

ELECTRICAL SPECIFICATIONS

SIZE	25CT	37CT	50CT	62CT	75CT	87CT	100CT
POWER - VA	.075	.35	1.5	3.0	6.0	16	30
R (4-5) - OHMS	11K	2.3K	560	260	130	45	25
I _x - mA	1.0	3.5	5.0	9.0	12	18	26

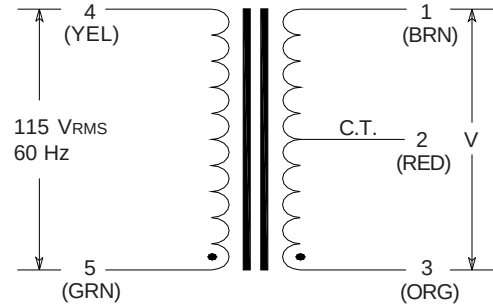
PART NUMBER	V _{RMS} VOLTS	I _{RMS} AMPS	URNS RATIO (4-5) TO (1-3) ±2%	RESISTANCE OHMS ±20% (1-2) & (2-3)
25CT48	100	.00075	1:1	4100
25CT45	50	.00150	2:1	1000
25CT44	40	.00187	2.5:1	670
25CT42	25	.00300	4:1	260
25CT41	20	.00375	5:1	170
25CT39	12.6	.0060	8:1	63
25CT38	10.0	.0075	10:1	40
25CT36	6.3	.012	16:1	16
25CT33	3.12	.024	32:1	4
25CT30	1.56	.048	64:1	1
37CT42	100	.0035	1:1	870
37CT39	50	.0070	2:1	200
37CT38	40	.0088	2.5:1	130
37CT36	25	.0140	4:1	51
37CT35	20	.0175	5:1	32
37CT33	12.6	.028	8:1	13
37CT32	10.0	.035	10:1	8.4
37CT30	6.3	.056	16:1	3.3
37CT27	3.12	.112	32:1	.83
37CT24	1.56	.224	64:1	.23
50CT38	100	.015	1:1	220
50CT35	50	.030	2:1	56
50CT34	40	.038	2.5:1	36
50CT32	25	.060	4:1	14
50CT31	20	.075	5:1	9.2
50CT29	12.6	.120	8:1	3.6
50CT28	10.0	.150	10:1	2.4
50CT26	6.3	.240	16:1	.92
50CT23	3.12	.480	32:1	.23
50CT20	1.56	.960	64:1	.065
62CT36	100	.030	1:1	110
62CT33	50	.060	2:1	27
62CT32	40	.075	2.5:1	17
62CT30	25	.120	4:1	7.0
62CT29	20	.150	5:1	4.5
62CT27	12.6	.240	8:1	1.7
62CT26	10.0	.300	10:1	1.1
62CT24	6.3	.480	16:1	.45
62CT21	3.12	.960	32:1	.12
62CT18	1.56	1.92	64:1	.032
75CT33	100	.060	1:1	54
75CT30	50	.120	2:1	13
75CT29	40	.150	2.5:1	8.4
75CT27	25	.240	4:1	3.3
75CT26	20	.300	5:1	2.1
75CT24	12.6	.480	8:1	.84
75CT23	10.0	.600	10:1	.53
75CT21	6.3	.960	16:1	.22
75CT18	3.12	1.92	32:1	.061
75CT15	1.56	3.84	64:1	.015
87CT30	100	.160	1:1	19
87CT27	50	.320	2:1	4.7
87CT26	40	.400	2.5:1	3.0
87CT24	25	.640	4:1	1.2
87CT23	20	.800	5:1	.75
87CT21	12.6	1.28	8:1	.30
87CT20	10.0	1.60	10:1	.20
87CT18	6.3	2.56	16:1	.083
87CT15	3.12	5.12	32:1	.021
100CT27	100	.300	1:1	9.8
100CT24	50	.600	2:1	2.4
100CT23	40	.750	2.5:1	1.5
100CT21	25	1.20	4:1	.61
100CT20	20	1.50	5:1	.39
100CT18	12.6	2.40	8:1	.16
100CT17	10.0	3.00	10:1	.11
100CT15	6.3	4.80	16:1	.047

APPLICATION FEATURES

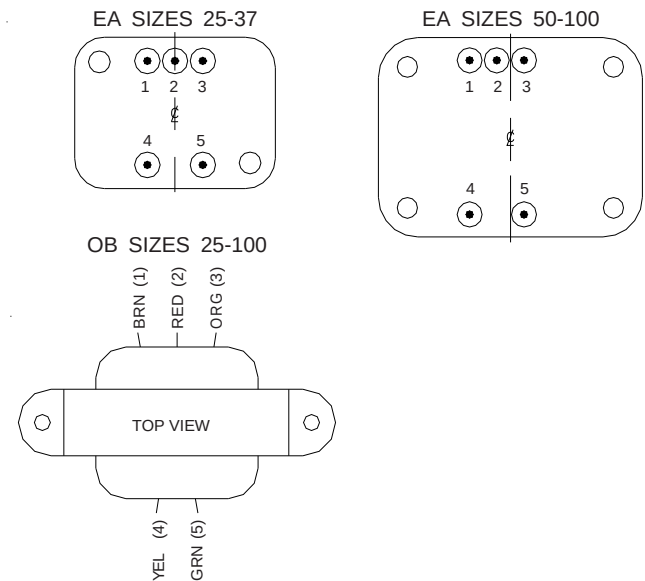
LOW FREQUENCY CAPABILITY — 40 thru 400 Hz with primary voltages up to 150 V_{RMS} without significant saturation effects.

LOW EXTERNAL MAGNETIC FIELD — High performance core and winding configuration minimize stray magnetic field.

SCHEMATIC



TERMINAL / LEAD LOCATION



NOTES

- Power (P) and secondary voltage (V_{RMS}) are at rated secondary current with a regulation of 15%.
- Dielectric withstanding voltage is 500 V_{RMS}, 60 Hz.
- All of these parts are available in any of the MCE Miniature Line package options (see EA, CA, & OB Packaging Bulletins), and printed circuit board bobbins as modified standard parts.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.				115 V - 60 Hz TRANSFORMERS	
PROD.	JP	9-25-12							
ENG.	JC	9-25-12							
Q.A.	BT	9-25-12	TEST CONDITION 20° ± 5° C	DECIMALS .XX = ± .03 .XXX = ± 0.10	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. CT	
REV.									

APPLICATION FEATURES

Reliability -

Designed to meet MIL-PRF-27 Grade 5, Class S (130°C).

High Density Package-

Molded plastic cup designed to fit standard core sizes.

Flexibility -

Through-holes permit terminal side to be mounted against or opposite mounting surfaces.

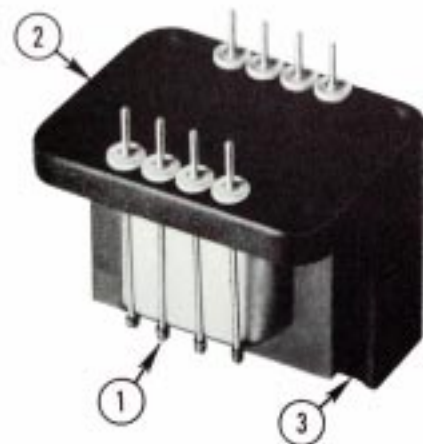
Attractive Appearance-

Teflon-collar terminals adds aesthetic qualities to assemblies.



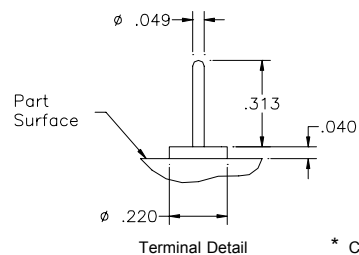
DESIGN FEATURES

- Extended solid-pin terminals. This unique MCE design feature provides multiple values:
 - Susceptibility of internal solder joint to heating at time of external connection is minimized due to the long distance the heat must travel.
 - Unit contains only one solder connection per terminal instead of the conventional two for improved reliability.
 - Manufacturing method positions coil leads adjacent to terminals thus minimizing length of coil lead in plastic and eliminates need for flex leads.
 - Coil lead is mechanically wrapped around terminal and solder connection is exposed during assembly for inspection.
 - Terminals are precision located for use in printed circuit boards.
- Encapsulation cup is high-temperature glass-filled for physical stability.
- Epoxy encapsulation material is resistant to thermal and mechanical stress.



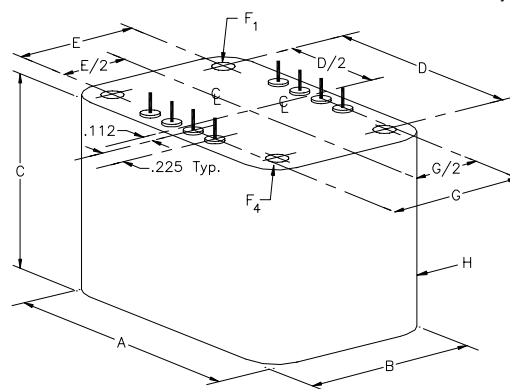
MECHANICAL SPECIFICATIONS

The mechanical data shown applies to all MCE Standard Miniature parts offered in the EA package. For terminal location of a specific part, see appropriate electrical application series Product Bulletin. (e.g., FL, RT, etc.)



* Case No. 25 & 37 have F1 & F4 Mount Holes only.

CASE SIZE	WT. LBS.	OUTSIDE DIMENSIONS			MOUNTING DIM.		HOLE DIA.	TERM. DIM.		CASE RAD.
		A MAX	B MAX	C MAX	D ±.015	E ±.015	F ±.010	G ±.015	H (REF)	
25	.15	1.37	1.19	.97	1.000	.828	.157*	.812	.16	
37	.26	1.63	1.35	1.31	1.157	.875	.185*	.953	.21	
50	.51	1.98	1.60	1.59	1.500	1.125	.185	1.203	.21	
62	.78	2.20	1.73	1.84	1.688	1.250	.185	1.313	.21	
75	1.3	2.60	1.98	2.15	2.000	1.438	.185	1.562	.25	
87	2.1	3.03	2.24	2.47	2.438	1.625	.212	1.828	.26	
100	2.8	3.38	2.47	2.84	2.688	1.750	.212	2.062	.31	



	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. 		
PROD.	JAP	11-1-06		MINIATURE LINE PACKAGING BULLETIN		
ENG.	JC	11-1-06				
Q.A.	BT	11-1-06	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	DESCRIPTION ENCAPSULATED TYPE PARTS	SIZE A	DWG. NO. EA
REV.	C	11-1-06				

APPLICATION FEATURES

- Reliability** - Simple circuit.
Designed to meet MIL-PRF-27 Grade 5, Class S (130°C)
- Low Harmonics** - The sine wave is generated directly instead of square wave with load sensitive filters. Subsequently, low noise in DC line and low EMI.
- Self Switching** - Minimizes transistor losses.
- Flexibility** - Through-holes permit terminal side to be mounted against or opposite mounting surfaces.

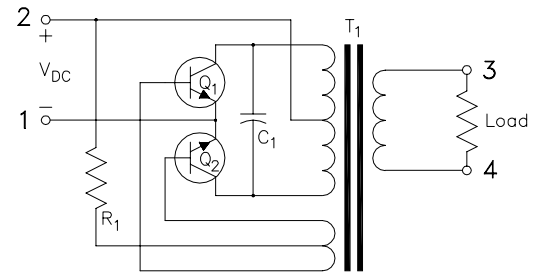


ELECTRICAL SPECIFICATIONS

P/N	INPUT		OUTPUT		
	V _{DC}	mADC	V _{RMS}	mA _{RMS}	Hz
EA75SW86	28	480	115*	75	400

*Unregulated

SCHEMATIC

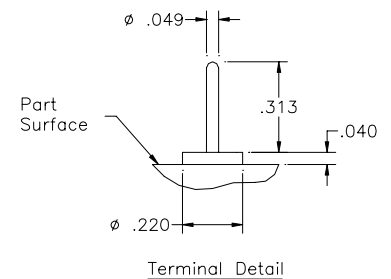


DESIGN FEATURES

- Terminals are precision located for use with printed circuit boards.
- Encapsulation cup is high-temperature glass-filled for physical stability.
- Epoxy encapsulation material is resistant to thermal and mechanical stress.

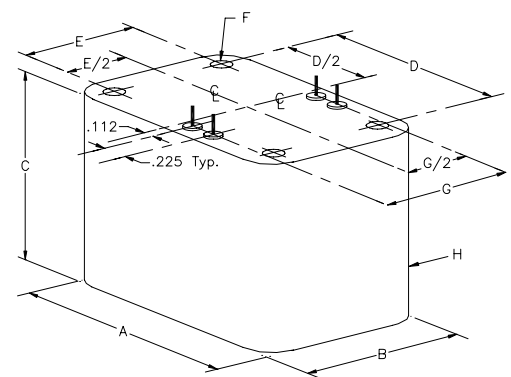
MECHANICAL SPECIFICATIONS

CASE SIZE	WT. LBS.	OUTSIDE DIMENSIONS			MOUNTING DIM.		HOLE DIA.	TERM. DIM.	CASE RAD.
		A MAX	B MAX	C MAX	D ±.015	E ±.015	F ±.010	G ±.015	H (REF.)
75	.93	2.60	1.98	1.83	2.000	1.438	.185	1.562	.25



NOTES

- Other voltages available as modified standard parts. Contact an MCE Application Engineer for further information.
- If the terminals are inserted into a PC board and bolted, 0.040 inch thick washers are available to level the part with the terminal shoulder. Add a 'W' to the end of the part number to include the washers as a separate item in the shipment.



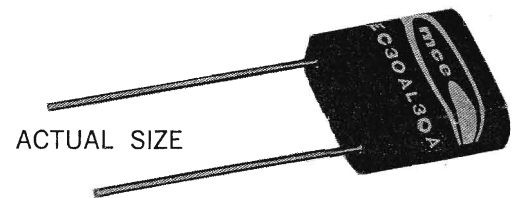
PROD.	INIT.	DATE	TOLERANCES DECIMALS (IN.) .XX = ± 0.03 .XXX = ± 0.010 ANGLE = ± 0.5°	MAGNETIC CIRCUIT ELEMENTS INC. 		
				8.6 W, 115 V _{RMS} , 400 Hz SINE WAVE INVERTER		
ENG.	JC	11-1-06	CAGE 09349	DESCRIPTION ENCAPSULATED TYPE PARTS	SIZE A	DWG. NO. EA SW
Q.A.	B.T.	11-1-06				
REV.	B	11-1-06				

TOROIDAL INDUCTORS

APPLICATION FEATURES

WIDE SELECTION — Inductance values from 1.82 millihenries to 1.78 henries are offered in 2.5 % increments with a tolerance of $\pm 1\%$.

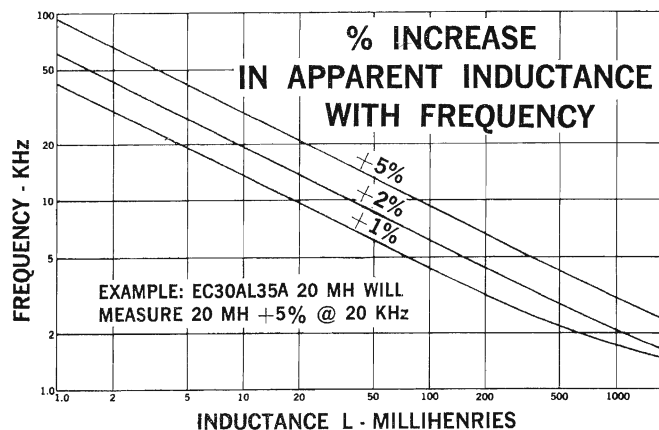
PACKAGING FOR P.C. BOARDS — Epoxy Encapsulated unit for plug-in on Standard 0.1 inch grid spacing. "Crystal" case requires small board area.



ACTUAL SIZE

SPECIFICATIONS

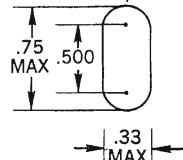
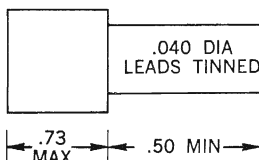
1. Select the specific value of inductance L desired from RANGE of VALUES and STANDARD INDUCTANCE VALUES tables. Specify PART NUMBER and inductance value.
2. Corresponding DCR for selected value of L is:
 $DCR = .352 \sqrt{L L_H}$ ohms $\pm 25\%$.
3. All inductance values are at 1 KHz test voltages E_T .
 E_T (Millivolts) = $20.8 \sqrt{L}$ (L in millihenries). This corresponds to a flux density of 40 gauss.
4. Temperature coefficient of inductance is positive and less than 250 PPM/ $^{\circ}\text{C}$ average over a temperature range of -55°C to $+125^{\circ}\text{C}$. Compensation for temperature may be obtained when used with polystyrene foil capacitors in resonant meshes. Temperature stabilized inductors are available on special order.
5. Max. temperature rating = 130°C .
6. Dielectric Withstanding Voltage = 1500V-RMS 60Hz & Insulation Resistance ≥ 1000 megohms at 500 VDC from coil to mounting plate.
7. All electrical data at $20 \pm 5^{\circ}\text{C}$.



MECHANICAL SPECIFICATIONS

WT. = 7 GRAMS

FULL RADIUS



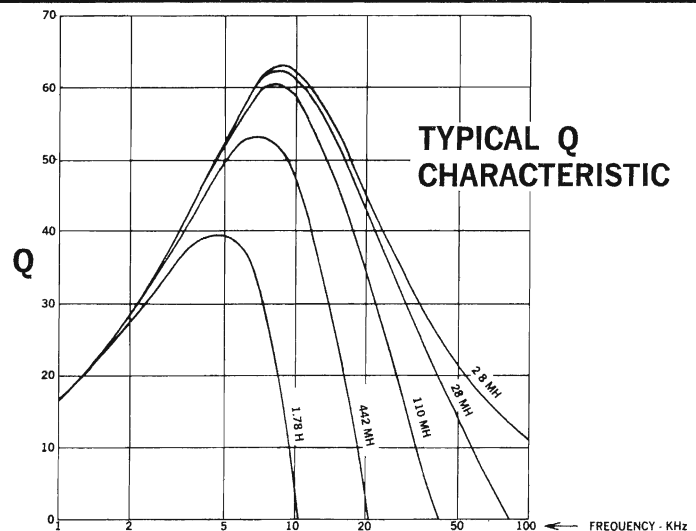
RANGE OF VALUES

PART NUMBER	LOW		HIGH	
	$L_L \pm 1\%$ MILLI-HENRIES	DCR $\pm 25\%$ OHMS	$L_H \pm 1\%$ MILLI-HENRIES	DCR $\pm 25\%$ OHMS
EC30AL30A	1.82	.796	2.80	.993
EC30AL31A	2.87	1.26	4.42	1.57
EC30AL32A	4.53	1.99	6.98	2.50
EC30AL33A	7.15	3.15	11.0	3.94
EC30AL34A	11.3	4.99	17.8	6.27
EC30AL35A	18.2	7.96	28.0	9.93
EC30AL36A	28.7	12.6	44.2	15.7
EC30AL37A	45.3	19.9	69.8	20.5
EC30AL38A	71.5	31.5	110	39.4
EC30AL39A	113	49.9	178	62.7
EC30AL40A	182	79.6	280	99.3
EC30AL41A	287	126	442	157
EC30AL42A	453	199	698	205
EC30AL43A	715	315	1100	394
EC30AL44A	1130	499	1780	627

DECADE TABLE FOR STANDARD INDUCTANCE VALUES

1.00	1.21	1.47	1.78	2.15	2.61	3.16	3.83	4.64	5.62	6.81	8.25
1.02	1.24	1.50	1.82	2.21	2.67	3.24	3.92	4.75	5.76	6.98	8.45
1.05	1.27	1.54	1.87	2.26	2.74	3.32	4.02	4.87	5.90	7.15	8.66
1.07	1.30	1.58	1.91	2.32	2.80	3.40	4.12	4.99	6.04	7.32	8.87
1.10	1.33	1.62	1.96	2.37	2.87	3.48	4.22	5.11	6.19	7.50	9.09
1.13	1.37	1.65	2.00	2.43	2.94	3.57	4.32	5.23	6.34	7.68	9.31
1.15	1.40	1.69	2.05	2.49	3.01	3.65	4.42	5.36	6.49	7.87	9.53
1.18	1.43	1.74	2.10	2.55	3.09	3.74	4.53	5.49	6.65	8.06	9.76

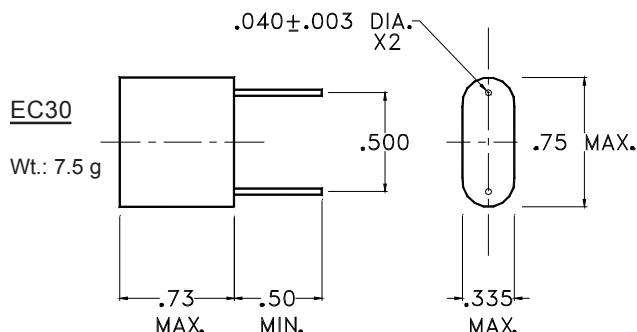
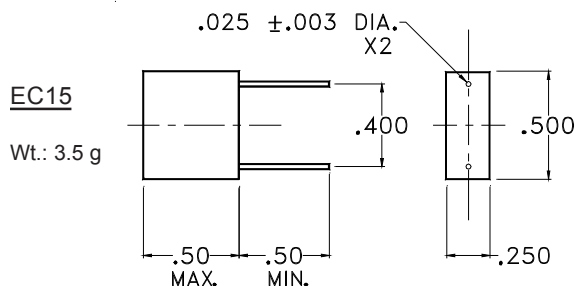
Standard Inductance Values are obtained from above Decade Table as any multiple of 10. Examples: 2.15, 21.5 & 215 MH.



