

# THT POWER INDUCTORS

## Toroid - Vertical, Low Profile and *KlipMount*<sup>™</sup>



- Available in vertical, low profile and *KlipMount*<sup>™</sup>
- SMPS averaging filter
- Characterized for general purpose use and ripple filters
- Single-layer designs
- Can be used as differential mode inductors in EMI filters<sup>3</sup>

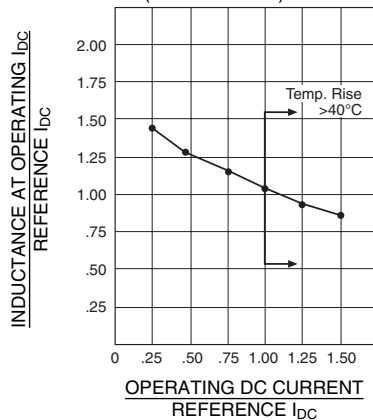
### Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C

REFERENCE OPERATING VALUES						DESIGN CONTROL VALUES					
Vertical <sup>6</sup> Part Number	Low Profile Part Number	Inductance <sup>1</sup> Typical ( $\mu$ H)	I <sub>DC</sub> (AMPS)	ET <sub>TOP</sub> (V- $\mu$ Sec)	Energy <sup>4</sup> Storage ( $\mu$ J)	Inductance No DC ( $\mu$ H) $\pm 20\%$	20kHz Test mV No DC <sup>2</sup>	DCR <sup>5</sup> ( $\Omega$ MAX)	Coil Size Code	Klip* Mount Package	Lead Diameter (In) $\pm .003$
PE-51591	—	20	2.0	52	40	32.8	33	.060	H	—	.020
PE-92100	—	25	2.6	30	85	20.7	22	.043	A	KM1	.020
PE-92101	PE-92401	50	2.6	50	169	45.7	45	.071	B	KM2	.020
PE-92102	PE-92402	100	2.6	90	338	94.1	90	.100	C	KM3	.020
PE-92103	—	35	2.6	55	118	28.4	36	.037	B	KM2	.025
PE-92104	PE-92404	70	3.0	85	315	61.0	73	.052	C	KM3	.025
PE-92105	PE-92405	145	3.0	140	653	141.8	140	.087	D	KM4	.025
PE-92106	—	285	3.0	300	1283	264.1	340	.140	E	KM5	.025
PE-92107	—	450	3.0	425	2025	436.3	500	.200	F	—	.025
PE-92108	PE-92408	67	3.6	130	648	90.7	110	.045	D	KM4	.032
PE-92109	—	165	4.0	240	1320	152.0	260	.070	E	KM5	.032
PE-92110	—	270	4.0	350	2160	263.9	400	.100	F	—	.032
PE-92111	—	40	4.0	70	320	37.9	57	.027	C	KM3	.032
PE-51590	—	22	5.0	44	275	20.3	37	.020	G	—	.032
PE-92112	PE-92412	100	5.0	200	1250	90.7	180	.034	E	KM5	.042
PE-92113	—	170	5.0	300	2125	159.7	310	.050	F	—	.042
PE-92114	PE-92414	35.6	5.0	100	688	55.6	88	.023	D	KM4	.042
PE-92115	—	95	7.0	225	2328	96.0	200	.025	F	—	.051
PE-92116	PE-92416	55	7.0	150	1348	49.1	100	.017	E	KM5	.051
PE-92117	—	55	10.0	175	2750	55.9	120	.013	F	—	.064

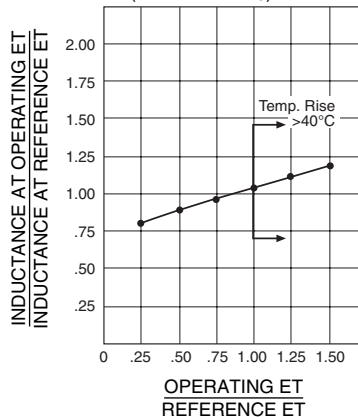
\*Parts available with *KlipMount* option can be ordered by adding a "K" suffix to the part number (i.e. PE-92100K).

### Relationships Between Reference and Operating Conditions

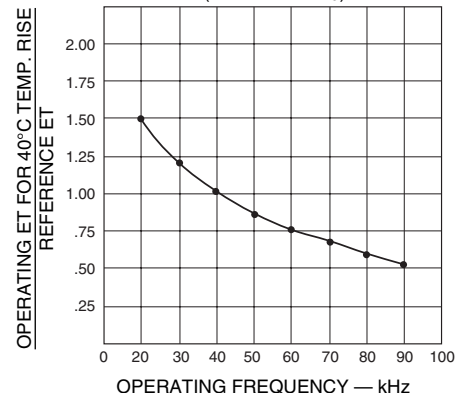
Inductance vs. DC Current  
(at reference ET)



