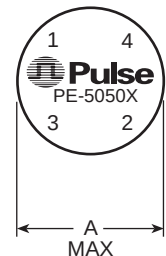
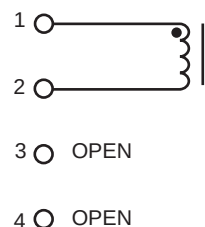
Mechanical



Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± .010
0,25



Schematic



Size Code	A	B	C	D	E
7	.754 18,92	.400 10,16	.500 12,70	.625 15,87	0.03 0,76
8	1.140 28,95	.665 16,89	.500 12,70	1.00 25,40	0.03 0,76
9	1.416 35,96	.850 21,59	.500 12,70	1.250 13,75	0.03 0,76