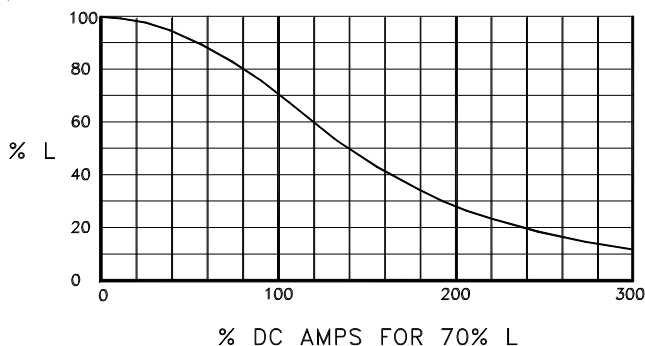
ELECTRICAL SPECIFICATIONS

PART NUMBER	L_0 +15% -10% MILLI-H	DCR ±15% OHMS	DC AMPS FOR 70% L	MAX DC AMPS FOR 50°C RISE	SELF RES. FREQ. -KHZ
EC15HL23	.0041	.0083	4.7	8.0	>1000
EC15HL24	.0067	.012	3.8	6.7	>1000
EC15HL25	.010	.017	3.0	5.7	>1000
EC15HL26	.016	.025	2.4	4.7	>1000
EC15HL27	.027	.038	1.9	3.8	>1000
EC15HL28	.040	.058	1.5	3.0	>1000
EC15HL29	.065	.084	1.2	2.5	>1000
EC15HL30	.10	.15	.95	1.9	>1000
EC15HL31	.16	.24	.75	1.5	>1000
EC15HL32	.25	.38	.60	1.2	>1000
EC15HL33	.40	.60	.47	.94	>1000
EC15HL34	.63	.96	.38	.76	>1000
EC15HL35	1.0	1.5	.30	.60	>1000
EC15HL36	1.6	2.4	.24	.48	750
EC15HL37	2.5	3.8	.19	.38	690
EC15HL38	4.0	6.0	.15	.30	420
EC15HL39	6.3	9.6	.12	.24	290
EC15HL40	10	15	.095	.19	220
EC15HL41	16	24	.075	.15	155
EC15HL42	25	38	.060	.12	125
EC15HL43	40	60	.047	.094	100
EC15HL44	63	96	.038	.072	75
EC15HL45	100	155	.030	.060	50
EC30HL19A	.0095	.007	7.2	12	>1000
EC30HL20A	.016	.011	5.8	9.0	>1000
EC30HL21A	.025	.016	4.6	7.6	>1000
EC30HL22A	.041	.025	3.7	6.0	>1000
EC30HL23A	.061	.038	2.9	4.9	>1000
EC30HL24A	.10	.063	2.3	3.8	>1000
EC30HL25A	.16	.10	1.8	3.0	>1000
EC30HL26A	.25	.16	1.5	2.4	>1000
EC30HL27A	.40	.25	1.2	1.9	>1000
EC30HL28A	.63	.40	.92	1.6	930
EC30HL29A	1.0	.63	.72	1.2	690
EC30HL30A	1.6	1.0	.58	.96	510
EC30HL31A	2.5	1.6	.46	.76	380
EC30HL32A	4.0	2.5	.37	.60	280
EC30HL33A	6.3	4.0	.29	.48	210
EC30HL34A	10	6.3	.23	.38	160
EC30HL35A	16	10	.18	.30	130
EC30HL36A	25	16	.15	.24	100
EC30HL37A	40	25	.12	.19	75
EC30HL38A	63	40	.092	.16	60
EC30HL39A	100	63	.072	.12	45
EC30HL40A	160	100	.058	.096	36
EC30HL41A	250	160	.046	.076	28
EC30HL42A	400	250	.037	.060	21

MECHANICAL SPECIFICATIONS



INDUCTANCE WITH DC



NOTES

1. Initial inductance (L_0) is measured at 1 KHz.
2. DC Amps maximum rating is DC and RMS AC combined for a 50°C rise at an ambient of 20°C and with no heat sink.
3. Designed to meet MIL-PRF-27 Grade 5, Class S(130°C).
4. Self-Resonant Frequency is typical and for reference only.
5. For very low values of L & DCR, measure adjacent to case.
6. Pins are tinned copper.

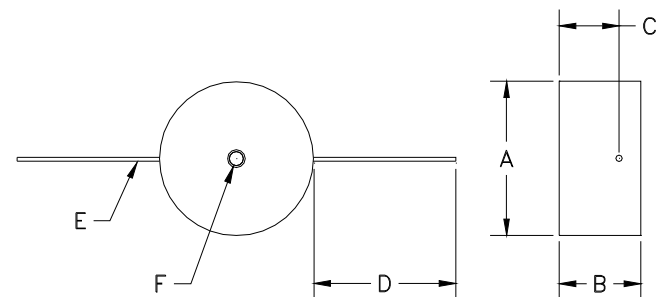
INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD. <i>MP</i>	2-15-10		TOROIDAL SWINGING CHOKES - NICKEL POWDER				
ENG. <i>JC</i>	2-15-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. ECHL
Q.A. <i>B7</i>	2-15-10						
REV. C	2-15-10						

ELECTRICAL SPECIFICATIONS

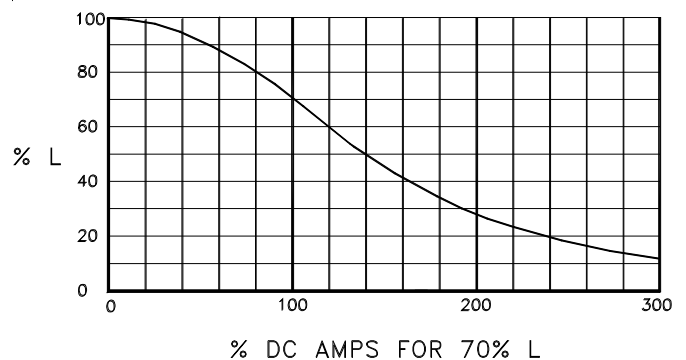
PART NUMBER	$L_0 \pm 15\%$ MILLI-H	DCR $\pm 20\%$ OHMS	DC AMPS for 70% L	MAX DC AMPS for 50°C RISE	SELF RES. FREQ. - kHz
ED50HL18	.10	.019	4.3	11	>1000
ED50HL19	.16	.031	3.4	8.6	>1000
ED50HL20	.25	.049	2.7	6.9	>1000
ED50HL21	.40	.078	2.2	5.4	>1000
ED50HL22	.63	.12	1.8	4.4	800
ED50HL23	1.0	.19	1.4	3.4	600
ED50HL24	1.6	.31	1.1	2.7	400
ED50HL25	2.5	.49	.85	2.1	300
ED50HL26	4.0	.78	.68	1.7	200
ED50HL27	6.3	1.2	.54	1.4	160
ED50HL28	10	1.9	.43	1.1	150
ED50HL29	16	3.1	.34	.86	120
ED50HL30	25	4.9	.27	.69	95
ED50HL31	40	7.8	.22	.54	73
ED50HL32	63	12	.18	.44	58
ED50HL33	100	19	.14	.34	45
ED50HL34	160	31	.11	.27	35
ED50HL35	250	49	.085	.21	28
ED50HL36	400	78	.068	.17	22
ED50HL37	630	120	.054	.14	17
ED50HL38	1000	190	.043	.11	13
ED58HL16	.10	.013	7.8	15	>1000
ED58HL17	.16	.021	6.2	12	>1000
ED58HL18	.25	.032	4.9	9.5	>1000
ED58HL19	.40	.052	4.0	7.8	>1000
ED58HL20	.63	.080	3.1	6.0	770
ED58HL21	1.0	.13	2.5	4.8	550
ED58HL22	1.6	.21	2.0	3.7	400
ED58HL23	2.5	.32	1.6	3.0	290
ED58HL24	4.0	.52	1.3	2.6	210
ED58HL25	6.3	.80	.98	1.9	150
ED58HL26	10	1.3	.78	1.5	120
ED58HL27	16	2.1	.62	1.2	90
ED58HL28	25	3.2	.49	.95	70
ED58HL29	40	5.2	.40	.78	50
ED58HL30	63	8.0	.31	.60	40
ED58HL31	100	13	.25	.48	32
ED58HL32	160	21	.20	.37	25
ED58HL33	250	32	.16	.30	19
ED58HL34	400	52	.13	.26	15
ED58HL35	630	80	.098	.19	11
ED58HL36	1000	130	.078	.15	10
ED78HL12	.10	.0061	8.3	24	>1000
ED78HL13	.16	.010	6.6	19	>1000
ED78HL14	.25	.015	5.2	15	>1000
ED78HL15	.40	.024	4.1	12	750
ED78HL16	.63	.039	3.3	9.3	580
ED78HL17	1.0	.061	2.6	7.3	430
ED78HL18	1.6	.10	2.1	6.0	330
ED78HL19	2.5	.15	1.7	4.7	250
ED78HL20	4.0	.24	1.3	3.7	190
ED78HL21	6.3	.39	1.1	2.9	140
ED78HL22	10	.61	.83	2.4	120
ED78HL23	16	1.0	.66	1.9	90
ED78HL24	25	1.5	.52	1.5	70
ED78HL25	40	2.4	.41	1.2	60
ED78HL26	63	3.9	.33	.93	45
ED78HL27	100	6.1	.26	.73	35
ED78HL28	160	10	.21	.60	28
ED78HL29	250	15	.17	.47	22
ED78HL30	400	24	.13	.37	17
ED78HL31	630	39	.11	.29	14
ED78HL32	1000	61	.083	.24	11
ED95HL10	.10	.0042	11	35	>1000
ED95HL11	.16	.0065	9.0	29	>1000
ED95HL12	.25	.011	7.2	23	>1000
ED95HL13	.40	.017	5.7	18	700
ED95HL14	.63	.026	4.5	14	500
ED95HL15	1.0	.042	3.6	11	370
ED95HL16	1.6	.065	2.9	9.0	260
ED95HL17	2.5	.11	2.3	7.2	190
ED95HL18	4.0	.17	1.8	5.5	130
ED95HL19	6.3	.26	1.4	4.4	75
ED95HL20	10	.42	1.1	3.5	60
ED95HL21	16	.65	.90	2.9	45
ED95HL22	25	1.1	.72	2.3	40
ED95HL23	40	1.7	.57	1.8	30
ED95HL24	63	2.6	.45	1.4	27
ED95HL25	100	4.2	.36	1.1	25
ED95HL26	160	6.5	.29	.90	18
ED95HL27	250	11	.23	.72	15
ED95HL28	400	17	.18	.55	13
ED95HL29	630	26	.14	.44	10
ED95HL30	1000	42	.11	.35	8

MECHANICAL SPECIFICATIONS

SIZE	A MAX	B MAX	C $\pm .03$	D MIN	E $\pm .01$	F INSERT	WT. (g)
ED50	1.12	.68	.47	1.06	.064	#4-40	33
ED58	1.40	.89	.67	1.27	.064	#6-32	75
ED78	1.80	1.10	.85	1.48	.064	#8-32	125
ED95	2.20	1.40	1.06	1.74	.081	#8-32	240



INDUCTANCE WITH DC



NOTES

- Initial inductance (L_0) is measured at 1 KHz.
- DC Amps maximum rating is DC and RMS AC combined for a 50°C rise at an ambient of 20°C and with no heat sink.
- Designed to meet MIL-PRF-27 Grade 5, Class S (130°C).
- Self-Resonant Frequency is typical and for reference only.
- Dielectric Withstanding Voltage (winding-to-insert) is 1500 VRMS, 60 Hz.
- For very low values of L & DCR, measure adjacent to case.
- All mechanical measurements are in inches.
- Pins are tinned copper.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	MAP	2-15-10		TOROIDAL SWINGING CHOKES - NICKEL POWDER			
ENG.	JC	2-15-10					
Q.A.	B7	2-15-10	TEST CONDITION 20° ± 5° C	DECIMALS .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.	C	2-15-10					DWG. NO. EDHL

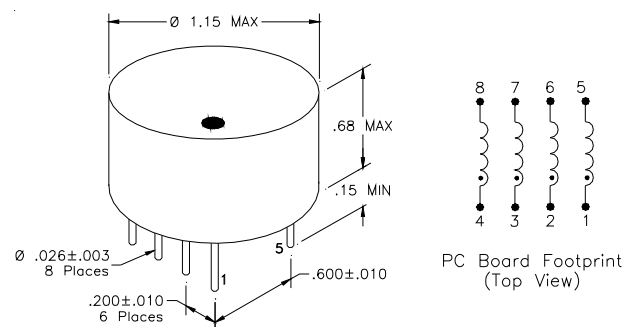
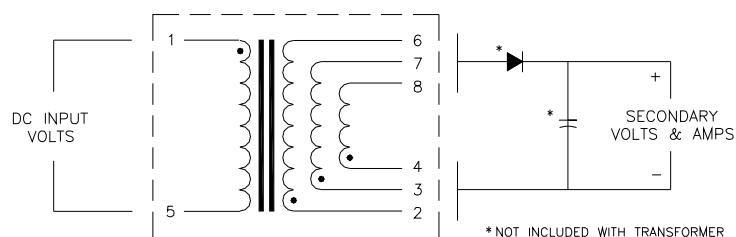
ELECTRICAL SPECIFICATIONS

PART NUMBER	FREQUENCY kHz	DC INPUT VOLTS	SECONDARY VOLTS	SECONDARY AMPS	PRIMARY L $\pm 10\%$ MICRO - H	PRIMARY LEAKAGE (TYP) MICRO - H	PRIMARY DCR $\pm 10\%$ MILLI - OHMS	SECONDARY DCR $\pm 10\%$ MILLI - OHMS
EE17GT7	100	43 - 57	7.0	2.5	96	1.6	260	8.7
EE17GT12	100	43 - 57	12	1.5	96	1.0	260	20
EE17GT24	100	43 - 57	24	.75	96	1.0	260	70
EE20GT12	100	120 - 370	12	4.0	256	6.0	310	7.0
EE20GT24	100	120 - 370	24	2.0	256	5.0	310	16
EE20GT48	100	120 - 370	48	1.0	256	5.0	310	71

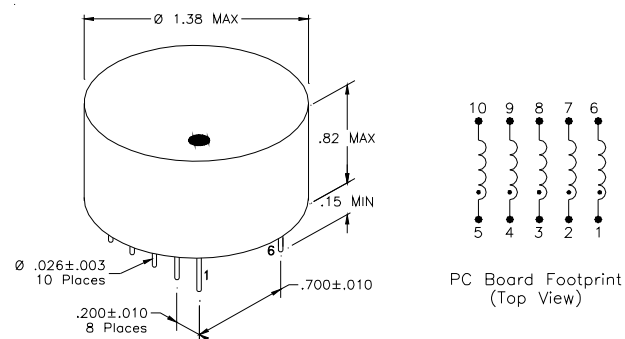
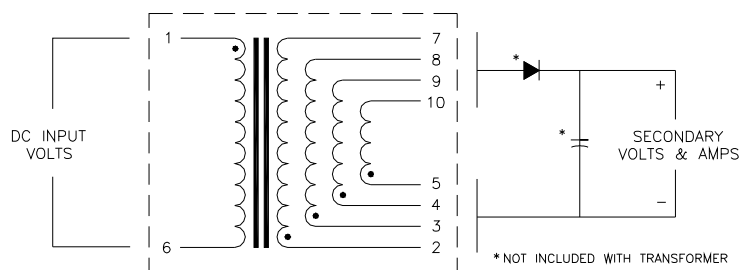
Data is for all secondaries connected in parallel. All voltages and currents are DC.

SCHEMATIC DIAGRAMS

EE17GT



EE20GT



NOTES

- EEGT Flyback Transformers are for discontinuous mode with a maximum duty ratio of 0.50.
- UL3101-1 compliant with dielectric withstanding voltage of 820 RMS, 60 Hz and also meet clearance and creepage requirements.
- Maximum operating temperature is 130°C.
- All mechanical dimensions are in inches.
- Pins are hot solder dipped.

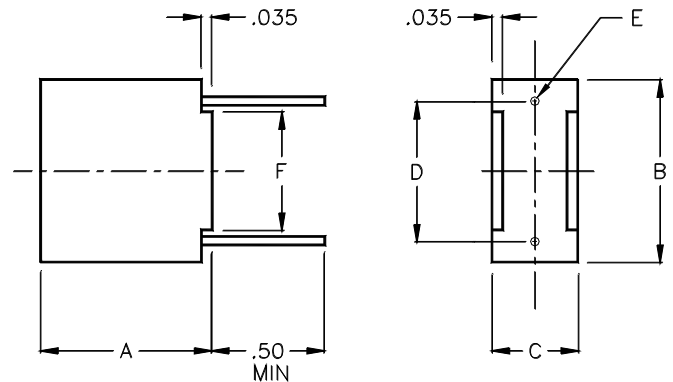
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	10-26-11		OFF-LINE FLYBACK TRANSFORMERS				
ENG.	JC	10-26-11	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BZ	10-26-11		.XX = ± .03		±5%	A	EEGT
REV.	A	10-26-11		.XXX = ± .010				

ELECTRICAL SPECIFICATIONS

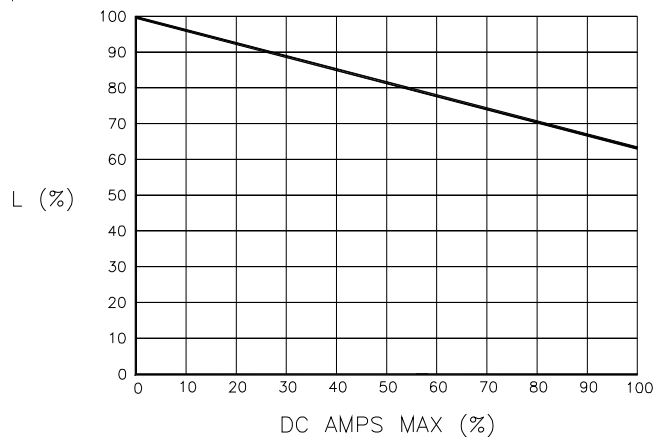
PART NUMBER	$L_0 \pm 10\%$ MILLI-H	DCR $\pm 15\%$ OHMS	DC MAX AMPS	SELF RES. FREQ. - kHz
EF30PL19	.0063	.0084	9.1	3300
EF30PL20	.010	.013	7.3	3600
EF30PL21	.016	.019	6.0	3800
EF30PL22	.025	.029	4.9	3900
EF30PL23	.040	.047	3.8	3800
EF30PL24	.063	.072	3.1	3400
EF30PL25	.10	.12	2.4	2900
EF30PL26	.16	.18	2.0	2200
EF30PL27	.25	.28	1.6	1600
EF30PL28	.40	.46	1.2	1200
EF30PL29	.63	.70	1.0	880
EF30PL30	1.0	1.2	.76	650
EF30PL31	1.6	1.8	.62	460
EF30PL32	2.5	2.8	.50	350
EF30PL33	4.0	4.6	.39	250
EF40PL18	.016	.012	10	6600
EF40PL19	.025	.018	7.9	6400
EF40PL20	.040	.028	6.2	4600
EF40PL21	.063	.043	4.9	3400
EF40PL22	.10	.066	3.9	2500
EF40PL23	.16	.10	3.1	1900
EF40PL24	.25	.16	2.5	1400
EF40PL25	.40	.26	2.0	980
EF40PL26	.63	.41	1.5	750
EF40PL27	1.0	.67	1.2	520
EF40PL28	1.6	1.1	1.0	390
EF40PL29	2.5	1.7	.79	290
EF40PL30	4.0	2.9	.63	230
EF40PL31	6.3	4.3	.50	180
EF40PL32	10	6.7	.40	130
EF50PL17	.025	.013	11	6100
EF50PL18	.040	.019	9.2	5600
EF50PL19	.063	.030	7.3	4400
EF50PL20	.10	.047	5.9	3800
EF50PL21	.16	.073	4.6	1500
EF50PL22	.25	.11	3.7	1100
EF50PL23	.40	.18	2.9	860
EF50PL24	.63	.29	2.3	620
EF50PL25	1.0	.46	1.8	440
EF50PL26	1.6	.74	1.4	350
EF50PL27	2.5	1.2	1.1	250
EF50PL28	4.0	1.9	.94	200
EF50PL29	6.3	3.0	.74	150
EF50PL30	10	4.9	.59	130
EF50PL31	16	7.8	.47	95
EF55PL16	.025	.011	13	5600
EF55PL17	.040	.016	10	4400
EF55PL18	.063	.024	8.6	5100
EF55PL19	.10	.037	6.8	4500
EF55PL20	.16	.058	5.5	3600
EF55PL21	.25	.091	4.3	1100
EF55PL22	.40	.14	3.4	790
EF55PL23	.63	.23	2.7	590
EF55PL24	1.0	.37	2.1	430
EF55PL25	1.6	.58	1.7	300
EF55PL26	2.5	.93	1.3	240
EF55PL27	4.0	1.5	1.1	180
EF55PL28	6.3	2.4	.87	140
EF55PL29	10	3.8	.69	100
EF55PL30	16	6.0	.55	83
EF58PL15	.040	.010	15	4700
EF58PL16	.063	.016	12	4200
EF58PL17	.10	.024	9.8	3500
EF58PL18	.16	.038	7.9	3100
EF58PL19	.25	.060	6.2	2300
EF58PL20	.40	.096	4.9	760
EF58PL21	.63	.15	3.9	550
EF58PL22	1.0	.24	3.1	410
EF58PL23	1.6	.38	2.4	310
EF58PL24	2.5	.61	1.9	220
EF58PL25	4.0	.98	1.5	160
EF58PL26	6.3	1.6	1.2	130
EF58PL27	10	2.5	.99	92
EF58PL28	16	4.1	.78	72
EF58PL29	25	6.0	.63	56

MECHANICAL SPECIFICATIONS

SIZE	A MAX	B MAX	C MAX	D $\pm .01$	E $\pm .003$	F $\pm .01$	WT. (g)
EF30	.8	.85	.40	.65	.040	.55	8
EF40	1.0	1.06	.50	.80	.040	.70	16
EF50	1.2	1.25	.55	1.00	.050	.80	29
EF55	1.3	1.40	.65	1.15	.050	1.00	41
EF58	1.5	1.65	.85	1.35	.064	1.20	74



INDUCTANCE WITH DC



NOTES

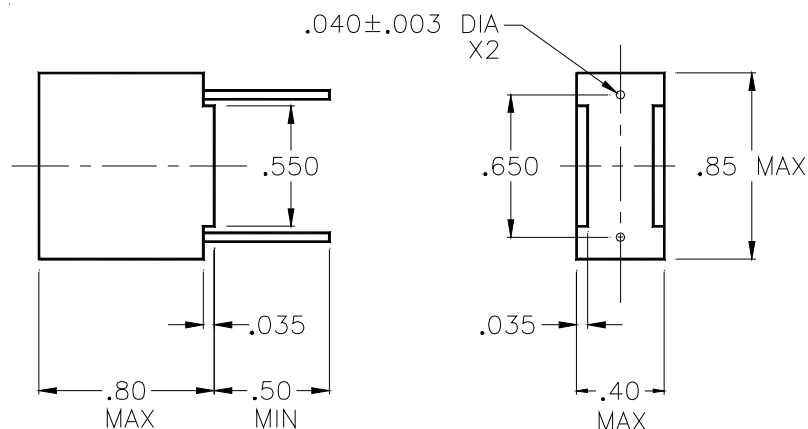
1. Initial inductance (L_0) is measured at 1 KHz.
2. DC Amps maximum rating is for a 50°C rise.
3. Self-Resonant Frequency is typical and for reference only.
4. For very low values of L & DCR, measure adjacent to case.
5. Packaging: Epoxy encapsulated.
6. Designed to meet MIL-PRF-27 Grade 5, Class S (130° C).
7. Pins are tinned copper.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	4-25-11		TOROIDAL CHOKES - HIGH TEMP. IRON POWDER				
ENG.	JC	4-25-11						
Q.A.	BT	4-25-11	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. EFPL
REV.	D	4-25-11						

ELECTRICAL SPECIFICATIONS

PART NUMBER	L +15 -10% MICRO - H	DCR ±15% MILLI - OHMS	DC AMPS	SELF RES. FREQ. - MHz
EF30TL4	1.00	2.0	10	310
EF30TL5	1.50	3.0	8.0	190
EF30TL6	2.00	3.3	6.0	140
EF30TL7	3.00	3.6	5.7	100
EF30TL8	4.00	4.0	5.0	80
EF30TL9	5.00	4.3	4.4	70
EF30TL10	6.00	4.6	4.0	60
EF30TL11	7.00	5.0	3.6	50
EF30TL12	8.50	5.5	3.3	45
EF30TL13	9.50	6.0	3.0	40
EF30TL14	11.0	6.4	2.8	35
EF30TL15	13.0	6.7	2.6	32
EF30TL16	14.5	7.0	2.5	30
EF30TL17	16.0	7.5	2.4	24

MECHANICAL SPECIFICATIONS



NOTES

1. Initial inductance is measured at 30 mV, 100 kHz.
2. DC Amps rating is for an approximately 20% inductance roll-off.
3. Self-Resonant Frequency is typical and for reference only.
4. For very low values of L and DCR, measure adjacent to case.
5. Packaging: Epoxy encapsulated.
6. Designed to meet MIL-PRF-27 Grade 5, Class S (130° C).
7. Pins are tinned copper.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	2-25-10		TOROIDAL CHOKES - IRON POWDER 1-16 µH, 10-2.4 ADC				
ENG.	JC	2-25-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	2-25-10		.XX = ± .03	±5%	±5%	A	EFTL
REV.	A	2-25-10		.XXX = ± .010				

APPLICATION FEATURES

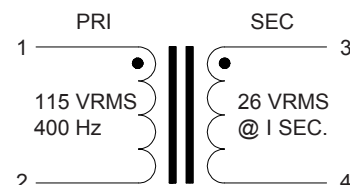
- Reliability** - Designed to meet MIL-PRF-27 Grade 5, Class S (130°C).
- Low Profile** - Toroidal core permits minimum height and weight for rated power.
- Flexibility** - Through-holes permit terminal side to be mounted against or opposite mounting surfaces.
- High Efficiency** - Toroidal tape core permits design at high flux density resulting in minimum core and copper losses.