Inductance vs. Operating ET  
(at reference I<sub>DC</sub>)



Max. Operating ET vs. Frequency  
(at reference I<sub>DC</sub>)



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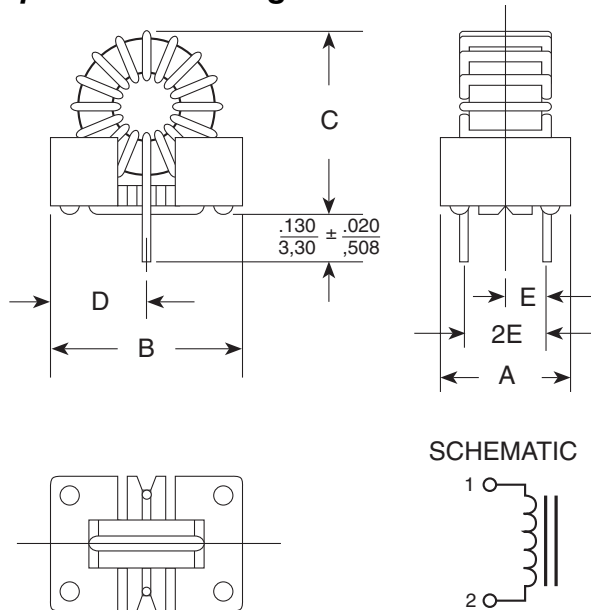
## Toroid - Vertical, Low Profile and *KlipMount™*



### Mechanicals

- Base material meets flammability requirements of UL 94V-0
- Mechanically rigid mount
- PC board — automatic insertability
- Lowest cost

### *KlipMount™* Package



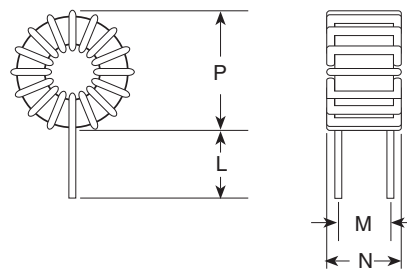
Standard Package	A	B	C	D	E
	Maximum			Typical	
KM-1	.340 8,64	.580 14,73	.650 16,51	.29 7,37	.110 2,79
KM-2	.450 11,43	.650 16,51	.700 17,78	.325 8,26	.150 3,81
KM-3	.450 11,43	.850 21,59	.950 24,13	.415 10,54	.150 3,81
KM-4	.620 15,50	.970 24,64	1.10 27,94	.475 12,07	.225 5,72
KM-5	.700 17,78	1.30 33,02	1.40 35,56	.625 15,88	.250 6,35

**Note:** Units with large wire sizes may exceed B dimension.  
*KLIPMOUNT™* is a trademark of Pulse Engineering, Inc.

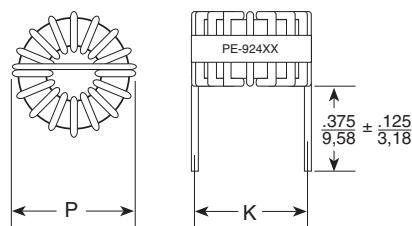
**Dimensions:** Inches / mm Unless otherwise specified, all tolerances are  $\pm .010$  /  $\pm 0,25$

Coil Size	P (MAX)	N (MAX)	L (+.125/-.025)	M	K
A	.550 13,97	.250 6,35	.375 9,53	.180 4,57	—
B	.700 17,78	.380 9,65	.375 9,53	.280 7,11	.530 $\pm$ .050 13,46 $\pm$ 1,27
C	.850 21,59	.410 10,41	.375 9,53	.280 7,11	.720 $\pm$ .050 18,29 $\pm$ 1,27
D	1.050 26,67	.550 13,97	.375 9,53	.400 10,16	.840 $\pm$ .020 21,24 $\pm$ 0,51
E	1.400 35,56	.700 17,78	.375 9,53	.500 12,7	1.100 $\pm$ .100 27,94 $\pm$ 2,54
F	1.650 41,91	.700 17,78	.375 9,53	.500 12,7	—
G	.850 21,59	.330 8,38	.875 22,23	.330 8,38	—
H	.640 16,26	.280 7,11	.875 22,23	.280 7,11	—

### Vertical Package



### Low Profile Package



#### NOTES:

1. Typical Inductance occurs at  $I_{DC}$  and  $E_{TOP}$  values shown.
2. Design control test voltage is critical. Inductance increases with voltage.
3. For line filter applications, RMS line current is limited to specified reference DC Current.
4.  $\frac{LI^2}{2}$  rating is the ability of the inductor to store energy.
5. DCR for vertical part measured close to coil. Add 10% more for low profile part.
6. RoHS compliant parts are available. Order RoHS compliant parts by adding the suffix "NL" to the part number (i.e. PE-51591 becomes PE-51591NL).

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