Elec & Eltek依利安達
E & E Magnetic Products Limited

LOW COST THT POWER INDUCTORS

Toroid Type - Vertical Mount

- Available in vertical mount
- Characterized for general purpose use and ripple filters
- Can be used as differential mode inductors in EMI filters
- Can be used as SMPS averaging filter
- Single-layer design
- Operating temperature -40 C to +130 C
- RoHS compliant

ELECTRICAL SPECIFICATION @ 25°C

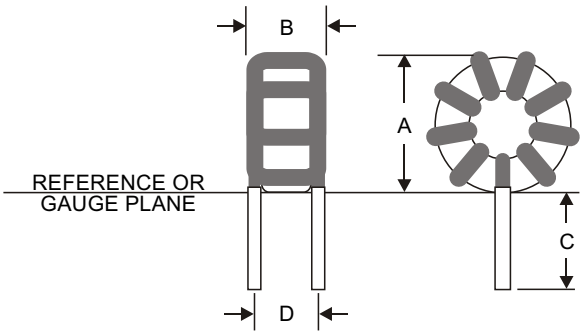
Part Number	Reference Operating Values				Design Control Values				
	Inductance[1] Typical (H)	IDC (A)	ETOP (V- Sec)	Energy[2] Storage (J)	Inductance[3] No DC (H) 20%	Inductance[4] Test Volt. (mV)	DCR[5] (Max)	Coil Size Code	Lead Diameter (Inch) .003
831-00167F	20	2.0	52	40	32.8	33	.060	8	.020
831-00168F	25	2.6	30	85	20.7	22	.043	1	.020
831-00169F	50	2.6	50	169	45.7	45	.071	2	.020
831-00170F	100	2.6	90	338	94.1	90	.100	3	.020
831-00171F	35	2.6	55	118	28.4	36	.037	2	.025
831-00172F	70	3.0	85	315	61.0	73	.052	3	.025
831-00173F	145	3.0	140	653	141.8	140	.087	4	.025
831-00174F	285	3.0	300	1283	264.1	340	.140	5	.025
831-00175F	450	3.0	425	2025	436.3	500	.200	6	.025
831-00053F	67	3.6	130	434	90.7	110	.045	4	.032
831-00176F	165	4.0	240	1320	152.0	260	.070	5	.032
831-00177F	270	4.0	350	2160	263.9	400	.100	6	.032
831-00178F	40	4.0	70	320	37.9	57	.027	3	.032
831-00179F	22	5.0	44	275	20.3	37	.020	7	.032
831-00180F	100	5.0	200	1250	90.7	180	.034	5	.042
831-00181F	170	5.0	300	2125	159.7	310	.050	6	.042
831-00182F	35.6	5.0	100	445	55.6	88	.023	4	.042
831-00183F	95	7.0	225	2328	96.0	200	.025	6	.051
831-00184F	55	7.0	150	1348	49.1	100	.017	5	.051
831-00185F	55	10.0	175	2750	55.9	120	.013	6	.064

Notes:

1. Typical inductance occurs at IDC and ETOP values shown.
2. $LI^2/2$ rating is the ability of the inductor to store energy.
3. Inductance is tested at 20kHz.
4. Design control test voltage is critical, inductance increases with voltage.
5. DCR for vertical part measured close to coil.
6. The part temperature (ambient temperature + temperature rise) should not exceed the upper limit of the operating temperature under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

MECHANICAL DIMENSIONS

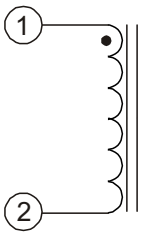
Size Code	A (Max)	B (Max)	C (+.125/-.025) (+3.18/-0.64)	D (.020) (0.51)
1	.550 13.97	.250 6.35	.375 9.53	.180 4.57
2	.700 17.78	.380 9.65	.375 9.53	.280 7.11
3	.850 21.59	.410 10.41	.375 9.53	.280 7.11
4	1.050 26.67	.550 13.97	.375 9.53	.400 10.16
5	1.400 35.56	.700 17.78	.375 9.53	.500 12.70
6	1.650 41.91	.700 17.78	.375 9.53	.500 12.70
7	.850 21.59	.330 8.38	.875 22.23	.228 5.79
8	.640 16.26	.280 7.11	.875 22.23	.280 7.11



Notes:

7. All dimensions are specified in $\frac{\text{inches}}{\text{mm}}$ with higher precedence in inches.
8. Unless otherwise specified, all tolerances are $\pm\frac{.010}{0.25}$.

SCHEMATICS



FOR MORE INFORMATION, PLEASE CONTACT

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