ELECTRICAL SPECIFICATIONS

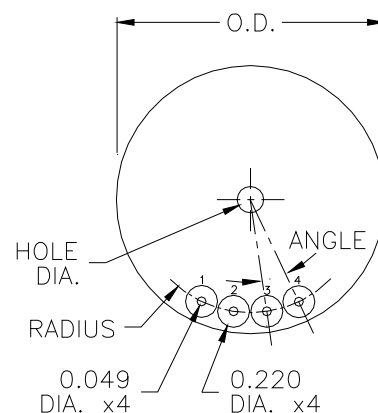
P/N	POWER V-A	I SEC. AMPS	REG. PERCENT	EFF. PERCENT	T.R. $\pm 2\%$ PRI:SEC	RESISTANCE - $\Omega \pm 10\%$	
						PRI	SEC
EG50PT30	10	0.4	11	89	0.251	50	3.5
EG75PT23	31	1.2	3.7	96	0.236	6.4	0.44
EG100PT20	62	2.4	2.4	96	0.232	1.7	0.17
EG125PT17	125	4.8	4.0	95	0.229	0.62	0.087

SCHEMATIC



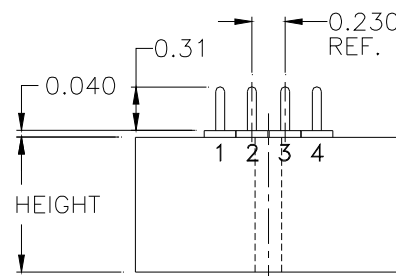
DESIGN FEATURES

- Extended solid-pin terminals. This unique MCE design feature provides multiple values:
 - Susceptibility of internal solder joint to heating at time of external connection is minimized due to the long distance the heat must travel.
 - Unit contains only one solder connection per terminal instead of the conventional two for improved reliability.
 - Manufacturing method positions coil leads adjacent to terminals thus minimizing length of coil lead in plastic and eliminates need for flex leads.
 - Coil lead is mechanically wrapped around terminal and solder connection is exposed during assembly for inspection.
 - Terminals are precision located for use in printed circuit boards.
- Encapsulation cup is high-temperature glass-filled for physical stability.
- Epoxy encapsulation material is resistant to thermal and mechanical stress.



MECHANICAL SPECIFICATIONS

P/N	DIMENSIONS			TERMINAL LOCATION		WT.
	O.D. MAX	HEIGHT MAX	HOLE DIA.	RADIUS	ANGLE	GRAMS
EG50PT30	1.36	0.63	0.140	0.55	24.0°	40
EG75PT23	2.01	0.80	0.140	0.87	15.2°	120
EG100PT20	2.62	0.98	0.140	1.17	11.3°	250
EG125PT17	3.27	1.30	0.166	1.47	9.0°	540



NOTES

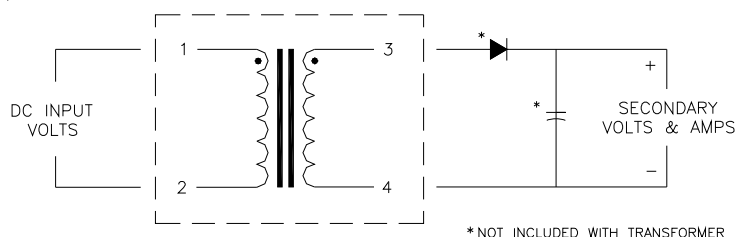
- Power (V-A) and secondary current (I) are based upon a temperature rise of 30°C above ambient.
- Dielectric Withstanding Voltage is 500 VRMS, 60 Hz from primary to secondary.
- Other voltages available as modified standard parts. Contact an MCE Application Engineer for further information.
- If the terminals are inserted into a PC board, a 0.080 inch thick stand off washer is required to level the part. Add a 'W' to the end of the part number to include the washer as a separate item in the shipment.

	INIT.	DATE	TOLERANCES	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478		
PROD.	JAP	2-19-10	DECIMALS (IN.) .XX = ± 0.03 .XXX = ± 0.010 ANGLE = $\pm 0.5^\circ$			
ENG.	JC	2-19-10		115V : 26V, 400Hz TRANSFORMERS		
Q.A.	BT	2-19-10	CAGE 09349	DESCRIPTION ENCAPSULATED TYPE PARTS	SIZE A	DWG. NO. EGPT
REV.	C	2-19-10				

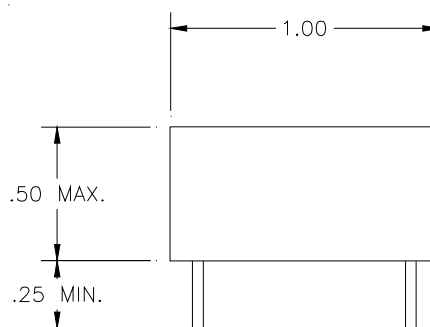
ELECTRICAL SPECIFICATIONS

PART NUMBER	FREQUENCY kHz	DC INPUT VOLTS	SECONDARY VOLTS	SECONDARY AMPS		PRIMARY L $\pm 10\%$ MICRO - H	PRIMARY LEAKAGE (TYP) MICRO - H	PRIMARY DCR $\pm 10\%$ MILLI - OHMS	SECONDARY DCR $\pm 10\%$ MILLI - OHMS
				MIN	MAX				
EJ50HT3	100	24 - 32	3.3	1.5	3.0	125	2.0	94	4.4
EJ50HT5	100	24 - 32	5.0	1.0	2.0	125	2.0	94	8.4
EJ50HT12	100	24 - 32	12	0.5	1.0	109	2.0	53	33

SCHEMATIC DIAGRAM

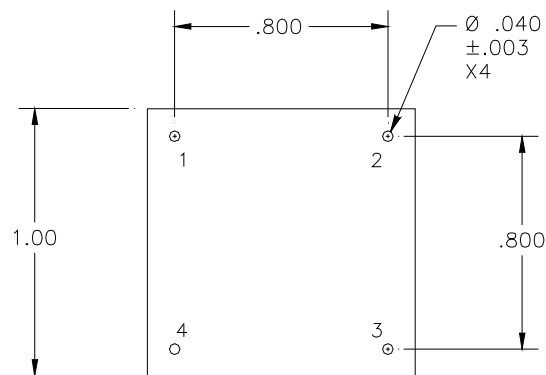


MECHANICAL SPECIFICATIONS



NOTES

1. EJHT Flyback Transformers are designed for continuous mode with a maximum duty ratio of 0.50.
2. Designed to meet MIL-PRF-27 Grade 5, Class S (130°C).
3. Dielectric Withstanding Voltage of 100 VRMS, 60 Hz winding-to-winding.
4. Pins are tinned copper.



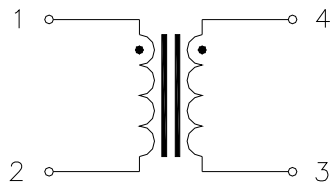
BOTTOM VIEW

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	<i>MP</i>	2-15-10		28 VOLT DC BUS FLYBACK TRANSFORMERS				
ENG.	<i>JC</i>	2-15-10						
Q.A.	<i>BT</i>	2-15-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
REV.				.XX = ± .03 .XXX = ± .010		±5%	A	EJHT

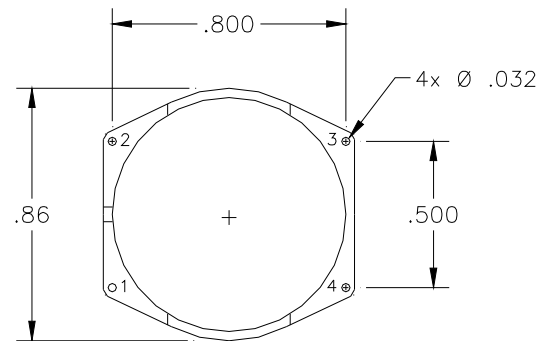
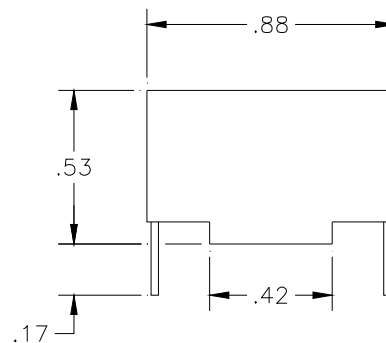
ELECTRICAL SPECIFICATIONS

PART NUMBER	mH - MIN EACH WNDG.	OHMS $\pm 15\%$ EACH WNDG.	AMPS MAX	mH - TYP LEAKAGE	kHz - TYP SELF RES.
EM18JL23	2.25	.039	3.6	8.0	830
EM18JL24	3.89	.064	2.8	12	570
EM18JL25	6.43	.11	2.1	21	390
EM18JL26	10.2	.17	1.7	33	300
EM18JL27	15.6	.26	1.4	51	240
EM18JL28	24.8	.41	1.1	78	180
EM18JL29	39.6	.65	.88	130	160
EM18JL30	62.2	1.0	.71	200	120
EM18JL31	99.1	1.6	.56	310	95
EM18JL32	160	2.5	.45	490	77

SCHEMATIC DIAGRAM



MECHANICAL SPECIFICATIONS



BOTTOM VIEW

NOTES

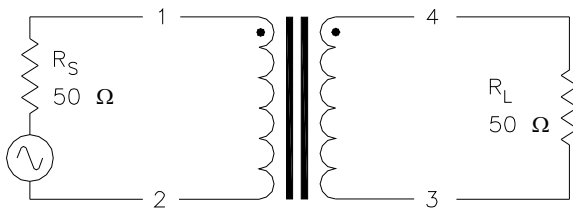
- Inductance is measured at 100 mVRMS, 1 kHz.
- Maximum Amps rating (AC or DC) is for a 50°C rise.
- Maximum operating temperature is 130°C.
- Self Resonant Frequency is for one winding only.
- Typical Capacitance between windings is 10 pF.
- Dielectric Withstanding Voltage is 1500 VDC, 15 μ A MAX leakage from winding-to-winding.
- Pins are hot solder dipped.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	1-19-10		COMMON MODE CHOKES - POT CORE				
ENG.	JC	1-19-10						
Q.A.	BT	1-19-10	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
REV.				.XX = $\pm$.03 .XXX = $\pm$.010	$\pm 5\%$	$\pm 5\%$	A	EM18JL

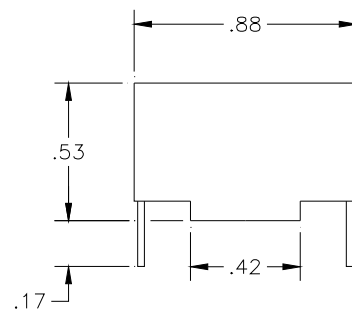
ELECTRICAL SPECIFICATIONS

T/R&Ø	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 10\%$
DCR		(1-2) ref.	1.000	.070
		(4-3)	1.000 Ø	.077
L (1-2)	-	26 μH $^{+30\%}_{-20\%}$ at 50 mVRMS, 30 kHz.		
C (1-2)-to-(4-3)	-	13 pF Typical at 5 VRMS, 100 kHz.		
Distributive C (1-2)	-	2 pF Typical at 5 VRMS, 100 kHz.		
Self Res. Freq.	-	22 MHz Typical.		

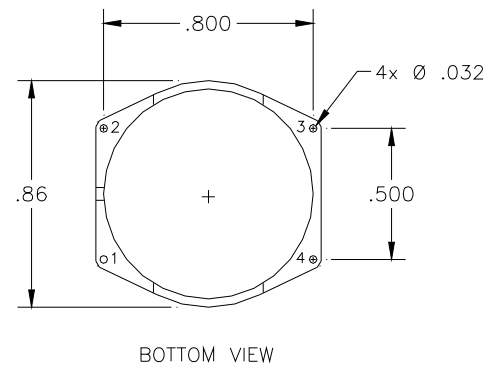
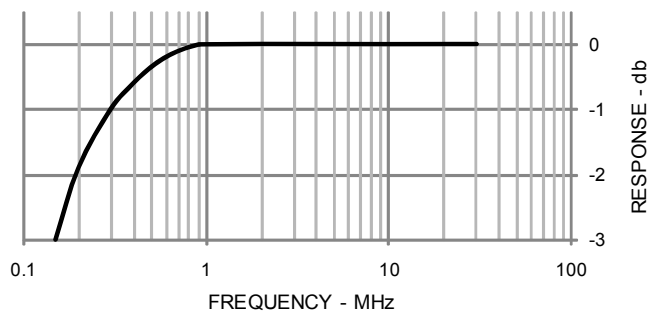
SCHEMATIC DIAGRAM



MECHANICAL SPECIFICATIONS



FREQUENCY RESPONSE



NOTES

1. High frequency roll-off will depend on total parallel capacitance including load. MCE can supply a sample part to determine this for the specific application. If the source impedance is low, both roll-offs will be extended.
2. Designed to meet MIL-PRF-27 Grade 5, Class S (130°C).
3. Pins are hot solder dipped.

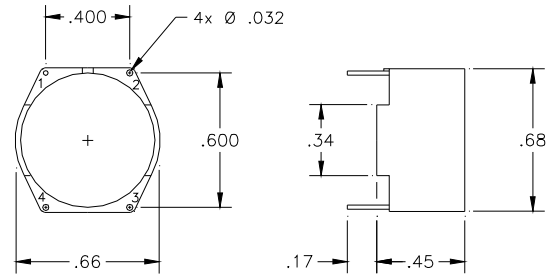
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	JAP	8-31-12		50 Ω - MHz WIDEBAND ISOLATION TRANSFORMER			
ENG.	JC	8-31-12					
Q.A.	BT	8-31-12	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.) .XX = $\pm$.03 .XXX = $\pm$.010	VOLTS $\pm 5\%$	FREQUENCY $\pm 5\%$	SIZE A
REV.	A	8-31-12		DWG. NO. EM18WT27			

ELECTRICAL SPECIFICATIONS

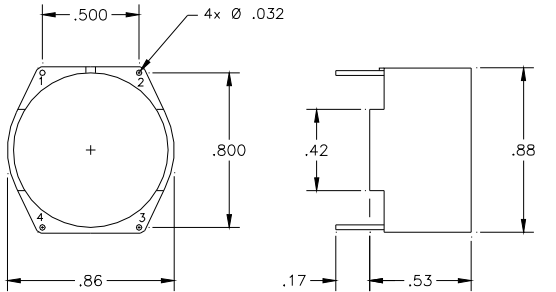
MECHANICAL SPECIFICATIONS

PART NUMBER	$L_o \pm 10\%$ MICRO - H	DCR $\pm 10\%$ MILLI - OHMS	DC AMPS MAX	SRF kHz REF
EM14EL21	14	15	6.0	>3000
EM14EL22	25	25	4.6	>3000
EM14EL23	40	40	3.7	>3000
EM14EL24	63	63	2.9	>3000
EM14EL25	100	100	2.3	>3000
EM14EL26	160	160	1.8	>3000
EM14EL27	250	250	1.4	2400
EM14EL28	400	400	1.1	1800
EM14EL29	630	630	.90	1400
EM14EL30	1000	1000	.71	1100
EM18EL20	25	20	6.3	>3000
EM18EL21	40	32	5.1	>3000
EM18EL22	63	50	4.0	>3000
EM18EL23	100	80	3.1	>3000
EM18EL24	160	130	2.5	>3000
EM18EL25	250	200	2.0	2400
EM18EL26	400	320	1.6	1800
EM18EL27	630	500	1.3	1400
EM18EL28	1000	800	1.0	1100
EM18EL29	1600	1300	.79	900
EM22EL19	63	23	6.3	>3000
EM22EL20	100	36	5.0	>3000
EM22EL21	160	57	4.0	3000
EM22EL22	250	90	3.1	2300
EM22EL23	400	140	2.5	1800
EM22EL24	630	230	2.0	1400
EM22EL25	1000	360	1.6	1100
EM22EL26	1600	570	1.3	900
EM22EL27	2500	900	1.0	700
EM22EL28	4000	1400	.79	550

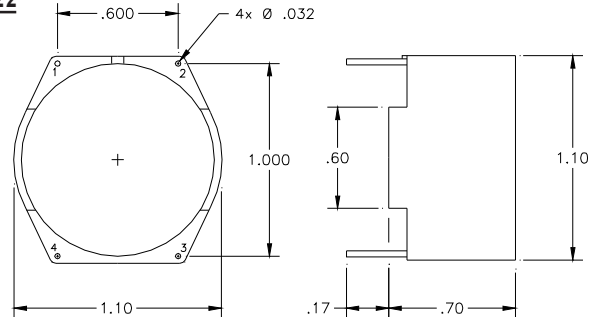
EM14



EM18



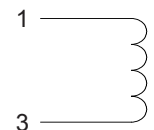
EM22



NOTES

1. Initial inductance (L_o) is measured at 100 mVRMS, 10 kHz.
2. DC Amps maximum rating is for a 50°C rise.
3. Designed to meet MIL-PRF-27 Grade 5, Class S (130° C).
4. Pins are hot solder dipped.

SCHEMATIC DIAGRAM

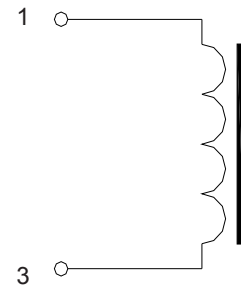


	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	3-30-10		ENCAPSULATED POT CORE CHOKES				
ENG.	JC	3-30-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	3-30-10		.XX = ± .03	±5%	±5%	A	EMEL
REV.	A	3-30-10		.XXX = ± .010				

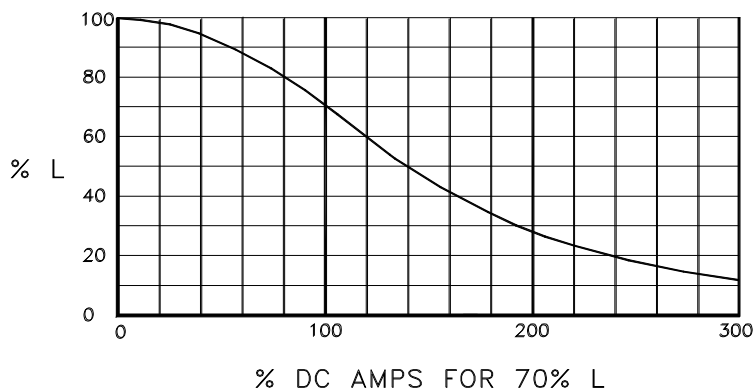
ELECTRICAL SPECIFICATIONS

PART NUMBER	$L_0 \pm 15\% -10\%$ MILLI-H	DCR $\pm 15\%$ OHMS	DC AMPS FOR 70% L	MAX DC AMPS FOR 50°C RISE	SELF RES. FREQ.-kHz
EM40HL23	.40	.095	1.2	3.5	1500
EM40HL24	.63	.15	.96	2.8	1100
EM40HL25	1.0	.24	.76	2.2	840
EM40HL26	1.6	.38	.60	1.8	630
EM40HL27	2.5	.61	.48	1.4	470
EM40HL28	4.0	.97	.38	1.1	350
EM40HL29	6.3	1.5	.30	.90	260
EM40HL30	10	2.5	.24	.70	200
EM40HL31	16	3.9	.19	.56	150
EM40HL32	25	6.2	.15	.44	110
EM40HL33	40	9.8	.12	.35	84
EM40HL34	63	15	.10	.28	60

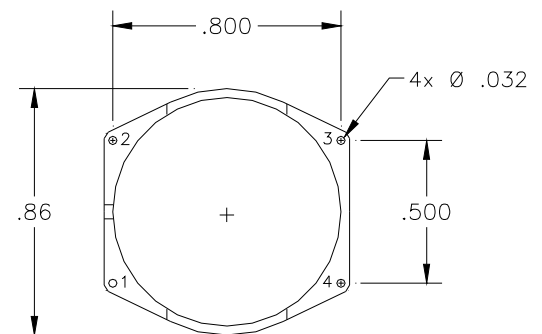
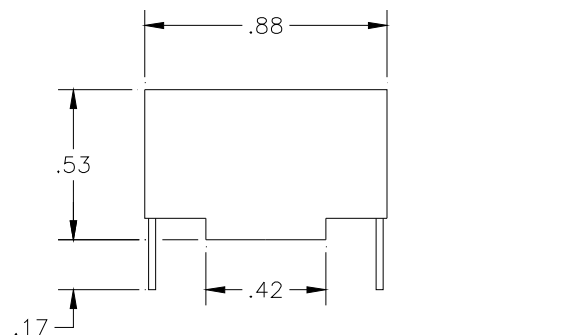
SCHEMATIC DIAGRAM



INDUCTANCE WITH DC



MECHANICAL SPECIFICATIONS



BOTTOM VIEW

NOTES

- Initial inductance (L_0) is measured at 1 KHz.
- DC Amps maximum rating is DC and RMS AC combined for a 50°C rise at an ambient of 20°C and with no heat sink.
- Designed to meet MIL-PRF-27 Grade 5, Class S(130°C).
- Self-Resonant Frequency is typical and for reference only.
- For very low values of L & DCR, measure adjacent to case.
- Pins are tinned copper.

