

Horizontal Mount Gapped Power Toroidal Inductor

The Horizontal Mount Power Toroidal Inductors manufactured by Engineered Components Company are designed using stable powdered iron core material. The toroidal core inductor design provides a low external magnetic field and a high core saturation currents.

The standard inductance value tolerance is +/-10% when measured at 1 KHz, ($I_{dc}=0$). Inductance values and Q values are measured on an HP 4284A LCR meter. Since inductance varies with AC/DC current values, each end application should be evaluated to ensure proper readings. The tabulated current ratings (Rated I_{dc}) are those calculated to cause a 40 deg. C rise in case temperature. These inductors are designed to meet the applicable portions of MIL-C-15305, Grade 1, Class B. The operating temperature range is -55 to +125 deg. C. Inductors are capable of withstanding 500Vdc@50 uA applied between the coil and the case.

The wound toroid inductor is secured in the housing with an epoxy resin. The housing material is a Liquid Crystal Polymer, off-white in color. Marking, applied by Laser Label, designates one coil termination lead with an indicator dot (see Figure 1). The second coil termination lead is designated by ribs on the side of the housing. The remaining leads are no-connection leads. The copper leads are tin-lead plated. The larger products (HMGPT-47 and larger) have a brass insert (in accordance with specification QQ-B-626) with (4) 8-32 threads available on the bottom of the part. This threaded female insert can be used to mechanically mount or secure the product to a P.C. Board or chassis.

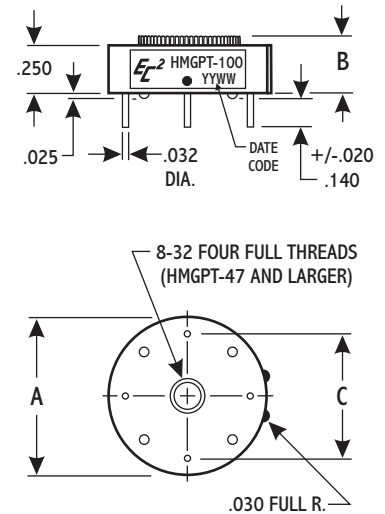


Figure 1

Product Selection Table

I_{dc} (amps) readings for % drops

PART NUMBER	L (uH)	A	B	C	DCR (ohms)	RATED I_{dc} (amps)	10% DROP IN L	20% DROP IN L	30% DROP IN L
HMGPT-5.6	5.6	0.620	0.300	0.500	0.005	5.7	4.70	5.20	5.45
HMGPT-6.8	6.8	0.620	0.300	0.500	0.006	5.7	4.30	4.70	4.95
HMGPT-8.2	8.2	0.620	0.300	0.500	0.007	5.7	3.70	4.15	4.34
HMGPT-10	10.0	0.620	0.300	0.500	0.008	5.7	3.50	3.90	4.10
HMGPT-12	12.0	0.770	0.350	0.650	0.009	5.7	4.90	5.40	5.70
HMGPT-15	15.0	0.770	0.350	0.650	0.010	5.7	4.60	5.10	5.35
HMGPT-18	18.0	0.770	0.350	0.650	0.011	5.7	4.10	4.60	4.90
HMGPT-22	22.0	0.970	0.350	0.850	0.013	5.7	4.30	4.70	4.90
HMGPT-27	27.0	0.970	0.350	0.850	0.014	5.7	3.80	4.20	4.40
HMGPT-33	33.0	0.970	0.350	0.850	0.015	5.7	3.40	3.80	3.95
HMGPT-39	39.0	0.970	0.350	0.850	0.016	5.7	3.20	3.55	3.75
HMGPT-47	47.0	1.170	0.450	1.050	0.019	5.7	4.20	4.70	5.00
HMGPT-56	56.0	1.170	0.450	1.050	0.021	5.7	4.00	4.50	4.70
HMGPT-68	68.0	1.170	0.450	1.050	0.023	5.7	3.60	4.05	4.30
HMGPT-82	82.0	1.170	0.450	1.050	0.025	5.7	3.30	3.70	3.95
HMGPT-100	100.0	1.170	0.450	1.050	0.027	5.7	3.00	3.30	3.50
HMGPT-120	120.0	1.470	0.550	1.300	0.031	5.7	3.40	3.80	4.00
HMGPT-150	150.0	1.470	0.550	1.300	0.034	5.7	3.10	3.50	3.70
HMGPT-180	180.0	1.470	0.550	1.300	0.036	5.7	2.90	3.20	3.30
HMGPT-220	220.0	1.470	0.550	1.300	0.041	5.7	2.70	2.95	3.10
HMGPT-270	270.0	1.470	0.550	1.300	0.046	5.7	2.00	2.55	2.65
HMGPT-330	330.0	1.770	0.650	1.600	0.057	5.7	2.90	3.30	3.50
HMGPT-390	390.0	1.770	0.650	1.600	0.063	5.7	2.70	3.00	3.20
HMGPT-470	470.0	1.770	0.650	1.600	0.068	5.7	2.50	2.80	3.00
HMGPT-560	560.0	1.770	0.650	1.600	0.076	5.7	2.25	2.55	2.70
HMGPT-680	680.0	1.870	0.725	1.700	0.069	5.7	2.80	3.20	3.40
HMGPT-820	820.0	1.870	0.725	1.700	0.076	5.7	2.55	2.90	3.05
HMGPT-1000	1000.0	1.870	0.725	1.700	0.084	5.7	2.30	2.60	2.80
HMGPT-1200	1200.0	1.870	0.725	1.700	0.094	5.7	2.00	2.30	2.50

Special modules can often be manufactured to provide for customer specific applications.



engineered components company

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