




SELF-LEADED SMT DUAL INDUCTORS



-  Materials meet UL 94V-0 rating
-  Frequency range of up to 1 MHz
-  Can be used as a simple inductor, 1:1 coupled inductor, or 1:1 transformer

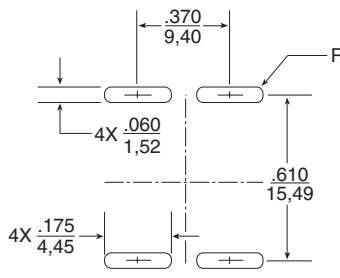
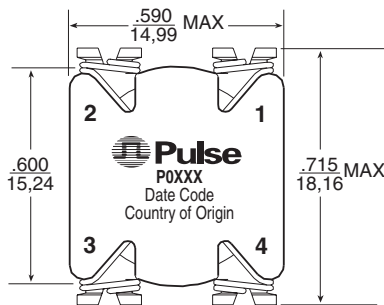
Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C

ID		Reference Values				Control Values		Calculation Data	
Part Number	Hookup	I _{bc} (amp)	L @ DC L _{DC} (μH)	ET (V-μsec)	Storage Capacity (μJoules)	L _{w/o} DC L ₀ ±20% (μH)	DCR (TYP) (mΩ)	100 Gauss ET ₁₀₀ (V-μsec)	1 Amp DC H ₁ (Orsted)
P0403	Series	1.50	139.1	45.00	156.47	202.2	295.60	16.26	35.78
P0402	Series	1.77	108.0	41.00	169.14	161.8	212.80	14.55	32.01
P0401	Series	2.20	72.0	33.00	174.26	109.8	152.60	11.98	26.36
P0400	Series	2.70	48.5	27.70	176.62	74.1	93.00	9.84	21.66
P0399	Series	2.85	30.6	20.50	124.18	40.5	84.00	7.27	16.01
P0403	Parallel	3.00	34.8	22.50	156.47	50.5	73.89	8.13	17.89
P0398	Series	3.40	23.1	18.10	133.80	31.5	59.70	6.42	14.12
P0402	Parallel	3.54	27.0	20.50	169.14	40.5	53.21	7.27	16.01
P0397	Series	4.10	17.0	15.70	142.57	23.7	41.90	5.56	12.24
P0401	Parallel	4.40	18.0	16.50	174.26	27.4	38.15	5.99	13.18
P0400	Parallel	5.40	12.1	13.85	176.62	18.5	23.24	4.92	10.83
P0396	Series	5.60	9.7	12.00	152.83	14.0	26.20	4.28	9.42
P0399	Parallel	5.70	7.6	10.25	124.18	10.1	20.99	3.64	8.00
P0398	Parallel	6.80	5.8	9.05	133.80	7.9	14.94	3.21	7.06
P0395	Series	7.20	6.1	9.60	159.01	9.0	17.60	3.42	7.53
P0397	Parallel	8.20	4.2	7.85	142.57	5.9	10.47	2.78	6.12
P0396	Parallel	11.20	2.4	6.00	152.83	3.5	6.54	2.14	4.71
P0395	Parallel	14.40	1.5	4.80	159.01	2.2	4.41	1.71	3.77

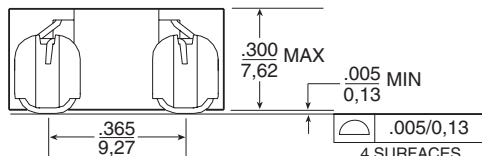
NOTES:

- The reference inductance is a typical value at the AC and DC excitation listed.
- Temperature rise is 55°C in typical buck or boost circuits at 100 KHz and with the reference ET applied to the inductor.
- Total loss in the inductor is 634 mWatts for a 55°C temperature rise above ambient.
- To estimate temperature rise in a given application, determine copper and core losses, divide by 634 and multiply by 50.
- For the copper loss, calculate I_{bc}² X R_N.
- For core loss (mW), using frequency (f in Hertz) and operating flux density (B in Gauss), calculate $2.24 \times 10^{-10} \times B^{2.11} \times f^{1.26}$.
- For flux density (B), calculate ET (V-μsec) for the application, divide by ET₁₀₀ from the table, and multiply by 100.
- For estimating L with DC current, calculate H by multiplying H₁ from the table by I_{bc} of the application. Using H, determine the DC perm Factor (F_{DC}). Multiply L_{w/o} DC by F_{DC} for L @ DC.
- Add suffix "T" to part number for tape and reel package (i.e. P0395T).

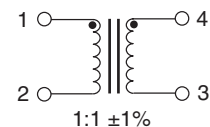
Mechanical



Suggested Pad Layout



Schematic



Weight 4.2 grams
Tape & Reel 300/reel
Tube 35/tube

Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± $\frac{.010}{0.25}$