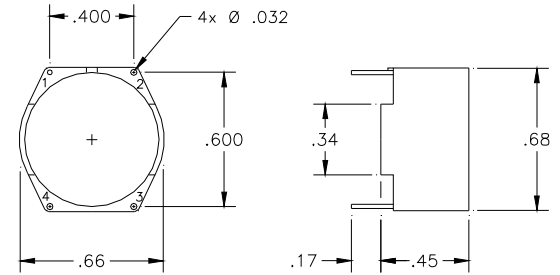
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	2-12-10		TOROIDAL SWINGING CHOKES - NICKEL POWDER				
ENG.	JC	2-12-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	B7	2-12-10		.XX = ± .03	±5%	±5%	A	EMHL
REV.				.XXX = ± .010				

ELECTRICAL SPECIFICATIONS

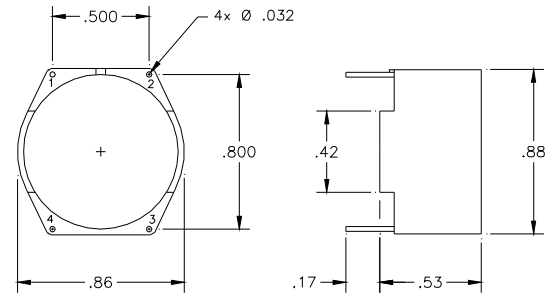
PART NUMBER	L MILLI H - MIN EA. WNDG.	DCR OHMS $\pm 15\%$ EA. WNDG.	AMPS MAX	SELF RES. kHz - TYP
EM14JL24	.97	.030	3.7	1400
EM14JL25	1.5	.047	2.9	1000
EM14JL26	2.6	.075	2.3	710
EM14JL27	3.9	.11	1.9	570
EM14JL28	6.3	.18	1.5	460
EM18JL23	2.25	.039	3.6	830
EM18JL24	3.89	.064	2.8	570
EM18JL25	6.43	.11	2.1	390
EM18JL26	10.2	.17	1.7	300
EM18JL27	15.6	.26	1.4	240
EM18JL28	24.8	.41	1.1	180
EM18JL29	39.6	.65	.88	160
EM18JL30	62.2	1.0	.71	120
EM18JL31	99.1	1.6	.56	95
EM18JL32	158	2.5	.45	77
EM38JL20	.52	.009	9.5	1400
EM38JL21	.80	.014	7.5	1300
EM38JL22	1.40	.022	6.0	1100
EM38JL23	2.10	.034	4.8	910

MECHANICAL SPECIFICATIONS

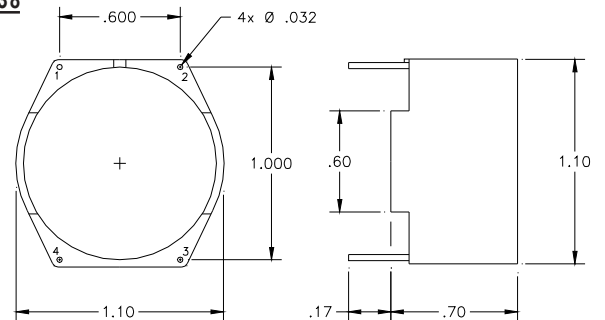
EM14



EM18



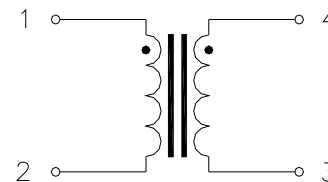
EM38



NOTES

- Inductance is measured at 100 mVRMS, 1 kHz.
- Typical nominal inductance is 20% higher than the L MIN.
- Self Resonant Frequency is for one winding only.
- Maximum Amps rating (AC or DC) is for a 50°C rise.
- Dielectric Withstanding Voltage is 1500 VDC, 15 μ A MAX leakage from winding-to-winding.
- Impedance vs. Frequency data available upon request.
- Designed to meet MIL-PRF-27 Grade 5, Class R (105° C).
- Pins are hot solder dipped.
- Labeled dot on top surface indicates pin #1. (top view not shown)

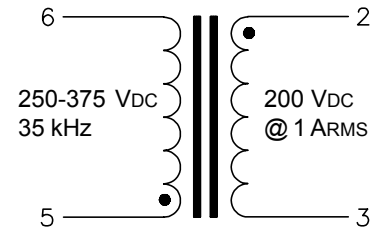
SCHEMATIC DIAGRAM



	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	3-23-11		COMMON MODE CHOKES - FERRITE				
ENG.	JC	3-23-11	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	3-23-11		.XX = ± .03	±5%	±5%	A	EMJL
REV.	D	3-23-11		.XXX = ± .010				

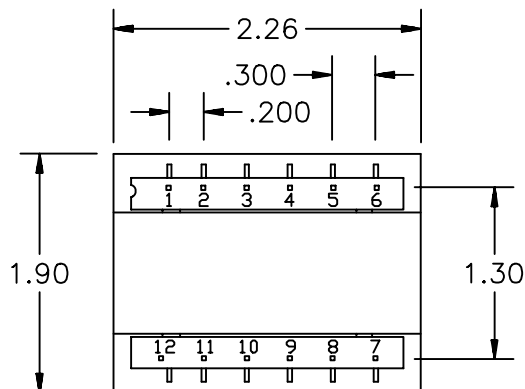
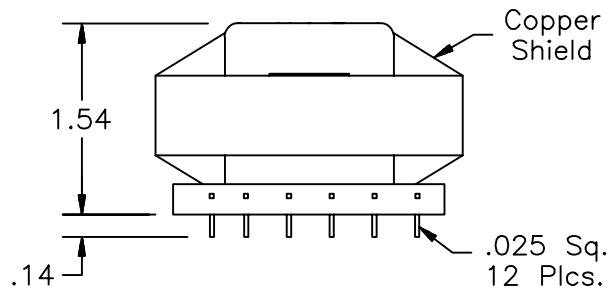
ELECTRICAL SPECIFICATIONS

T/R & Ø	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 20\%$
DCR		(5-6)	1.00 (ref.)	0.090
		(2-3)	1.19 Ø	0.12
L (5-6)	-	610 $\mu\text{H} \pm 10\%$ at 100 mVrms, 10 KHz.		
Duty Ratio	-	0.38 MAX.		
SCL (5-6)	-	15 μH MAX at 50 mVrms, 30 KHz with (2-3) shorted.		
DWV	-	25 μA MAX leakage at 2500 VDC between 2&5.		



MECHANICAL SPECIFICATIONS

Material - Class B (130°C).



	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. 			
PROD.		4-5-06		DISCONTINUOUS FLYBACK TRANSFORMER			
ENG.			TEST CONDITION 20° ± 5° C	DECIMALS .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
Q.A.							DWG. NO.
REV.							EXAMPLE

ELECTRICAL SPECIFICATIONS

MCE FL P/N	L - ±25% HENRIES	E-RMS, 60Hz VOLTS	I - DC mAmps	R - ±20% OHMS	L - MIN HENRIES	MCE NL P/N
25FL20	.00083	.240	2040	.090	.0017	25NL20
25FL21	.0013	.310	1620	.15	.0027	25NL21
25FL22	.0021	.385	1280	.23	.0044	25NL22
25FL23	.0033	.485	1020	.36	.0069	25NL23
25FL24	.0053	.60	808	.59	.011	25NL24
25FL25	.0083	.80	641	.91	.017	25NL25
25FL26	.013	1.00	508	1.4	.028	25NL26
25FL27	.021	1.25	403	2.2	.044	25NL27
25FL28	.033	1.55	320	3.5	.070	25NL28
25FL29	.053	1.95	253	5.4	.11	25NL29
25FL30	.083	2.45	201	8.7	.18	25NL30
25FL31	.13	3.10	159	14	.28	25NL31
25FL32	.21	3.90	126	22	.45	25NL32
25FL33	.33	4.95	100	36	.71	25NL33
25FL34	.53	6.0	80	57	1.1	25NL34
25FL35	.83	8.0	63	89	1.8	25NL35
25FL36	1.3	10.0	50	140	2.9	25NL36
25FL37	2.1	12.5	40	220	4.6	25NL37
25FL38	3.3	16.0	31	360	7.2	25NL38
25FL39	5.3	20.0	25	570	11	25NL39
37FL18	.0010	.465	3250	.059	.0019	37NL18
37FL19	.0016	.60	2580	.092	.0031	37NL19
37FL20	.0025	.75	2040	.15	.0048	37NL20
37FL21	.0040	.90	1620	.23	.0077	37NL21
37FL22	.0063	1.15	1280	.36	.012	37NL22
37FL23	.010	1.45	1020	.59	.019	37NL23
37FL24	.016	1.85	808	.93	.031	37NL24
37FL25	.025	2.35	641	1.5	.049	37NL25
37FL26	.040	2.95	508	2.3	.078	37NL26
37FL27	.063	3.70	403	3.5	.12	37NL27
37FL28	.10	4.70	320	5.8	.20	37NL28
37FL29	.16	6.0	253	9.2	.31	37NL29
37FL30	.25	7.5	201	15	.50	37NL30
37FL31	.40	9.5	159	23	.79	37NL31
37FL32	.63	12.0	126	37	1.3	37NL32
37FL33	1.0	15.0	100	58	2.0	37NL33
37FL34	1.6	19.0	80	92	3.2	37NL34
37FL35	2.5	24.0	63	150	5.1	37NL35
37FL36	4.0	30.0	50	230	8.0	37NL36
37FL37	6.3	38.0	40	380	13	37NL37
50FL17	.0021	1.00	4100	.066	.0027	50NL17
50FL18	.0033	1.25	3250	.11	.0043	50NL18
50FL19	.0052	1.55	2580	.17	.0068	50NL19
50FL20	.0083	1.95	2040	.26	.011	50NL20
50FL21	.013	2.45	1620	.41	.017	50NL21
50FL22	.021	3.10	1280	.66	.027	50NL22
50FL23	.033	3.90	1020	1.1	.043	50NL23
50FL24	.052	4.90	808	1.6	.068	50NL24
50FL25	.083	6.0	641	2.6	.11	50NL25
50FL26	.13	8.0	508	4.3	.17	50NL26
50FL27	.21	10.0	403	6.7	.28	50NL27
50FL28	.33	12.5	320	11	.44	50NL28
50FL29	.52	15.5	253	17	.70	50NL29
50FL30	.83	20.0	201	28	1.1	50NL30
50FL31	1.3	25.0	159	45	1.8	50NL31
50FL32	2.1	31.5	126	68	2.8	50NL32
50FL33	3.3	39.5	100	110	4.5	50NL33
50FL34	5.2	50	80	190	7.1	50NL34
50FL35	8.3	65	63	270	11	50NL35
50FL36	13	80	50	430	18	50NL36

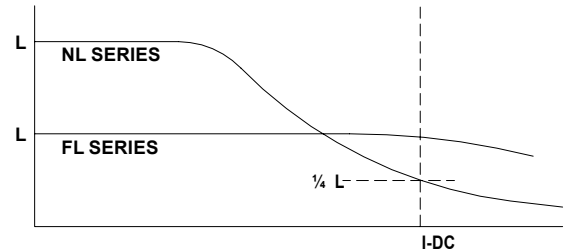
APPLICATION FEATURES

Miniature chokes, primarily for use in DC power-supply smoothing-filter applications, are offered in two series: (1) the linear FL SERIES and (2) the "swinging" NL SERIES.

The FL SERIES chokes are especially suited for requirements where the DC will be 50 to 100% of I-DC rated. They will provide the most inductance in this range.

The NL SERIES chokes are generally more suitable where the DC will vary between 10 to 100% of I-DC rated. The inductance at rated I-DC is approximately ¼ of the value at I-DC = 0.

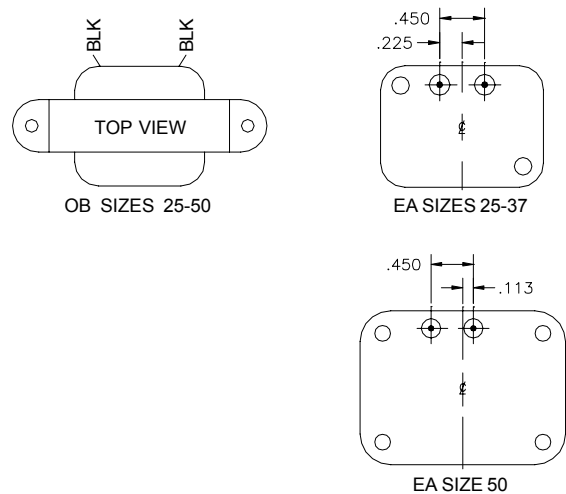
TYPICAL L VS I-DC CHARACTERISTICS



Both SERIES are listed by size in the tables of specifications. The V, I-DC, and R are the same for similar part numbers, only the inductance values and characteristics are different.

All parts are available in any of the MCE Miniature Line package options (OB, CA, EA etc.).

TERMINAL / LEAD LOCATION



NOTES

- The inductance values given are at the corresponding V-RMS 60 Hz voltages and I-DC = 0. For test purposes, inductance measurements can be made by impedance, or E-I method.
- All electrical data at 20°±5°C.
- Sizes 25 and 37 encapsulated parts (EA) have only 2 through holes.
- All OB type parts with part numbers ending with 15, 16, or 17 have self leads (solid) with sleeving.
- Specify complete part number, e.g. CA25FL20, OB37NL18, EA50FL17.

	INIT.	DATE	TOLERANCES DECIMALS (IN.) .XX = ± 0.03 .XXX = ± 0.010 VOLTS = ± 5%	MAGNETIC CIRCUIT ELEMENTS INC.		
PROD.	MP	4-6-06		DC FILTER CHOKES		
ENG.	JC	4-6-06				
Q.A.	BT	4-6-06	CAGE 09349	DESCRIPTION LAMINATION CORE TYPE	SIZE A	DWG. NO. FL/NL (25-50)
REV.						

ELECTRICAL SPECIFICATIONS

MCE FL P/N	L - ±25% HENRIES	E-RMS, 60Hz VOLTS	I - DC mAmps	R - ±20% OHMS	L - MIN HENRIES	MCE NL P/N
62FL16	.0023	1.40	5170	.059	.0035	62NL16
62FL17	.0036	1.75	4100	.093	.0056	62NL17
62FL18	.0058	2.20	3250	.14	.0087	62NL18
62FL19	.0091	2.75	2580	.22	.014	62NL19
62FL20	.015	3.50	2040	.35	.022	62NL20
62FL21	.023	4.40	1620	.56	.035	62NL21
62FL22	.036	5.5	1280	.89	.056	62NL22
62FL23	.058	7.0	1020	1.4	.088	62NL23
62FL24	.091	9.0	808	2.2	.14	62NL24
62FL25	.15	11.0	641	3.6	.22	62NL25
62FL26	.23	14.0	508	5.7	.36	62NL26
62FL27	.36	17.5	403	8.9	.57	62NL27
62FL28	.58	22.5	320	14	.90	62NL28
62FL29	.91	28.0	253	22	1.4	62NL29
62FL30	1.5	35.5	201	36	2.3	62NL30
62FL31	2.3	45	159	59	3.6	62NL31
62FL32	3.6	55	126	90	5.7	62NL32
62FL33	5.8	70	100	150	9.2	62NL33
62FL34	9.1	90	80	240	15	62NL34
62FL35	15	115	63	360	23	62NL35
75FL15	.0029	2.25	6510	.066	.0041	75NL15
75FL16	.0047	2.85	5170	.10	.0064	75NL16
75FL17	.0076	3.60	4100	.16	.010	75NL17
75FL18	.012	4.55	3250	.25	.016	75NL18
75FL19	.019	5.5	2580	.39	.026	75NL19
75FL20	.030	7.0	2040	.62	.041	75NL20
75FL21	.048	9.0	1620	1.0	.065	75NL21
75FL22	.076	11.5	1280	1.5	.10	75NL22
75FL23	.12	14.5	1020	2.5	.16	75NL23
75FL24	.19	18.0	808	4.0	.26	75NL24
75FL25	.30	23.0	641	6.2	.42	75NL25
75FL26	.48	29.0	508	9.9	.66	75NL26
75FL27	.76	36.5	403	16	1.1	75NL27
75FL28	1.2	46.0	320	25	1.7	75NL28
75FL29	1.9	60	253	39	2.7	75NL29
75FL30	3.0	75	201	64	4.2	75NL30
75FL31	4.8	90	159	100	6.7	75NL31
75FL32	7.6	115	126	160	11	75NL32
75FL33	12	145	100	260	17	75NL33
75FL34	19	185	80	420	27	75NL34
87FL15	.0073	5.1	6510	.12	.010	87NL15
87FL16	.012	6.4	5170	.19	.016	87NL16
87FL17	.018	8.1	4100	.30	.025	87NL17
87FL18	.029	10.2	3250	.47	.040	87NL18
87FL19	.046	12.8	2580	.74	.063	87NL19
87FL20	.073	16.2	2040	1.2	.10	87NL20
87FL21	.12	20.4	1620	1.8	.16	87NL21
87FL22	.18	25.7	1280	2.9	.26	87NL22
87FL23	.30	32.4	1020	4.6	.41	87NL23
87FL24	.47	40.5	808	7.3	.65	87NL24
87FL25	.74	51	641	12	1.0	87NL25
87FL26	1.2	64	508	19	1.7	87NL26
87FL27	1.8	81	403	30	2.6	87NL27
87FL28	3.0	102	320	47	4.2	87NL28
87FL29	4.7	128	253	74	6.5	87NL29
87FL30	7.4	162	201	120	11	87NL30
87FL31	12	204	159	190	17	87NL31
87FL32	18	257	126	300	26	87NL32
87FL33	30	324	100	480	42	87NL33
100FL15	.012	8.8	6510	.18	.016	100NL15
100FL16	.018	11.1	5170	.29	.026	100NL16
100FL17	.029	13.9	4100	.45	.041	100NL17
100FL18	.046	17.5	3250	.71	.066	100NL18
100FL19	.074	22.0	2580	1.1	.10	100NL19
100FL20	.12	27.7	2040	1.7	.16	100NL20
100FL21	.19	35.0	1620	2.7	.26	100NL21
100FL22	.30	44.0	1280	4.3	.42	100NL22
100FL23	.47	55.5	1020	6.9	.66	100NL23
100FL24	.74	70	808	11	1.1	100NL24
100FL25	1.2	88	641	17	1.7	100NL25
100FL26	1.9	111	508	28	2.7	100NL26
100FL27	3.0	139	403	45	4.2	100NL27
100FL28	4.8	175	320	73	6.8	100NL28
100FL29	7.5	220	253	110	11	100NL29
100FL30	12	277	201	190	17	100NL30
100FL31	19	350	159	290	28	100NL31
100FL32	30	440	126	450	42	100NL32

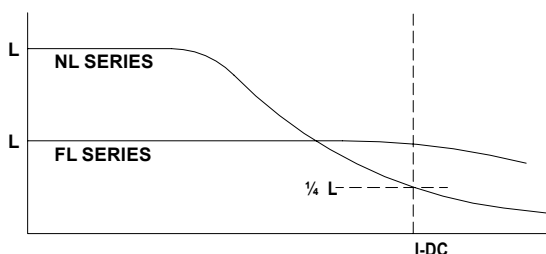
APPLICATION FEATURES

Miniature chokes, primarily for use in DC power-supply smoothing-filter applications, are offered in two series: (1) the linear FL SERIES and (2) the "swinging" NL SERIES.

The FL SERIES chokes are especially suited for requirements where the DC will be 50 to 100% of I-DC rated. They will provide the most inductance in this range.

The NL SERIES chokes are generally more suitable where the DC will vary between 10 to 100% of I-DC rated. The inductance at rated I-DC is approximately ¼ of the value at I-DC = 0.

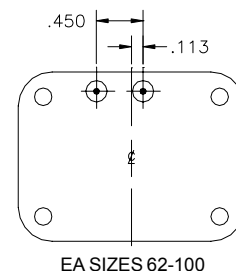
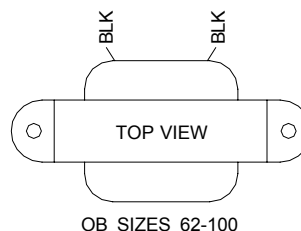
TYPICAL L VS I-DC CHARACTERISTICS



Both SERIES are listed by size in the tables of specifications. The V, I-DC, and R are the same for similar part numbers, only the inductance values and characteristics are different.

All parts are available in any of the MCE Miniature Line package options (OB, CA, EA etc.).

TERMINAL / LEAD LOCATION



NOTES

- The inductance values given are at the corresponding V-RMS 60 Hz voltages and I-DC = 0. For test purposes, inductance measurements can be made by impedance, or E-I method.
- All electrical data at 20°±5°C.
- All OB type parts with part numbers ending with 15, 16, or 17 have self leads (solid) with sleeving.
- Specify complete part number, e.g. CA62FL34, OB75NL25, EA100FL17.

	INIT.	DATE	TOLERANCES	MAGNETIC CIRCUIT ELEMENTS INC. 		
PROD.	<i>MP</i>	4-6-06	DECIMALS (IN.) .XX = ± 0.03 .XXX = ± 0.010			
ENG.	<i>JC</i>	4-6-06	VOLTS = ± 5%	DC FILTER CHOKES		
Q.A.	<i>BT</i>	4-6-06	CAGE 09349	DESCRIPTION LAMINATION CORE TYPE	SIZE A	DWG. NO. FL/NL (62-100)
REV.						

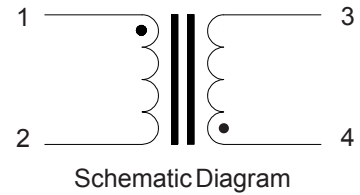
ELECTRICAL SPECIFICATIONS

L (1-2) or (4-3) - 130 μ H $\pm$ 10% at .1 VRMS, 10 kHz.

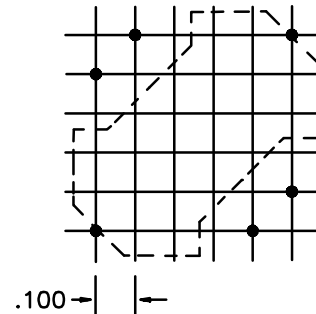
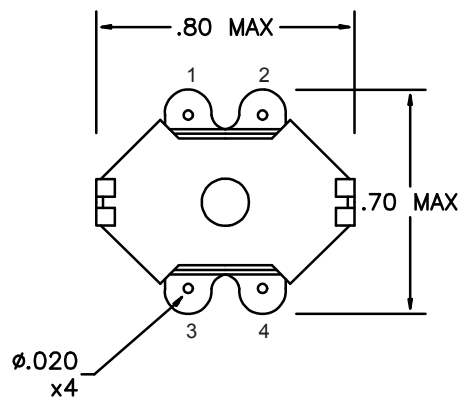
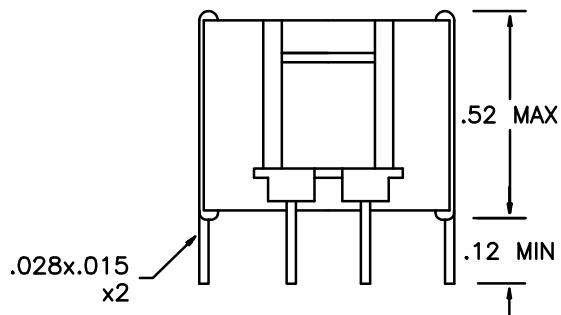
L (1-3) - 500 μ H $\pm$ 10% at .1 VRMS, 10 kHz
with 2 & 4 jumper.

L_{DC} (1-3) - 7% roll off TYP at 1 A DC.

Self Resonant Frequency - Greater than 2 MHz.



MECHANICAL SPECIFICATIONS



Bottom View

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	11-1-12		4 TERMINAL DC FILTER CHOKE				
ENG.	JC	11-1-12	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.) .XX = $\pm$.03 .XXX = $\pm$.010	VOLTS $\pm$ 5%	FREQUENCY $\pm$ 5%	SIZE A	DWG. NO. O-2331L1
Q.A.	CP	11-1-12						
REV.								

ELECTRICAL SPECIFICATIONS

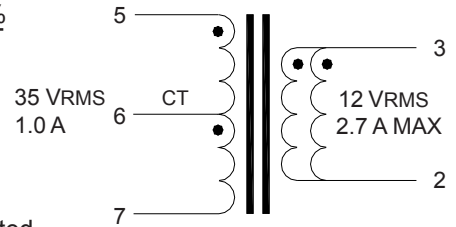
T/R & Ø	Winding	Turns Ratio ±3%	DCR Ω ±15%
DCR	(5-7) ref.	1.000	.500
	(5-6)	.500 Ø	.250
	(3-2)	.183 Ø	.044

L (5-6) or (6-7) - 2.5 mH at 100 mVRMS, 1 kHz.

Leakage L (5-6) or (6-7) - 2 µH TYP at 100 mVRMS, 1 MHz with 3&2 shorted.

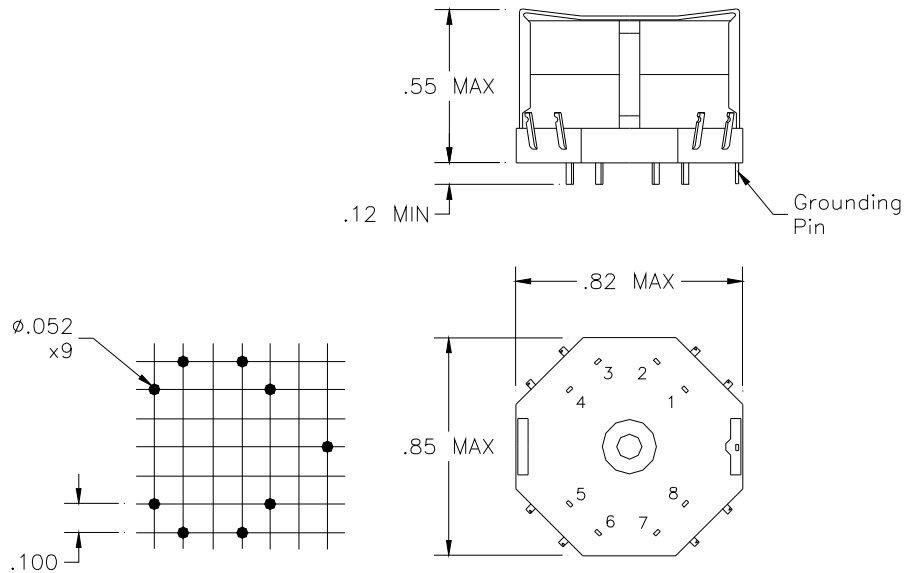
C (5-6) or (6-7)-to-(3-2) - 50 pF TYP at 5 VRMS, 100 kHz.

Dielectric Strength - 500 Vdc, 5 µA MAX leakage from 5-to-3.



Schematic Diagram

MECHANICAL SPECIFICATIONS



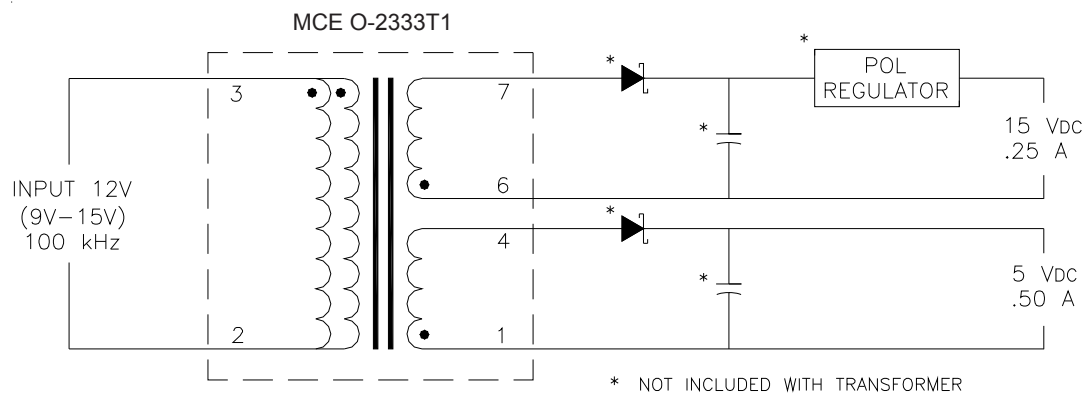
Bottom View

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	JAP	11-1-12		PUSH-PULL TRANSFORMER, 20 - 200 kHz				
ENG.	JC	11-1-12						
Q.A.	CP	11-1-12	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. O-2332T1
REV.								

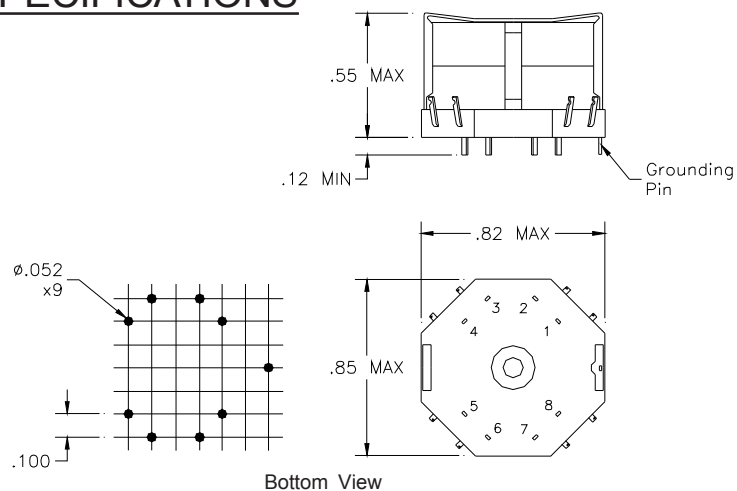
ELECTRICAL SPECIFICATIONS

T/R & Ø	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 15\%$
DCR		(3-2) ref.	1.00	.037
		(1-4)	1.36 Ø	.30
		(6-7)	5.00 Ø	1.1
L (3-2)	-	11.3 - 12.9 μH at 50 mVRMS, 30 kHz.		
Short Circuit L (3-2)	-	.340 μH TYP at 10 mVRMS, 300 kHz with 1,4,6,& 7 shorted.		
C	-	50 pF TYP at 5 VRMS, 100 kHz from 2&3-to-1,4,6,& 7.		
Duty Ratio	-	.50 MAX (Discontinuous Mode).		
f	-	100 kHz.		
Dielectric Strength	-	500 VDC, 5 μA MAX leakage from 3-to-1&6.		

SCHEMATIC DIAGRAM



MECHANICAL SPECIFICATIONS



	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	JAP	11-2-12						
ENG.	JC	11-2-12		FLYBACK TRANSFORMER 12V TO 5V & 15V, 6.25 W				
Q.A.	CP	11-2-12	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. O-2333T1
REV.								

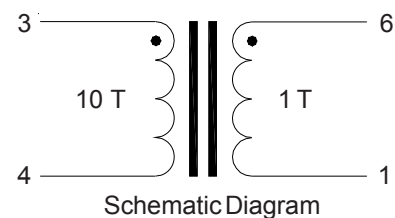
ELECTRICAL SPECIFICATIONS

T/R & Ø	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 15\%$
DCR	-	(3-4) ref.	1.000	.059
	-	(6-1)	.100 Ø	.0093

L (3-4) - 200 μ H MIN (300 μ H TYP) at 100 mVRMS, 10 kHz.

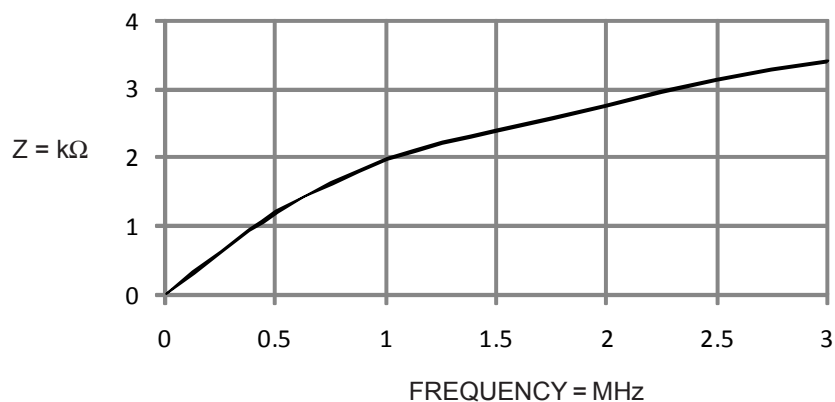
L (6-1) - 2 μ H MIN (3 μ H TYP) at 30 mVRMS, 100 kHz.

C (3-4) to (6-1) - 3.5 pF MAX (2.5 pF TYP) at 5 VRMS, 100 kHz.

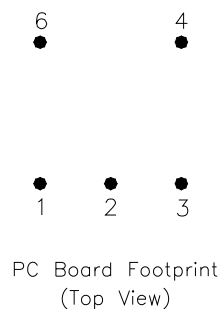
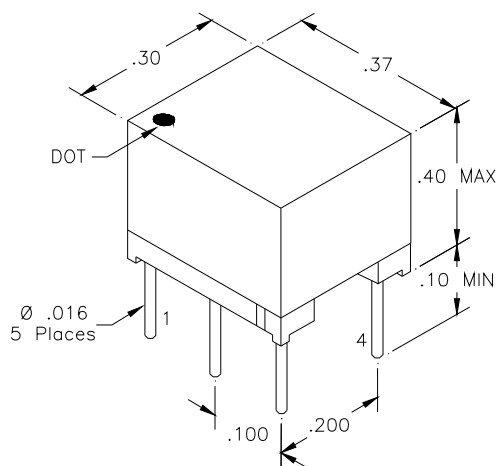


Note: This part can be used as a current transformer with the 1 turn winding as the primary.

IMPEDANCE (k Ω) vs. FREQUENCY (MHz) at 200 mVRMS



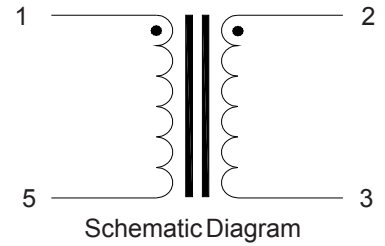
MECHANICAL SPECIFICATIONS



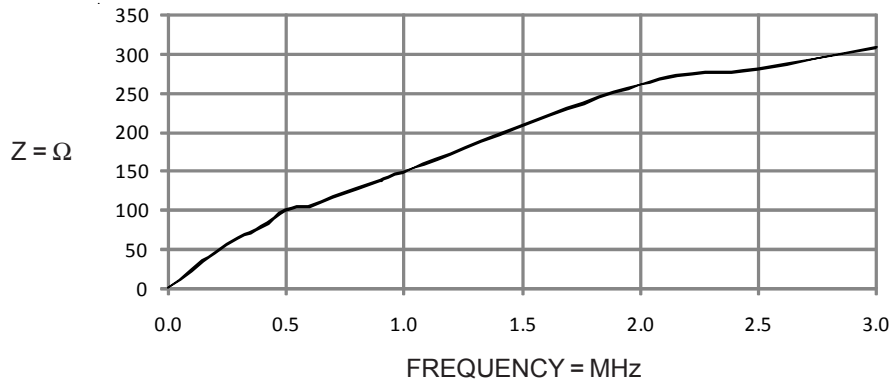
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	JP	11-2-12		RF TRANSFORMER				
ENG.	JC	11-2-12	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.) .XX = $\pm$.03 .XXX = $\pm$.010	VOLTS $\pm 5\%$	FREQUENCY $\pm 5\%$	SIZE A	DWG. NO. O-2334T1
Q.A.	CP	11-2-12						
REV.								

ELECTRICAL SPECIFICATIONS

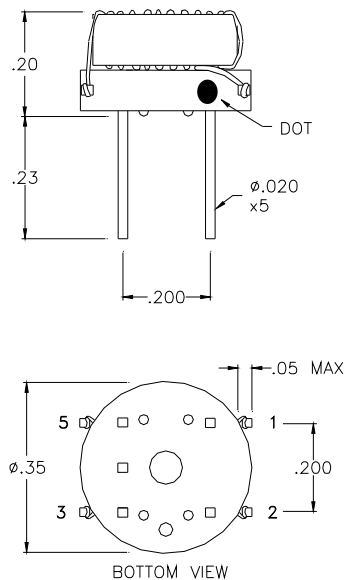
T/R	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 10\%$
DCR	-	(1-5) ref.	1.000	.070
	-	(2-3)	1.000	.070
L (1-5) or (2-3)	-	32 $\mu\text{H} \pm 20\%$ at 1 VRMS, 500 kHz.		
L (1-5)	-	80 nH Typical at .2 VRMS, 1 MHz with (2-3) shorted.		
C	-	6 pF Typical at 5 VRMS, 500 kHz between (1-5) and (2-3).		



IMPEDANCE (Ω) vs. FREQUENCY (MHz) at 5 VRMS



MECHANICAL SPECIFICATIONS

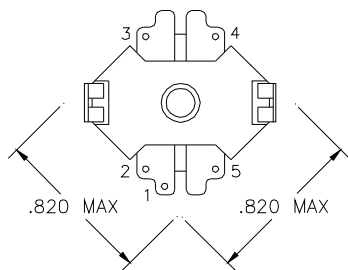
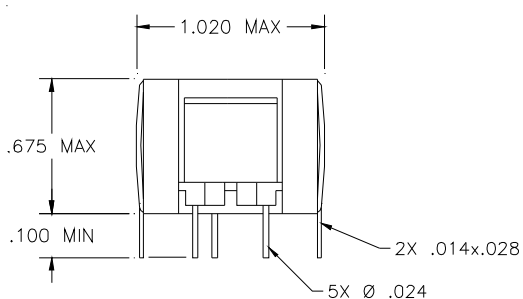


	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	JP	11-2-12		RF ISOLATION TRANSFORMER 0.5 - 3 MHz				
ENG.	JC	11-2-12						
Q.A.	CP	11-2-12	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.) .XX = $\pm .03$.XXX = $\pm .010$	VOLTS $\pm 5\%$	FREQUENCY $\pm 5\%$	SIZE A	DWG. NO. O-2335T1
REV.								

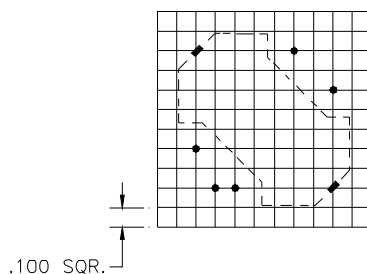
ELECTRICAL SPECIFICATIONS

COMMON MODE CHOKE (each winding)			DC FILTER CHOKE (windings connected in series)			
L - $\pm 10\%$	RMS - MAX	R - $\pm 15\%$	L - $\pm 10\%$	DC - MAX	R - $\pm 15\%$	SELF RES.
83	1.5	.044	330	1.5	.087	3.1

MECHANICAL SPECIFICATIONS

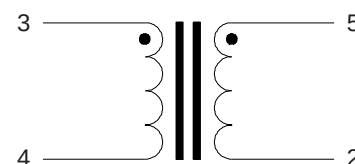


BOTTOM VIEW



PCB FOOTPRINT
(TOP VIEW)

SCHEMATIC



NOTES

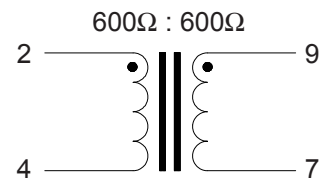
1. Inductance measured at 100 mV, 10 kHz.
2. MAX Amps rating (AC or DC) is for a 40°C rise.
3. Maximum operating temperature is 130°C.
4. All electrical data at 20°±5°C.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	11-2-12		COMMON MODE or DC FILTER - CHOKE - RF				
ENG.	JC	11-2-12						
Q.A.	CP	11-2-12	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. O-2336L1
REV.								

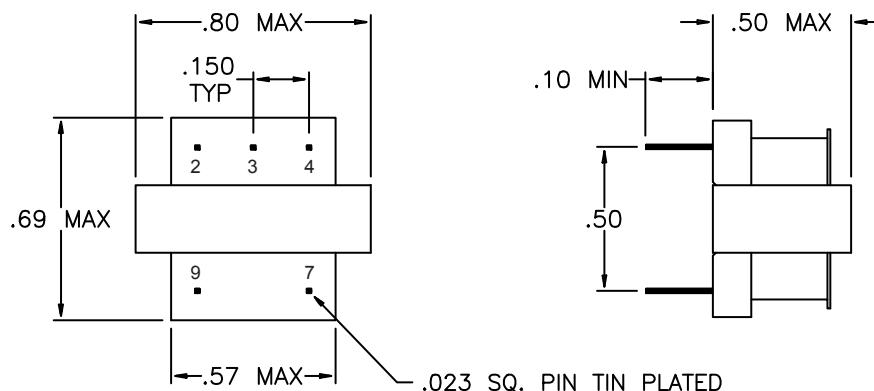
ELECTRICAL SPECIFICATIONS

T/R & Ø	-	Winding	Turns Ratio	DCR Ω
DCR	-	(2-4) ref.	1.000	92 - 125
	-	(9-7)	.98 - 1.02 Ø	126 - 171
Inductance (2-4)	-	180 mH - 380 mH at 2.0 VRMS, 1.0 kHz.		
Capacitance 2-to-9	-	40 pF MAX.		
Dielectric Strength	-	1800 VDC, 18 μ A MAX leakage from 2-to-9.		
Unbalanced DC	-	65 mA MAX.		
Crosstalk	-	-65 dB MIN at 0.75 inch board spacing.		
Insertion Loss	-	-6 dB MAX.		
Harmonic Distortion	-	0.5 % MAX.		
Frequency Response	-	± 3 dB, 300 Hz-to-25 kHz at 6 mW and 65 mAdc.		

SCHEMATIC DIAGRAM



MECHANICAL SPECIFICATIONS



BOTTOM VIEW

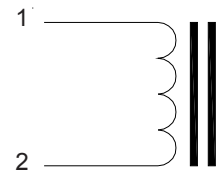
	INIT.	DATE	CAGE	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	MP	6-26-13	09349	600 Ω TELEPHONE COUPLING TRANSFORMER WITH DC			
ENG.	JC	6-26-13					
Q.A.	CP	6-26-13	TEST CONDITION	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE
REV.	B	6-26-13	20° $\pm$ 5° C	.XX = $\pm$.03	$\pm 5\%$	$\pm 5\%$	A
				.XXX = $\pm$.010			
						DWG. NO.	
						MCE	O-1408T1A

ELECTRICAL SPECIFICATIONS

DCR - $.06 \Omega \pm 10\%$

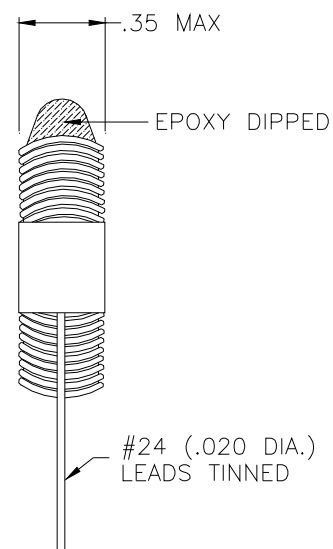
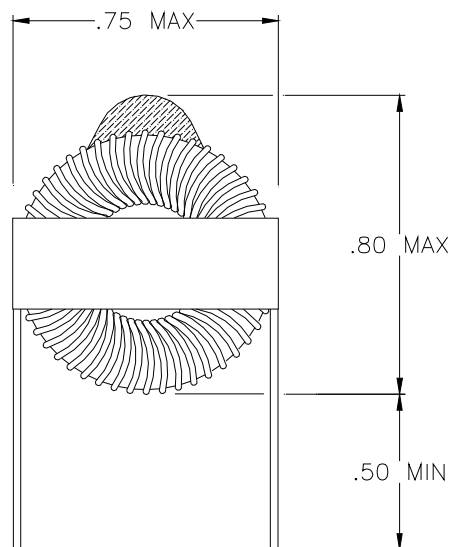
L(1-2) - $90 \mu\text{H} \pm 10\%$ at 50 mVRMS, 30 kHz.

L_{DC} (1-2) - $45 \mu\text{H}$ MIN with 3A DC at 50 mVRMS, 30 kHz.



Schematic Diagram

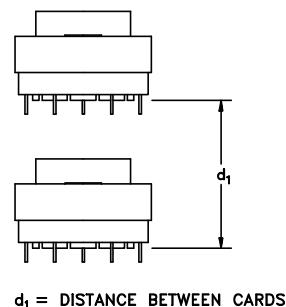
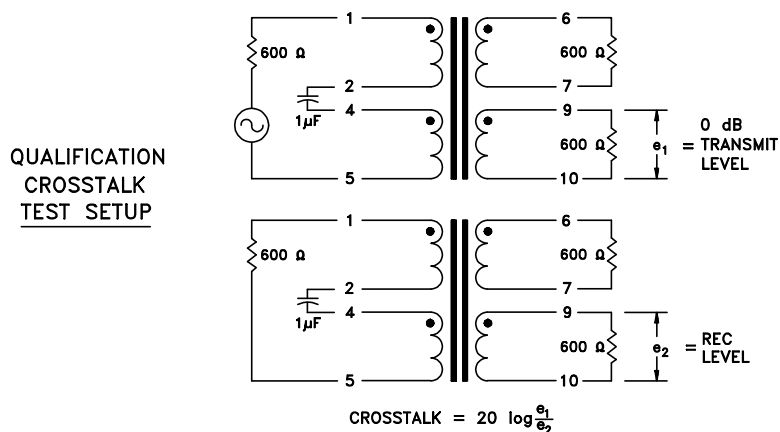
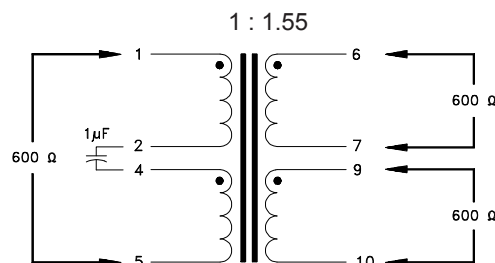
MECHANICAL SPECIFICATIONS



	INIT.	DATE	CAGE	MAGNETIC CIRCUIT ELEMENTS INC.			
PROD.	<i>MP</i>	11-16-09	09349	www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
ENG.	JC	11-16-09		TOROIDAL CHOKE 45μH MIN at 3A DC			
Q.A.	<i>B.T.</i>	11-16-09	TEST CONDITION 20° ±5C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.	A	11-16-09					DWG. NO. MCE O-1472L2

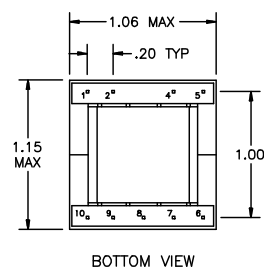
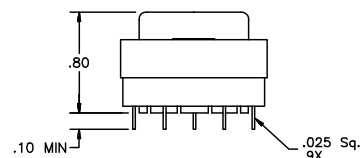
ELECTRICAL SPECIFICATIONS

T/R & Ø	-	WINDING	URNS RATIO ±2%	DCR Ω ±15%
DCR	-	(9-10) ref.	1.000	68
	-	(6-7)	1.000	68
	-	(4-5)	.645	34
	-	(1-2)	.645	34
L _{DC} (1-5)	-	500 mH MIN with 30 mADC at 0.8 VRMS, 250 Hz with 2&4 jumpered.		
DWV	-	1800 VDC from 1&5-to-6&10. 100% testing required I.A.W. UL60950-01. 18 µA MAX leakage current.		
Frequency Response	-	±1 dB from 300 Hz to 4 KHz		
Qualification Crosstalk Test	-	≥72 dB at 250 Hz with d ₁ = 1 inch.		



MECHANICAL SPECIFICATIONS

Materials	-	All materials used in the construction of this transformer shall be I.A.W. UL60950-01.
Class	-	130°C
Ambient Temp.	-	-40°C to +85°C



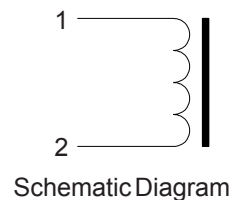
	INIT.	DATE	CAGE	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	JP	11-9-09	09349				
ENG.	JC	11-9-09		600Ω TELECOMMUNICATION COUPLING TRANSFORMER			
Q.A.	BT	11-9-09	TEST CONDITION 20° ±5C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.	E	11-9-09					DWG. NO. MCE O-1880T1

ELECTRICAL SPECIFICATIONS

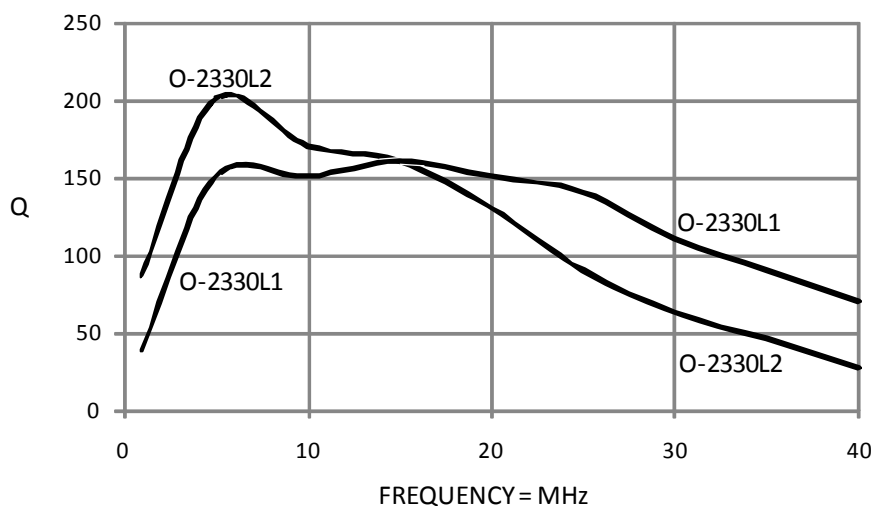
MCE P/N	L $\pm 10\%$ (μH)	DCR $\pm 15\%$ (Ω)
O-2330L1	2.5	.14
O-2330L2	3.5	.18

All electrical measurements made on HP4191A Impedance Analyzer.

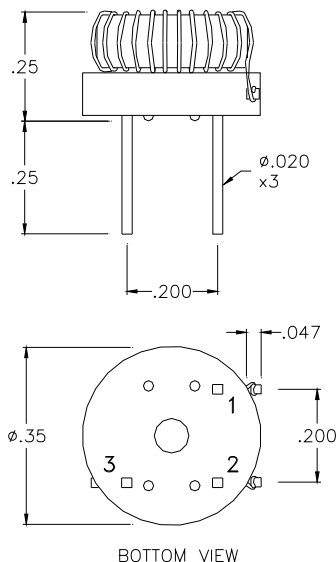
80°C maximum part temperature recommended for long term stability.



TYPICAL Q vs. FREQUENCY CURVES



MECHANICAL SPECIFICATIONS



	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	JAP	11-1-12		IRON POWDER RF INDUCTORS				
ENG.	JC	11-1-12						
Q.A.	CP	11-1-12	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.) .XX = $\pm$.03 .XXX = $\pm$.010	VOLTS $\pm 5\%$	FREQUENCY $\pm 5\%$	SIZE A	DWG. NO. O-2330LX
REV.								

APPLICATION & DESIGN FEATURES

Value-

Classical open-type part with leads and channel bracket for mounting is the simplest form of MCE Miniature Line package options and subsequently the lowest in price.

Reliability -

Internally anchored leads resist mechanical stresses. Temperature rating is 130°C.

Flexibility -

Leads permit direct connection to external circuitry where desired. Open-type construction allows part and associated components to be cast and impregnated in one container.

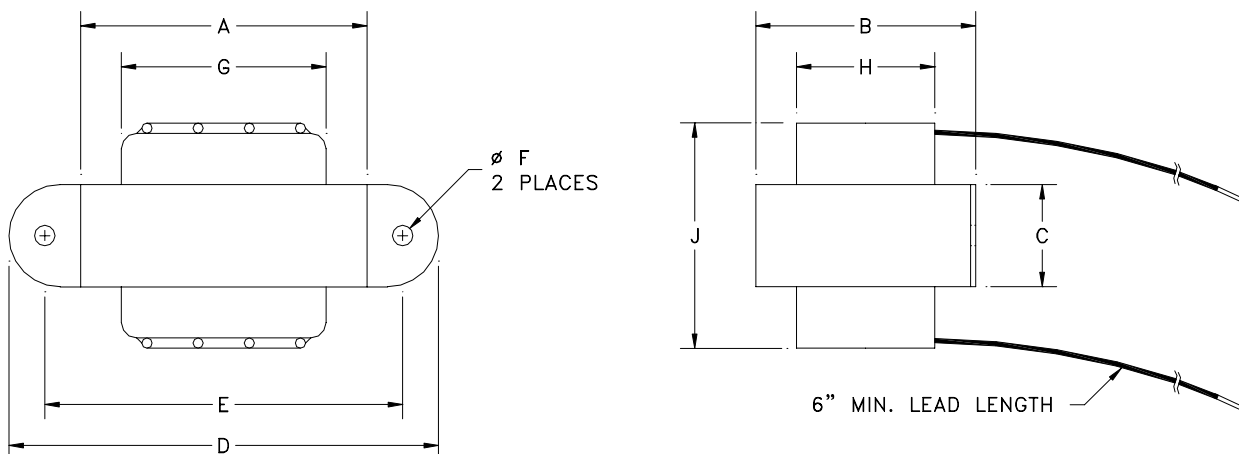
Attractive Appearance-

The clear non-yellowing moisture resistant coating brings out the natural colors of quality materials used.

MECHANICAL SPECIFICATIONS

The mechanical data shown applies to all MCE Standard Miniature parts offered in the OB package. For lead location and color coding of a specific part, see appropriate electrical application series Product Bulletin (e.g., FL, RT, etc.).

FRAME SIZE	WT. LBS.	MAX. OUTSIDE DIM.				MOUNTING DIM.		MAX. COIL DIM.		
		A	B	C	D	E ± .03	F ± .02	G	H	J
25	.078	1.10	.86	.40	1.68	1.38	.12	.79	.54	1.00
37	.16	1.37	1.20	.57	2.24	1.84	.18	.89	.71	1.15
50	.35	1.76	1.46	.70	2.43	2.00	.18	1.13	.87	1.43
62	.55	2.02	1.74	.84	2.88	2.39	.18	1.26	.99	1.57
75	.96	2.38	2.04	.96	3.30	2.81	.18	1.52	1.19	1.82
87	1.8	2.76	2.35	1.09	3.75	3.12	.18	1.77	1.38	2.10
100	2.3	3.15	2.68	1.23	4.06	3.56	.18	2.03	1.57	2.35



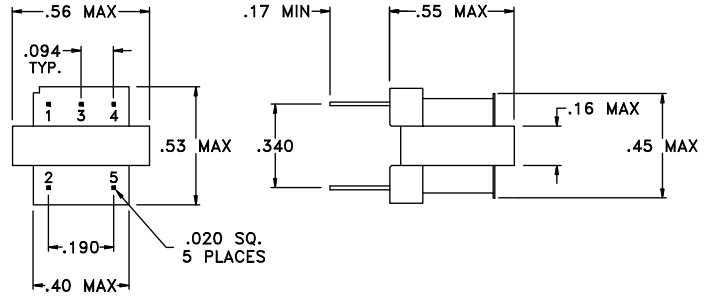
	INIT.	DATE	CAGE CODE 09349	MAGNETIC CIRCUIT ELEMENTS INC. 		
PROD.	MP	12-21-05		MINIATURE LINE PACKAGING BULLETIN		
ENG.	JC	12-21-05				
Q.A.	BT	12-21-05		DESCRIPTION OPEN TYPE PARTS	SIZE A	DWG. NO. OB
REV.	D	12-21-05	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010			

ELECTRICAL SPECIFICATIONS

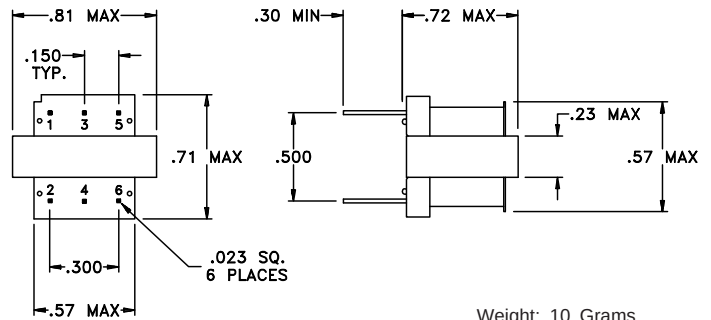
PART NUMBER	$L_0 \pm 15\%$ MILLI-H	DCR $\pm 15\%$ OHMS	DC AMPS MAX	SELF RES. FREQ.-KHZ	SCHEM. DIAG.
OC12BL22	.019	.026	4.0	3900	A
OC12BL23	.030	.042	3.2	3900	A
OC12BL24	.048	.065	2.5	3200	A
OC12BL25	.076	.10	2.0	3100	B
OC12BL26	.12	.17	1.6	3700	B
OC12BL27	.19	.26	1.3	2600	B
OC12BL28	.30	.42	1.0	2300	B
OC12BL29	.48	.66	.80	2200	B
OC12BL30	.76	1.1	.63	1700	B
OC12BL31	1.2	1.7	.50	1100	B
OC12BL32	1.9	2.7	.40	880	B
OC12BL33	3.0	4.2	.32	830	B
OC12BL34	4.8	6.8	.25	650	B
OC12BL35	7.6	11	.20	490	B
OC12BL36	12	17	.16	400	B
OC12BL37	19	27	.13	310	B
OC12BL38	30	43	.10	240	B
OC12BL39	48	69	.080	190	B
OC12BL40	76	120	.063	160	B
OC12BL41	120	170	.050	120	B
OC18BL20	.051	.035	5.0	3200	C
OC18BL21	.081	.054	4.0	3000	D
OC18BL22	.13	.085	3.2	3400	D
OC18BL23	.20	.14	2.5	1200	D
OC18BL24	.32	.22	2.0	2100	E
OC18BL25	.51	.35	1.6	1800	E
OC18BL26	.81	.54	1.3	1400	E
OC18BL27	1.3	.85	1.0	1100	E
OC18BL28	2.0	1.4	.80	850	E
OC18BL29	3.2	2.2	.63	670	E
OC18BL30	5.1	3.5	.50	530	E
OC18BL31	8.1	5.4	.40	430	E
OC18BL32	13	8.5	.32	280	E
OC18BL33	20	14	.25	260	E
OC18BL34	32	22	.20	210	E
OC18BL35	51	35	.16	160	E
OC18BL36	81	54	.13	110	E
OC18BL37	130	85	.10	92	E
OC18BL38	200	140	.080	69	E
OC18BL39	320	230	.063	57	E
OC25BL18	.070	.031	6.0	1700	F
OC25BL19	.11	.050	4.8	1000	F
OC25BL20	.18	.080	3.8	930	F
OC25BL21	.28	.13	3.0	1000	G
OC25BL22	.44	.20	2.4	960	G
OC25BL23	.70	.31	1.9	800	G
OC25BL24	1.1	.50	1.5	1100	H
OC25BL25	1.8	.80	1.2	890	H
OC25BL26	2.8	1.3	.95	720	H
OC25BL27	4.4	2.0	.75	530	H
OC25BL28	7.0	3.1	.60	450	H
OC25BL29	11	5.0	.48	340	H
OC25BL30	18	8.0	.38	270	H
OC25BL31	28	13	.30	210	H
OC25BL32	44	20	.24	170	H
OC25BL33	70	31	.19	140	H
OC25BL34	110	50	.15	110	H
OC25BL35	180	80	.12	76	H
OC25BL36	280	140	.095	61	H
OC25BL37	440	210	.075	47	H

MECHANICAL SPECIFICATIONS

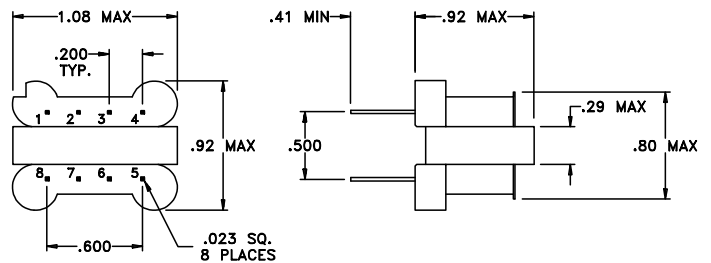
Also available in a VERTICAL configuration with two self leads.



Weight: 3.5 Grams

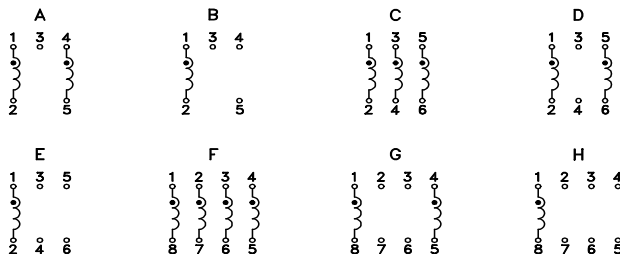


Weight: 10 Grams



Weight: 26 Grams

SCHEMATIC DIAGRAMS



NOTES

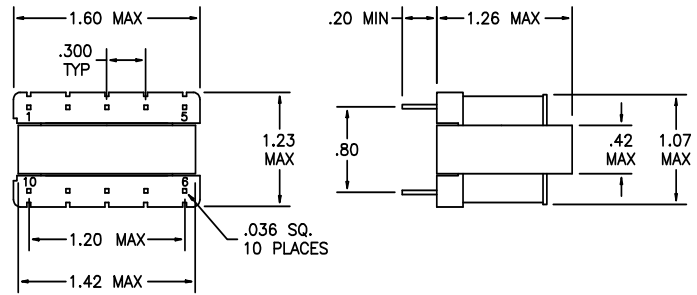
1. Initial inductance (L_0) is measured at 1 KHz.
2. DC Amps maximum rating is for a 50°C rise.
3. Inductance at MAX DC amps is approximately 90% of L_0 .
4. Maximum operating temperature is 130°C.
5. Self-Resonant Frequency is typical and for reference only.
6. All electrical measurements made with multiple windings in parallel.
7. Pins are hot solder dipped.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.			
PROD.	MP	8-31-12		"E" CORE CHOKES - FERRITE			
ENG.	JC	8-31-12					
Q.A.	B7	8-31-12	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.	B	8-31-12					DWG. NO. OC(12-25)BL

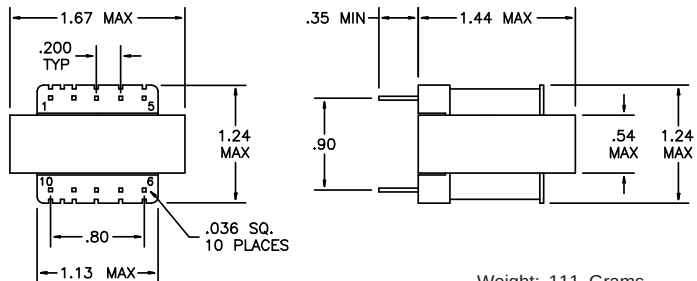
ELECTRICAL SPECIFICATIONS

PART NUMBER	$L_0 \pm 15\%$ MILLI-H	DCR $\pm 15\%$ OHMS	DC AMPS MAX	SELF RES. FREQ.-KHZ	SCHEM. DIAG.
OC38BL13	.037	.008	14	>3000	A
OC38BL14	.058	.013	11	1800	B
OC38BL15	.092	.020	9.4	1100	B
OC38BL16	.15	.032	7.4	940	B
OC38BL17	.23	.050	5.9	780	C
OC38BL18	.37	.080	4.7	620	C
OC38BL19	.58	.13	3.6	490	C
OC38BL20	.92	.20	2.9	900	D
OC38BL21	1.5	.32	2.3	660	D
OC38BL22	2.3	.50	1.8	520	D
OC38BL23	3.7	.80	1.4	440	D
OC38BL24	5.8	1.3	1.1	330	D
OC38BL25	9.2	2.0	.94	260	D
OC38BL26	15	3.2	.74	210	D
OC38BL27	23	5.0	.59	160	D
OC38BL28	37	8.0	.47	130	D
OC38BL29	58	13	.36	100	D
OC38BL30	92	20	.29	82	D
OC38BL31	150	32	.23	68	D
OC38BL32	230	50	.18	56	D
OC50BL13	.079	.011	14	>3000	A
OC50BL14	.13	.017	11	990	B
OC50BL15	.20	.026	9.4	580	B
OC50BL16	.32	.042	7.4	440	B
OC50BL17	.50	.066	5.9	410	C
OC50BL18	.79	.11	4.5	370	C
OC50BL19	1.3	.17	3.6	290	C
OC50BL20	2.0	.26	2.9	540	D
OC50BL21	3.2	.42	2.3	430	D
OC50BL22	5.0	.66	1.8	330	D
OC50BL23	7.9	1.1	1.4	270	D
OC50BL24	13	1.6	1.2	210	D
OC50BL25	20	2.6	.94	170	D
OC50BL26	32	4.3	.74	140	D
OC50BL27	50	6.7	.59	100	D
OC50BL28	79	11	.45	82	D
OC50BL29	130	17	.36	66	D
OC50BL30	200	27	.29	51	D
OC62BL12	.086	.010	18	1700	E
OC62BL13	.14	.015	14	1200	F
OC62BL14	.22	.023	11	540	G
OC62BL15	.34	.037	9.4	380	G
OC62BL16	.55	.057	7.5	240	G
OC62BL17	.86	.093	5.9	350	H
OC62BL18	1.4	.15	4.6	250	H
OC62BL19	2.2	.23	3.7	170	H
OC62BL20	3.4	.37	2.9	370	I
OC62BL21	5.5	.57	2.4	280	I
OC62BL22	8.6	.89	1.9	240	I
OC62BL23	14	1.5	1.4	190	I
OC62BL24	22	2.2	1.2	150	I
OC62BL25	34	3.7	.94	110	I
OC62BL26	55	5.7	.75	87	I
OC62BL27	86	9.1	.60	63	I
OC62BL28	140	15	.46	55	I

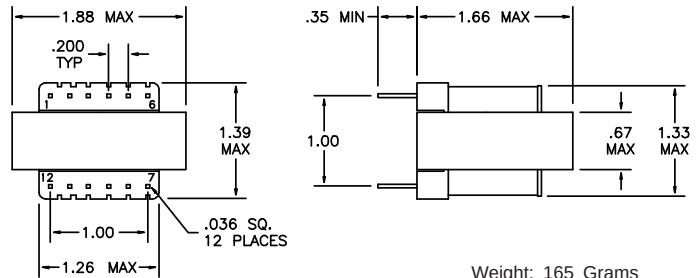
MECHANICAL SPECIFICATIONS



Weight: 69 Grams

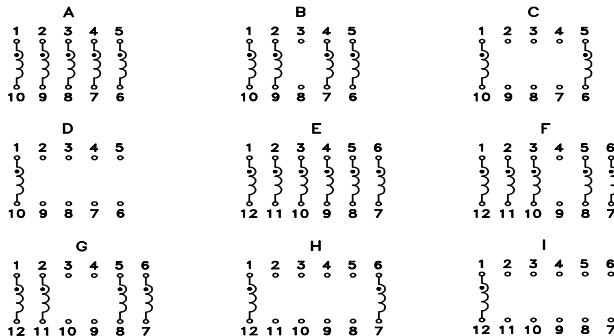


Weight: 111 Grams



Weight: 165 Grams

SCHEMATIC DIAGRAMS



NOTES

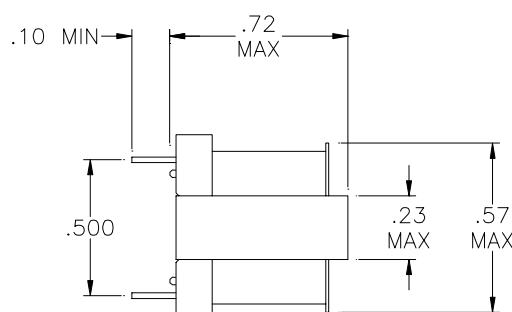
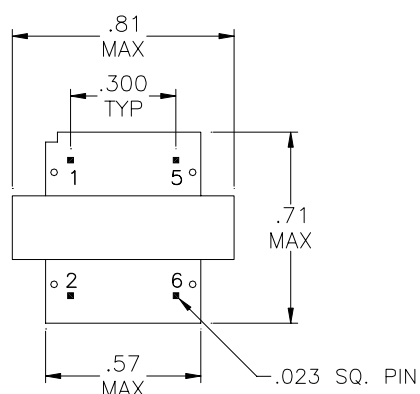
1. Initial inductance (L_0) is measured at 1 KHz.
2. DC Amps maximum rating is for a 50°C rise.
3. Inductance at MAX DC amps is approximately 90% of L_0 .
4. Maximum operating temperature is 130°C.
5. Self-Resonant Frequency is typical and for reference only.
6. All electrical measurements made with multiple windings in parallel.
7. Pins are hot solder dipped.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.			
PROD.	<i>MP</i>	8-28-12		"E" CORE CHOKES - FERRITE			
ENG.	<i>JC</i>	8-28-12					
Q.A.	<i>BT</i>	8-28-12	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.	B	8-28-12					DWG. NO. OC(38-62)BL

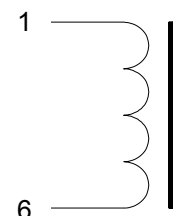
ELECTRICAL SPECIFICATIONS

PART NUMBER	$L_o \pm 25\%$ MILLI-H	DCR $\pm 20\%$ OHMS	MAX AMPS	TEST FREQUENCY - HZ
OC18CL24	.95	.20	2.0	2000
OC18CL25	1.5	.32	1.6	2000
OC18CL26	2.4	.50	1.3	2000
OC18CL27	3.8	.80	1.0	1000
OC18CL28	6.0	1.3	.80	1000
OC18CL29	9.5	2.0	.63	1000
OC18CL30	15	3.2	.50	500
OC18CL31	24	5.0	.40	500
OC18CL32	38	8.0	.32	500
OC18CL33	60	13	.25	250
OC18CL34	95	20	.20	250
OC18CL35	150	32	.16	250
OC18CL36	240	50	.13	120
OC18CL37	380	80	.10	120
OC18CL38	600	130	.080	120
OC18CL39	950	200	.063	60
OC18CL40	1500	320	.050	60
OC18CL41	2400	500	.040	60
OC18CL42	3800	800	.032	30
OC18CL43	6000	1300	.025	30
OC18CL44	9500	2000	.020	30

MECHANICAL SPECIFICATIONS



SCHEMATIC



NOTES

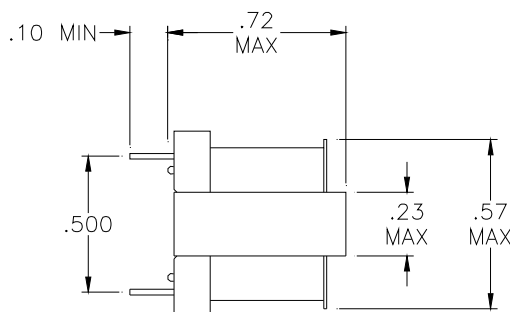
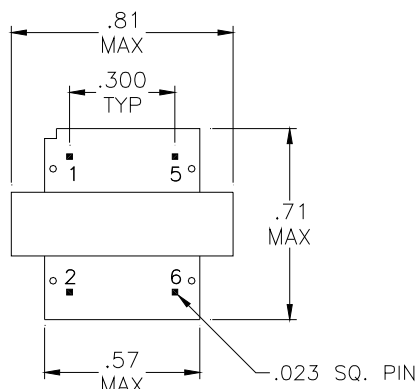
1. Initial inductance (L_o) is measured at 4 Vrms and TEST FREQUENCIES shown.
2. MAX AMPS rating is combined DC and AC RMS for a 50°C rise from an ambient of 20°C with no heatsink.
3. Inductance at MAX AMPS (DC) is approximately 80% of L_o .
4. Maximum operating temperature is 130°C.
5. All mechanical measurements are in inches.
6. Weight is approximately 13 grams.
7. Packaging: Clear acrylic resin impregnated.
8. Pins are hot solder dipped.
9. LEAD-FREE versions available as modified standard parts.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.				
PROD.	<i>MP</i>	11-9-06		AUDIO CHOKES				
ENG.	JC	11-9-06						
Q.A.	<i>BT</i>	11-9-06	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. OC18CL
REV.	B	11-9-06						

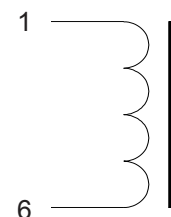
ELECTRICAL SPECIFICATIONS

PART NUMBER	$L_o \pm 25\%$ MILLI-H	DCR $\pm 20\%$ OHMS	MAX AMPS	TEST FREQUENCY - Hz
OC18CL24	.95	.20	2.0	2000
OC18CL25	1.5	.32	1.6	2000
OC18CL26	2.4	.50	1.3	2000
OC18CL27	3.8	.80	1.0	1000
OC18CL28	6.0	1.3	.80	1000
OC18CL29	9.5	2.0	.63	1000
OC18CL30	15	3.2	.50	500
OC18CL31	24	5.0	.40	500
OC18CL32	38	8.0	.32	500
OC18CL33	60	13	.25	250
OC18CL34	95	20	.20	250
OC18CL35	150	32	.16	250
OC18CL36	240	50	.13	120
OC18CL37	380	80	.10	120
OC18CL38	600	130	.080	120
OC18CL39	950	200	.063	60
OC18CL40	1500	320	.050	60
OC18CL41	2400	500	.040	60
OC18CL42	3800	800	.032	30
OC18CL43	6000	1300	.025	30
OC18CL44	9500	2000	.020	30

MECHANICAL SPECIFICATIONS



SCHEMATIC



NOTES

1. Initial inductance (L_o) is measured at 4 Vrms and TEST FREQUENCIES shown.
2. MAX AMPS rating is combined DC and AC RMS for a 50°C rise from an ambient of 20°C with no heatsink.
3. Inductance at MAX AMPS (DC) is approximately 80% of L_o .
4. Maximum operating temperature is 130°C.
5. Weight is approximately 13 grams.
6. Packaging: Clear acrylic resin impregnated.
7. Pins are hot solder dipped.
8. LEAD-FREE versions available as modified standard parts.

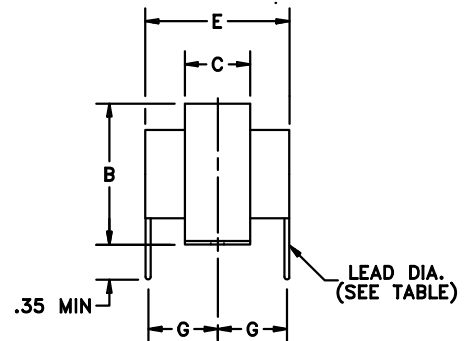
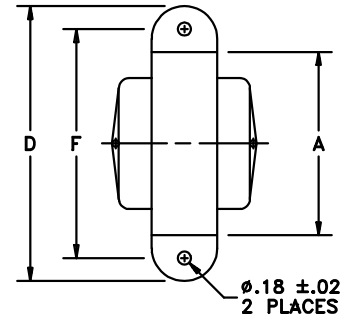
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	3-11-10		AUDIO CHOKES - LAMINATIONS				
ENG.	JC	3-11-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	3-11-10		.XX = ± .03	±5%	±5%	A	OC18CL
REV.	C	3-11-10		.XXX = ± .010				

ELECTRICAL SPECIFICATIONS

PART NUMBER	$L_0 \pm 15\%$ MILLI-H	DCR $\pm 15\%$ OHMS	DC AMPS MAX	SELF RES. FREQ.-KHZ	LEAD DIA.
OD38BL13	.039	.0083	13	4100	.072
OD38BL14	.062	.013	11	3600	.064
OD38BL15	.10	.021	8.6	2600	.057
OD38BL16	.16	.032	7.0	2100	.051
OD38BL17	.24	.049	5.6	1700	.045
OD38BL18	.39	.077	4.4	1300	.040
OD38BL19	.60	.12	3.6	1000	.036
OD38BL20	.94	.19	2.8	790	.032
OD38BL21	1.5	.30	2.2	650	.029
OD38BL22	2.3	.47	1.8	520	.025
OD38BL23	3.7	.74	1.4	390	.023
OD38BL24	5.9	1.2	1.1	300	.020
OD38BL25	9.2	1.8	.92	240	.018
OD50BL13	.082	.011	13	2800	.072
OD50BL14	.13	.018	10	2100	.064
OD50BL15	.21	.027	8.4	1700	.057
OD50BL16	.34	.043	6.7	1200	.051
OD50BL17	.51	.066	5.4	1000	.045
OD50BL18	.81	.10	4.3	740	.040
OD50BL19	1.3	.16	3.4	610	.036
OD50BL20	2.0	.25	2.7	460	.032
OD50BL21	3.2	.41	2.1	380	.029
OD50BL22	5.1	.65	1.7	300	.025
OD50BL23	8.0	1.0	1.3	230	.023
OD50BL24	13	1.6	1.0	190	.020
OD50BL25	20	2.6	.87	150	.018
OD62BL13	.15	.016	12	1800	.072
OD62BL14	.22	.024	10	1400	.064
OD62BL15	.35	.038	8.2	1000	.057
OD62BL16	.55	.058	6.6	710	.051
OD62BL17	.88	.093	5.2	580	.045
OD62BL18	1.4	.15	4.1	440	.040
OD62BL19	2.2	.23	3.3	370	.036
OD62BL20	3.4	.36	2.6	280	.032
OD62BL21	5.5	.57	2.1	230	.029
OD62BL22	8.7	.91	1.6	190	.025
OD62BL23	14	1.4	1.3	140	.023
OD62BL24	22	2.3	1.0	110	.020
OD62BL25	34	3.6	.85	94	.018
OD75BL10	.085	.0063	24	2000	.100
OD75BL11	.13	.010	19	1700	.091
OD75BL12	.21	.016	15	1400	.081
OD75BL13	.34	.025	12	1000	.072
OD75BL14	.54	.040	9.6	770	.064
OD75BL15	.85	.063	7.6	690	.057
OD75BL16	1.3	.10	6.0	500	.051
OD75BL17	2.1	.16	4.8	410	.045
OD75BL18	3.4	.25	3.8	320	.040
OD75BL19	5.4	.40	3.0	260	.036
OD75BL20	8.5	.63	2.4	200	.032
OD75BL21	13	1.0	1.9	150	.029
OD75BL22	21	1.6	1.5	110	.025
OD75BL23	34	2.5	1.2	94	.023
OD75BL24	54	4.0	.96	72	.020
OD75BL25	85	6.3	.76	56	.018

MECHANICAL SPECIFICATIONS

SIZE	WT. (g)	A MAX	B MAX	C MAX	D MAX	E MAX	F $\pm .03$	G $\pm .03$
OD38	70	1.50	1.28	.50	2.12	1.27	1.76	.53
OD50	114	1.75	1.45	.64	2.43	1.40	2.00	.59
OD62	181	2.00	1.70	.76	2.83	1.52	2.37	.65
OD75	304	2.38	2.02	.90	3.30	1.80	2.81	.79



Also available without a bracket, or in either a VERTICAL configuration or horizontal PC bobbin.

NOTES

1. Initial inductance (L_0) is measured at 1 KHz.
2. DC Amps maximum rating is for a 50°C rise.
3. Inductance at MAX DC amps is approximately 90% of L_0 .
4. Maximum operating temperature is 130°C.
5. Self-Resonant Frequency is typical and for reference only.
6. Dielectric Withstanding Voltage (winding-to-core) is 1500 VRMS, 60 Hz.
7. Leads are hot solder dipped.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS				
PROD.	MP	8-28-12		" E " CORE CHOKES - FERRITE				
ENG.	JC	8-28-12						
Q.A.	BT	8-28-12	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .005	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. ODBL
REV.	D	8-28-12						

ELECTRICAL SPECIFICATIONS

PART NUMBER	mH ±10%	OHMS ±15%	DC AMPS MAX	KHz - TYP SELF RES.	PIN CONNECTIONS
OE07DL22	.00279	.0081	6.6	>3000	1,2,3 - 4,5,6
OE07DL23	.00462	.012	5.4	>3000	1,2,3 - 4,5,6
OE07DL24	.00690	.018	4.5	>3000	1,3 - 4,6
OE07DL25	.0128	.033	3.3	>3000	1,3 - 4,6
OE07DL26	.0185	.047	2.7	>3000	1,3 - 4,6
OE07DL27	.0251	.067	2.3	>3000	1 - 4
OE07DL28	.0584	.14	1.6	>3000	1 - 4
OE07DL29	.0780	.20	1.3	>3000	1 - 4
OE07DL30	.148	.34	1.0	>3000	1 - 4
OE07DL31	.295	.62	.76	2700	1 - 4
OE07DL32	.374	.86	.64	2300	1 - 4
OE07DL33	.605	1.4	.51	1800	1 - 4
OE07DL34	.993	2.3	.39	1400	1 - 4
OE07DL35	1.50	3.5	.32	1100	1 - 4
OE07DL36	1.89	4.7	.27	1000	1 - 4
OE10DL22	.0160	.026	4.4	>3000	1,2,3,4 - 5,6,7,8
OE10DL23	.0223	.038	3.7	>3000	1,2,3,4 - 5,6,7,8
OE10DL24	.0502	.075	2.6	2800	1,4 - 5,8
OE10DL25	.0668	.11	2.2	2400	1,4 - 5,8
OE10DL26	.139	.22	1.5	1100	1,2,4 - 5,6,8
OE10DL27	.217	.32	1.3	2800	1 - 5
OE10DL28	.279	.45	1.1	2500	1 - 5
OE10DL29	.444	.70	.86	2100	1 - 5
OE10DL30	.813	1.3	.63	1500	1 - 5
OE10DL31	1.24	1.9	.52	1100	1 - 5
OE10DL32	1.93	2.9	.42	890	1 - 5
OE10DL33	3.30	4.9	.32	670	1 - 5
OE10DL34	4.40	7.0	.27	570	1 - 5
OE10DL35	6.98	11	.21	440	1 - 5
OE10DL36	12.7	20	.16	350	1 - 5
OE13DL20	.0116	.014	6.8	>3000	1,2,3,4,5 - 6,7,8,9,10
OE13DL21	.0144	.019	5.8	>3000	1,2,4,5 - 6,7,9,10
OE13DL22	.0250	.034	4.4	>3000	1,2,4,5 - 6,7,9,10
OE13DL23	.0462	.057	3.4	2800	1,2,4,5 - 6,7,9,10
OE13DL24	.0810	.092	2.7	2800	2,4 - 7,9
OE13DL25	.108	.13	2.2	1600	2,4 - 7,9
OE13DL26	.196	.23	1.7	1200	2,4 - 7,9
OE13DL27	.324	.38	1.3	2000	3 - 8
OE13DL28	.666	.70	.98	1300	3 - 8
OE13DL29	1.05	1.1	.78	1100	3 - 8
OE13DL30	1.80	1.9	.60	840	3 - 8
OE13DL31	2.30	2.5	.51	740	3 - 8
OE13DL32	3.55	3.9	.41	580	3 - 8
OE13DL33	6.72	7.0	.31	400	3 - 8
OE13DL34	9.41	10	.25	350	3 - 8
OE17DL19	.0259	.016	6.7	>3000	1,2,3,4 - 5,6,7,8
OE17DL20	.0500	.027	5.1	2300	1,2,3,4 - 5,6,7,8
OE17DL21	.0769	.041	4.2	2000	1,2,3,4 - 5,6,7,8
OE17DL22	.104	.058	3.5	1600	1,4 - 5,8
OE17DL23	.135	.082	2.9	1400	1,4 - 5,8
OE17DL24	.328	.17	2.1	710	1,4 - 5,8
OE17DL25	.620	.29	1.6	1200	1 - 5
OE17DL26	.816	.41	1.3	1000	1 - 5
OE17DL27	1.46	.69	1.0	780	1 - 5
OE17DL28	2.31	1.1	.80	630	1 - 5
OE17DL29	2.89	1.5	.70	570	1 - 5
OE17DL30	5.04	2.6	.53	440	1 - 5
OE17DL31	8.55	4.2	.41	300	1 - 5
OE17DL32	12.9	6.3	.34	240	1 - 5
OE17DL33	21.7	11	.26	190	1 - 5
OE20DL18	.0706	.022	7.3	1500	1,2,3,4,5 - 6,7,8,9,10
OE20DL19	.172	.048	4.9	830	1,2,4,5 - 6,7,9,10
OE20DL20	.271	.073	4.0	520	1,3,5 - 6,8,10
OE20DL21	.380	.10	3.3	560	1,2,4,5 - 6,7,9,10
OE20DL22	.602	.16	2.7	400	1,5 - 6,10
OE20DL23	1.04	.28	2.0	780	1,5 - 6,10
OE20DL24	1.37	.39	1.7	680	1,5 - 6,10
OE20DL25	3.23	.78	1.2	440	1 - 6
OE20DL26	4.04	1.1	1.0	400	1 - 6
OE20DL27	6.78	1.8	.82	290	1 - 6
OE20DL28	11.1	2.9	.63	230	1 - 6
OE20DL29	18.4	4.6	.50	180	1 - 6
OE20DL30	29.4	7.7	.39	140	1 - 6
OE20DL31	39.3	11	.33	120	1 - 6
OE20DL32	58.6	17	.26	98	1 - 6

MECHANICAL SPECIFICATIONS

SIZE	Fig.	H MAX	W MAX	L MAX	P MIN	D ±.01	S ±.01	DIA. ±.003	WT. (g)
OE07	A	.40	.33	.40	.11	.20	.10	.024	2.2
OE10	B	.47	.47	.49	.12	.30	.10	.026	4.4
OE13	C	.51	.55	.55	.15	.40	.10	.028	7.1
OE17	B	.65	.78	.78	.15	.60	.20	.026	15
OE20	C	.80	.89	.99	.15	.70	.20	.026	37

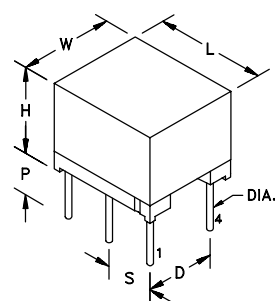
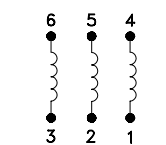


Figure A



PC Board Footprint
(Top View)

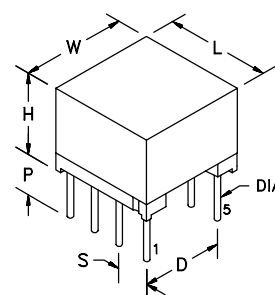
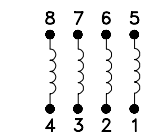


Figure B



PC Board Footprint
(Top View)

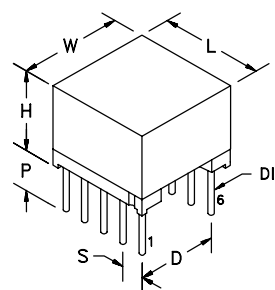
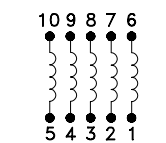


Figure C



PC Board Footprint
(Top View)

NOTES

- DC Amps maximum rating is for a 50°C rise.
- Maximum operating temperature is 130°C.
- Self-Resonant Frequency is typical and for reference only.
- All electrical data at 20° ± 5° C with multiple windings in parallel.
- All mechanical dimensions are in inches.
- Pins are hot solder dipped.
- The OE07, 10, & 13 are available in SURFACE MOUNT configurations.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.				
PROD.	MP	5-5-05		"EP" CORE CHOKES - FERRITE				
ENG.	JC	5-5-05	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	B.T.	5-5-05		.XX = ± .03	±5%	±5%	A	OE(07-20)DL
REV.	D	5-5-05		.XXX = ± .010				

ELECTRICAL SPECIFICATIONS

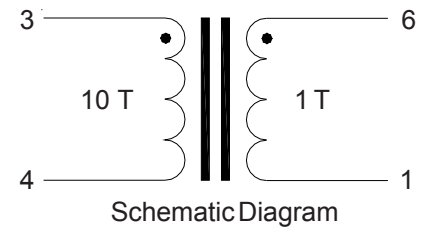
T/R & Ø	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 15\%$
DCR	-	(3-4) ref.	1.000	.059
	-	(6-1)	.100 Ø	.0093

L (3-4) - 200 μH MIN (300 μH TYP) at 100 mVRMS, 10 kHz.

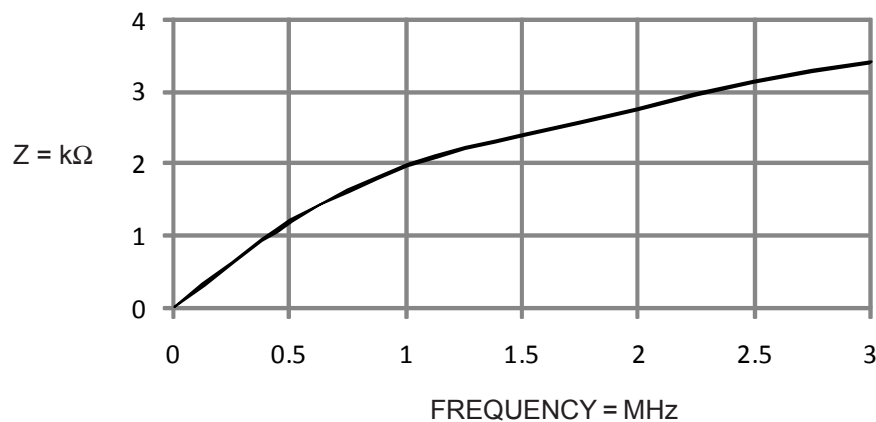
L (6-1) - 2 μH MIN (3 μH TYP) at 30 mVRMS, 100 kHz.

C (3-4) to (6-1) - 3.5 pF MAX (2.5 pF TYP) at 5 VRMS, 100 kHz.

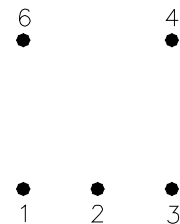
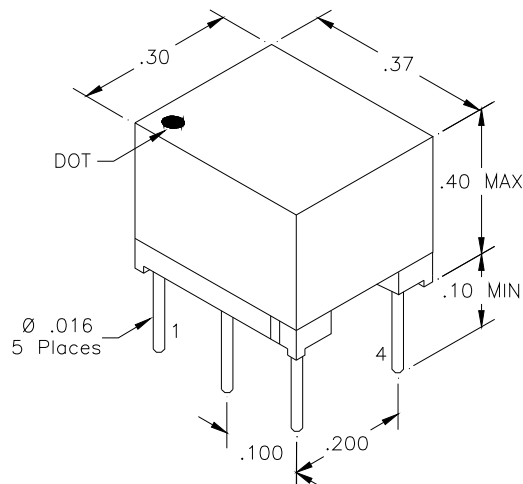
Note: This part can be used as a current transformer with the 1 turn winding as the primary.



IMPEDANCE ($k\Omega$) vs. FREQUENCY (MHz) at 200 mVRMS



MECHANICAL SPECIFICATIONS



PC Board Footprint
(Top View)

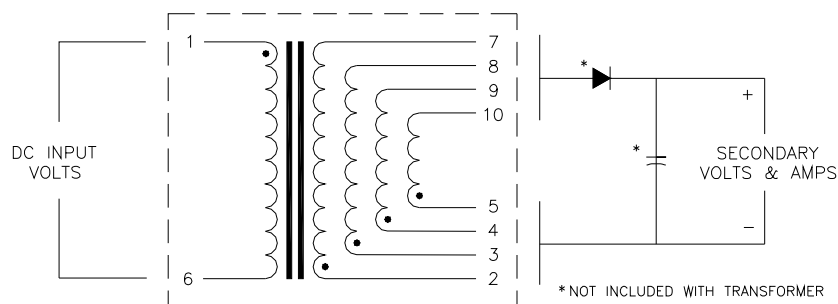
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	11-3-09		RF TRANSFORMER				
ENG.	JC	11-3-09						
Q.A.	BT	11-3-09	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. OE07BT10
REV.								

ELECTRICAL SPECIFICATIONS

PART NUMBER	FREQUENCY kHz	DC INPUT VOLTS	SECONDARY VOLTS	SECONDARY AMPS	PRIMARY L $\pm 10\%$ MICRO - H	PRIMARY LEAKAGE (TYP) MICRO - H	PRIMARY DCR $\pm 10\%$ MILLI - OHMS	SECONDARY DCR $\pm 10\%$ MILLI - OHMS
OE13GT3	100	10 - 15	3.3	1.5	17	.200	45	7.9
OE13GT5	100	10 - 15	5.0	1.0	17	.200	45	11

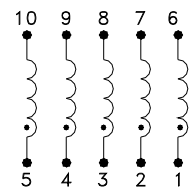
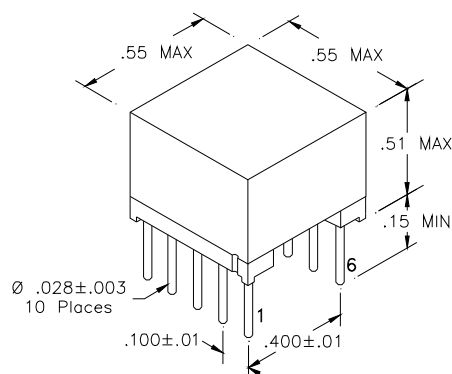
Data is for all secondaries connected in parallel. All voltages and currents are DC.

SCHEMATIC DIAGRAM



MECHANICAL SPECIFICATION

Weight: 6.3 grams



PC Board Footprint
(Top View)

NOTES

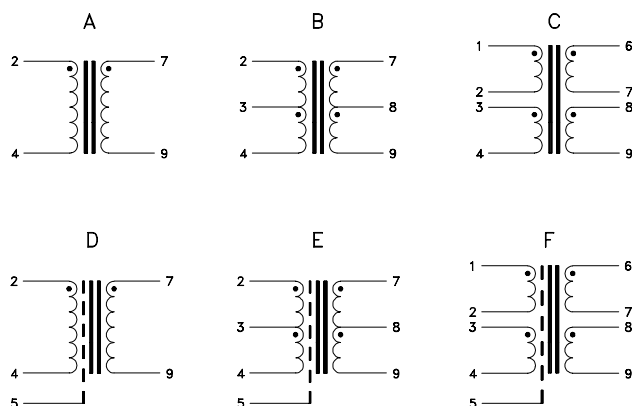
- OEGT Flyback Transformers are for discontinuous mode with a maximum duty ratio of 0.50.
- Maximum operating temperature is 130°C.
- All mechanical dimensions are in inches.
- Pins are hot solder dipped.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	10-26-11		LOW LEAKAGE FLYBACK TRANSFORMERS				
ENG.	JC	10-26-11	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	10-26-11		.XX = ± .03		±5%	A	OE13GT
REV.	B	10-26-11		.XXX = ± .010				

ELECTRICAL SPECIFICATIONS

PART NUMBER	PRIMARY L = 700 mH MIN	PRIMARY DCR = 35 Ω -15%	SECONDARY DCR = 45 Ω -15%	TURNS RATIO	IMPEDANCE RATIO (Ω)	SCHEMATIC DIAGRAM
OE13TT1	(2-4)	(2-4)	(7-9)	1:1	600:600	A
OE13TT2	(2-4)	(2-4)	(7-9)	1:1:1:1	150:150:150:150	B
OE13TT3	(1-4)	(1-4)	(6-9)	1:1:1:1	150:150:150:150	C
OE13TT4	(2-4)	(2-4)	(7-9)	1:1	600:600	D
OE13TT5	(2-4)	(2-4)	(7-9)	1:1:1:1	150:150:150:150	E
OE13TT6	(1-4)	(1-4)	(6-9)	1:1:1:1	150:150:150:150	F

SCHEMATIC DIAGRAMS

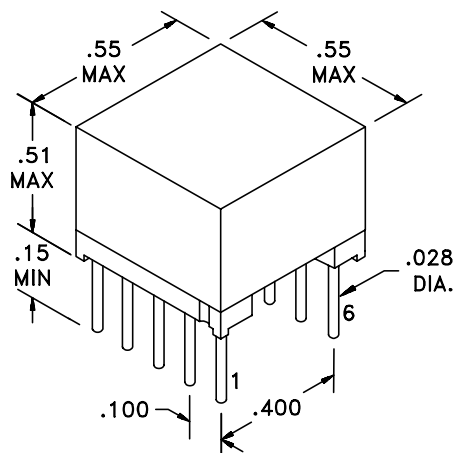


NOTES

1. Initial Inductance (L) is measured at 1 KHz with no DC.
2. Frequency Response is ± 1 db from 200 Hz-to-100 KHz.
3. Insertion Loss is < 1 db at 1 KHz.
4. Power Level is 6 mW MAX.
5. Maximum operating temperature is 130°C.
6. Dielectric Withstanding Voltage (primaries and shield-to-secondaries) is 1800 Vdc, 10 μ A MAX leakage per UL1459.
7. All mechanical dimensions are in inches.
8. Pins are hot solder dipped.

MECHANICAL SPECIFICATIONS

Weight: 6.3 grams



10 9 8 7 6
● ● ● ● ●

● ● ● ● ●
5 4 3 2 1

PC Board Footprint
(Top View)

SMD:

Available in SURFACE MOUNT configurations.

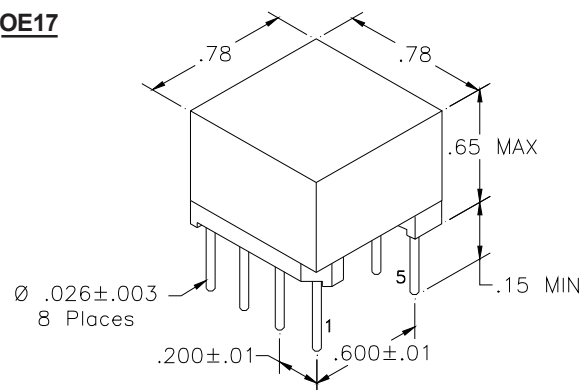
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.				
PROD.	MP	12-7-01		TELEPHONE COUPLING TRANSFORMERS				
ENG.	JC	12-7-01						
Q.A.	BT	12-7-01	TEST CONDITION 20° ± 5° C	DECIMALS .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. OE13TT
REV.	D	12-7-01						

ELECTRICAL SPECIFICATIONS

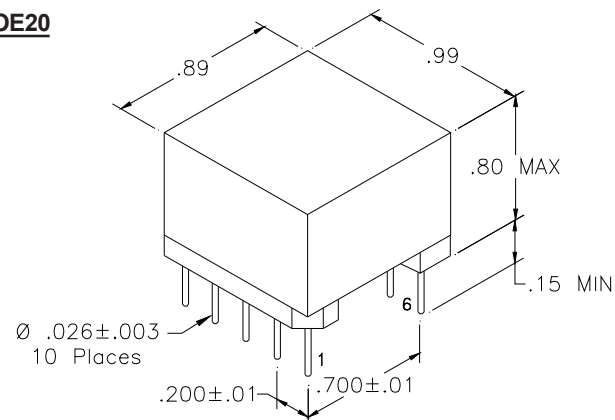
PART NUMBER	L MIN MILLI - H EA. WNDG.	DCR OHMS ±15% SERIES TTL.	AMPS MAX	SELF RES. kHz TYP	SCHEM. DIAG.
OE17ZL22	2.7	.061	3.3	2300	A
OE17ZL23	4.1	.093	2.7	1200	A
OE17ZL24	5.7	.14	2.2	560	A
OE17ZL25	9.8	.22	1.8	180	B
OE17ZL26	15	.34	1.4	130	B
OE20ZL22	12	.14	2.8	95	C
OE20ZL23	20	.22	2.2	60	C
OE20ZL24	31	.35	1.8	40	C
OE20ZL25	48	.54	1.4	55	D
OE20ZL26	82	.86	1.1	38	D

MECHANICAL SPECIFICATIONS

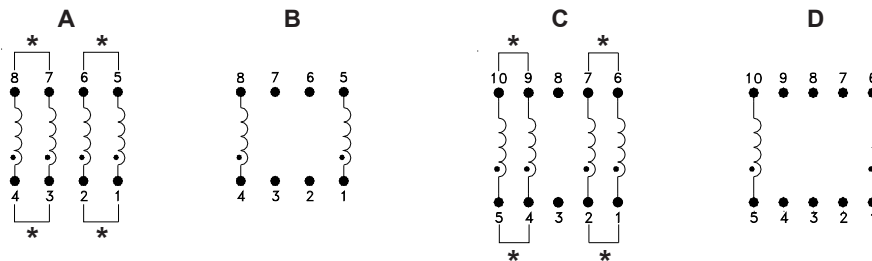
OE17



OE20



SCHEMATIC DIAGRAMS



PCB Footprint
(Top View)
Not to scale

NOTES

- Inductance is measured at 100 mVRMS, 1 kHz.
- Typical nominal inductance is 20% higher than the L MIN.
- Self Resonant Frequency is for one winding only.
- Connect windings in parallel on PCB as shown.*
- Maximum Amps rating (AC or DC) is for a 50°C rise.
- Dielectric Withstanding Voltage is 500 VDC, 5 µA MAX leakage from winding-to-winding.
- Impedance vs. Frequency data available upon request.
- Maximum operating temperature is 105° C.
- Pins are hot solder dipped.

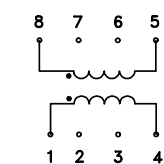
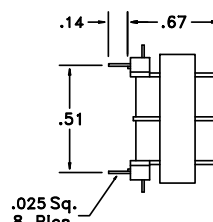
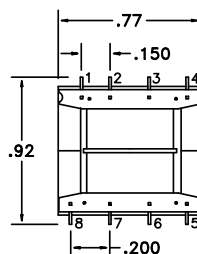
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MAP	4-6-11		"EP" CORE COMMON MODE CHOKES				
ENG.	JC	4-6-11	TEST CONDITION 20° ± 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	4-6-11		.XX = ± .03	±5%	±5%	A	OEZL
REV.				.XXX = ± .010				

ELECTRICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

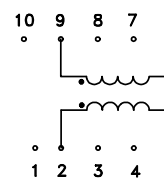
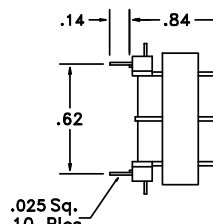
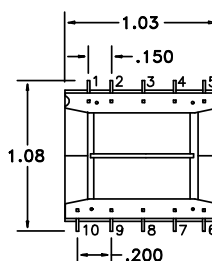
PART NUMBER	mH-MIN EA. WNDG.	OHMS $\pm 15\%$ EA. WNDG.	AMPS MAX	mH-TYP LEAKAGE	KHz-TYP SELF RES.
OG18ML25	2.5	.15	1.8	.041	670
OG18ML26	4.0	.23	1.4	.066	490
OG18ML27	6.3	.36	1.1	.10	360
OG18ML28	10	.57	.93	.16	280
OG18ML29	16	.93	.73	.26	240
OG18ML30	25	1.5	.57	.42	180
OG18ML31	40	2.3	.46	.66	140
OG18ML32	63	3.6	.37	1.0	110
OG18ML33	100	5.8	.29	1.7	90
OG18ML34	160	9.3	.23	2.6	80
OG25ML23	4.0	.12	2.3	.048	520
OG25ML24	6.3	.20	1.8	.075	440
OG25ML25	10	.31	1.4	.12	340
OG25ML26	16	.50	1.1	.19	270
OG25ML27	25	.78	.91	.30	200
OG25ML28	40	1.2	.73	.48	150
OG25ML29	63	2.0	.57	.78	120
OG25ML30	100	3.1	.45	1.2	90
OG25ML31	160	5.0	.36	2.0	70
OG25ML32	250	7.6	.29	3.0	60

Modified standard parts available with choice of pins.



PC Board Footprint
(Top View)

Weight: 12 Grams



PC Board Footprint
(Top View)

Weight: 26 Grams

NOTES

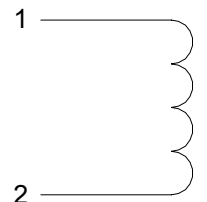
- Inductance is measured at 0.1 VRMS, 1.0 kHz.
- Maximum Amps rating (AC or DC) is for a 50°C rise.
- Maximum operating temperature is 130°C.
- Self-Resonant Frequency for one winding only.
- Typical Capacitance between windings: OG18MLxx = 5 pF; OG25MLxx = 7 pF.
- Dielectric Withstanding Voltage (winding-to-winding) is 2500 V peak impulse I.A.W. UL 3101-1.
- Impedance vs. Frequency data available upon request.
- Pins are tin plated phosphor bronze.

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	MP	3-11-10		COMMON MODE CHOKES - FERRITE			
ENG.	JC	3-11-10					
Q.A.	B.T.	3-11-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.	B	3-11-10		DWG. NO. OG(18-25)ML			

ELECTRICAL SPECIFICATIONS

PART NUMBER	$L_o \pm 5\%$ MICRO - H	DCR $\pm 10\%$ MILLI - OHMS	SRF - MHz TYPICAL
OH18KL1	1.12	4.1	83
OH18KL2	1.72	5.0	65
OH18KL3	2.47	7.3	55
OH18KL4	3.36	13	49
OH18KL5	4.39	19	43
OH18KL6	5.52	26	38
OH18KL7	6.82	36	35
OH18KL8	8.26	50	32
OH18KL9	9.82	70	30
OH18KL10	11.5	96	28

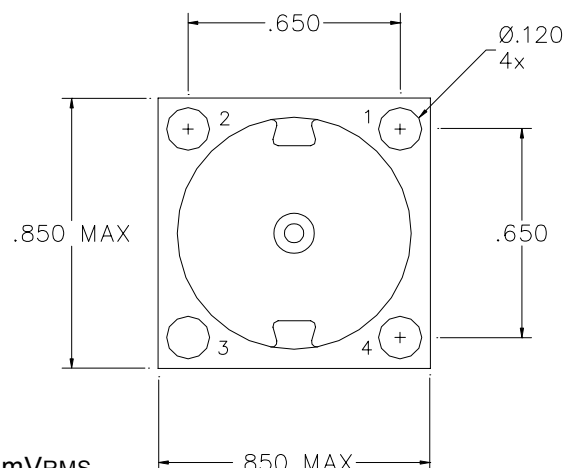
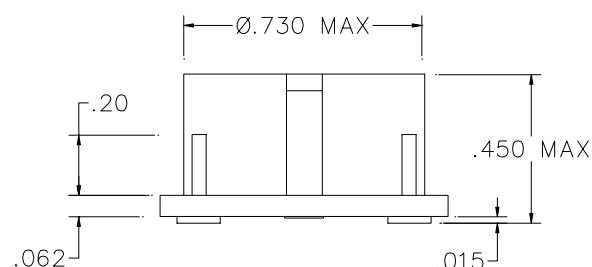
SCHEMATIC DIAGRAM



APPLICATION FEATURES

1. Typical inductor Q is in the 300-400 range.
2. Typical Inductance (L_o) adjustment range is 14-17%.
3. Low Profile SMD.
4. Modified standard parts with different inductance values or terminations are available.

MECHANICAL SPECIFICATIONS



Bottom View

NOTES

1. Inductance (L_o) is measured at 50 mVRMS, 1 MHz.
2. Self Resonant Frequency (SRF) and Q are measured at 50 mVRMS.
3. All electrical data at $20^\circ \pm 5^\circ \text{C}$ without an adjuster installed.
4. Maximum operating temperature is 130°C .

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.				
PROD.	<i>MP</i>	4-18-05		1 - 12 MHz ADJUSTABLE INDUCTORS				
ENG.	<i>JC</i>	4-18-05						
Q.A.	<i>BZ</i>	4-18-05	TEST CONDITION $20^\circ \pm 5^\circ \text{C}$	DECIMALS (IN.) .XX = $\pm .03$.XXX = $\pm .010$	VOLTS $\pm 5\%$	FREQUENCY $\pm 5\%$	SIZE A	DWG. NO. OH18KL
REV.								

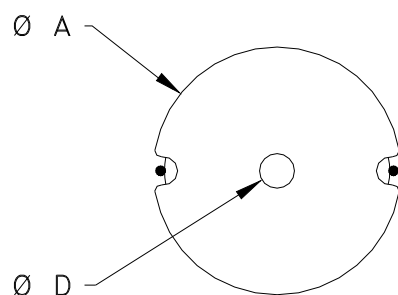
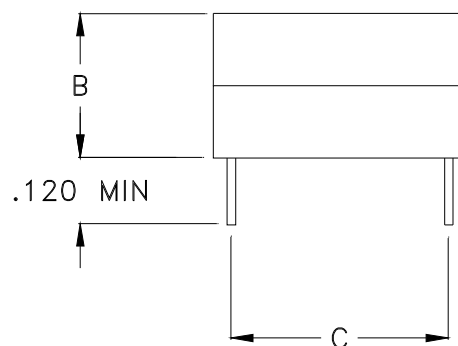
ELECTRICAL SPECIFICATIONS

PART NUMBER	L ₀ ±10% MICRO - H	DCR ±10% MILLI - OHMS	DC AMPS MAX	SRF kHz REF	LEAD DIA
OJ14EL21	14	15	6.0	>3000	.029
OJ14EL22	25	25	4.6	>3000	.026
OJ14EL23	40	40	3.7	>3000	.023
OJ14EL24	63	63	2.9	>3000	.020
OJ14EL25	100	100	2.3	>3000	.018
OJ14EL26	160	160	1.8	>3000	.016
OJ18EL20	25	20	6.3	>3000	.032
OJ18EL21	40	30	5.1	>3000	.029
OJ18EL22	63	50	4.0	>3000	.026
OJ18EL23	100	80	3.1	>3000	.023
OJ18EL24	160	120	2.5	>3000	.020
OJ18EL25	250	200	2.0	2440	.018
OJ22EL19	63	23	6.3	>3000	.036
OJ22EL20	100	36	5.0	>3000	.032
OJ22EL21	160	57	4.0	3000	.029
OJ22EL22	250	90	3.1	2300	.026
OJ22EL23	400	140	2.5	1800	.023
OJ22EL24	630	230	2.0	1400	.020
OJ26EL18	63	22	7.9	>3000	.040
OJ26EL19	100	34	6.3	3000	.036
OJ26EL20	160	54	5.0	2400	.032
OJ26EL21	250	85	4.0	1900	.029
OJ26EL22	400	135	3.2	1500	.026
OJ26EL23	630	220	2.5	1140	.023
OJ30EL17	160	33	7.4	2600	.045
OJ30EL18	250	50	6.0	2000	.040
OJ30EL19	400	80	4.7	1600	.036
OJ30EL20	630	130	3.7	1200	.032
OJ30EL21	1000	210	2.9	900	.029
OJ30EL22	1600	340	2.3	680	.026
OJ36EL16	250	32	8.3	1950	.051
OJ36EL17	400	50	6.6	1500	.045
OJ36EL18	630	80	5.2	1200	.040
OJ36EL19	1000	130	4.1	900	.036
OJ36EL20	1600	200	3.3	650	.032
OJ36EL21	2500	320	2.6	500	.029
OJ42EL11	63	6.0	20.0	>3000	.091
OJ42EL12	100	9.0	17.0	>3000	.081
OJ42EL13	160	14	14.0	2600	.072
OJ42EL14	250	22	11.0	2100	.064
OJ42EL15	400	35	9.0	1500	.057
OJ42EL16	630	55	7.1	1100	.051
OJ42EL17	1000	90	5.6	800	.045
OJ42EL18	1600	140	4.5	600	.040
OJ42EL19	2500	230	3.5	450	.036
OJ42EL20	4000	360	2.8	340	.032

MECHANICAL SPECIFICATIONS

SIZE	A MAX	B MAX	C REF*	D ±.005
OJ14	.57	.35	.50	.122
OJ18	.74	.43	.65	.122
OJ22	.88	.54	.75	.179
OJ26	1.04	.65	.88	.219
OJ30	1.22	.76	1.03	.219
OJ36	1.44	.89	1.22	.219
OJ42	1.72	1.20	1.45	.219

* The "C" dimension is the recommended center-to-center spacing for printed circuit board layout.



Bottom View

NOTES

1. Initial inductance (L₀) is measured at 100 mVRMS, 10 kHz.
2. DC Amps maximum rating is for a 50°C rise.
3. Maximum operating temperature is 130°C.
4. All electrical data at 20° ± 5°C.
5. Leads are copper, hot solder dipped.
6. WARNING! Do not use a metal bolt in the center hole.

	INIT.	DATE	TOLERANCES DECIMALS (IN.) .XX = ± 0.03 .XXX = ± 0.010 VOLTS = ±5%	MAGNETIC CIRCUIT ELEMENTS INC. 		
PROD.	JP	3-30-10				
ENG.	JC	3-30-10		POT CORE CHOKES - FERRITE		
Q.A.	BT	3-30-10	CAGE CODE 09349	CONTACT INFORMATION www.MCEmagnetics.com ph. (831)757-8752 fax (831)757-5478		DWG. NO. OJEL
REV.	C	3-30-10				

APPLICATION FEATURES

Space Efficient - The OMSL series utilizes the square RM core design which locates the PC pins within the core notches.

PC Footprint - Both the terminals and the grounding clips fit a standard 0.1 inch grid.

Automation - Pick and place adaptable due to the flat top surface.

Heat Transfer - A large core area at the base facilitates heat sink applications.

DESIGN FEATURES

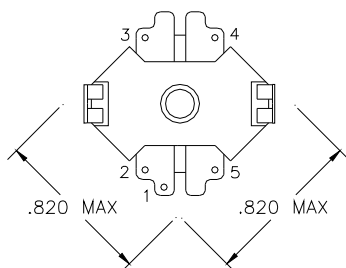
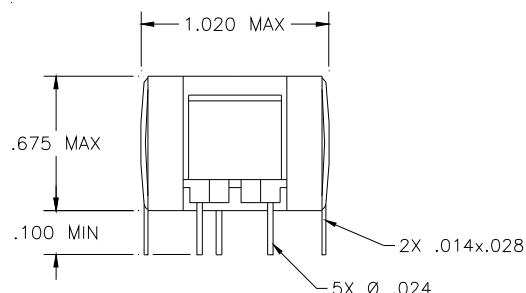
Split Winding - Allows use as a common mode choke or a filter choke.

Gapped Core - Inductance is flat with DC and is also temperature stable.

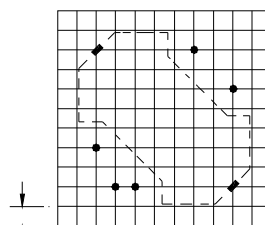
ELECTRICAL SPECIFICATIONS

MCE P/N	COMMON MODE CHOKE (each winding)			DC FILTER CHOKE (windings connected in series)			
	L - $\pm 10\%$ μH	RMS - MAX AMPS	R - $\pm 15\%$ OHMS	L - $\pm 10\%$ μH	DC - MAX AMPS	R - $\pm 15\%$ OHMS	SELF RES. TYP - MHz
OM08SL22	83	1.5	.044	330	1.5	.087	3.1
OM08SL23	130	1.2	.070	530	1.2	.14	2.5
OM08SL24	210	.90	.13	840	.90	.25	2.0
OM08SL25	325	.80	.16	1300	.80	.32	1.6
OM08SL26	500	.63	.25	2000	.63	.50	1.3
OM08SL27	810	.51	.39	3250	.51	.77	1.0
OM08SL28	1300	.41	.60	5200	.41	1.2	.80

MECHANICAL SPECIFICATIONS



BOTTOM VIEW

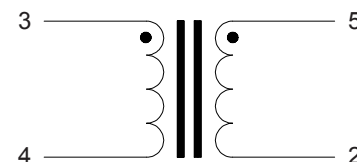


PCB FOOTPRINT
(TOP VIEW)

NOTES

1. Inductance measured at 100 mV, 10 kHz.
2. MAX Amps rating (AC or DC) is for a 40°C rise.
3. Maximum operating temperature is 130°C.
4. All electrical data at 20°±5°C.

SCHEMATIC



PROD.	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC.				
	JP	3-10-10		www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
	ENG.	JC		COMMON MODE or DC FILTER - CHOKES - RF				
	Q.A.	BT						
REV.	C	3-10-10	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. OMSL

APPLICATION FEATURES

Space Efficient - The OMVL series utilizes the square RM core design which locates the PC pins within the core notches.

PC Footprint - Both the terminals and the grounding clips fit a standard 0.1 inch grid.

Automation - Pick and place adaptable due to the flat top surface.

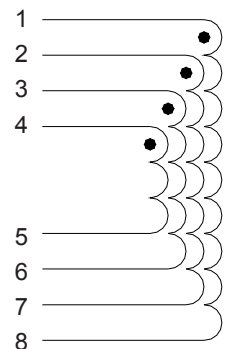
Heat Transfer - A large core area at the base facilitates heat sink applications.

Gapped Core - Inductance is flat with DC and is also temperature stable.

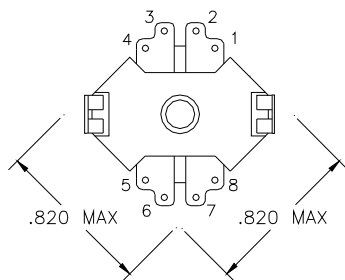
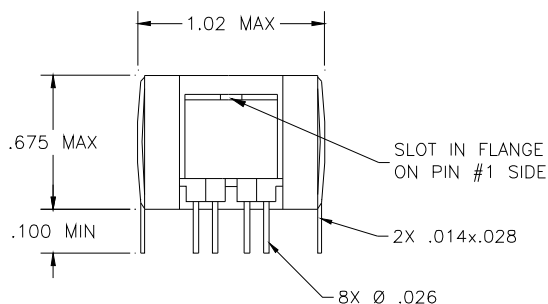
ELECTRICAL SPECIFICATIONS

MCE P/N	L - $\pm 10\%$ MILLI - H	R - $\pm 15\%$ MILLI-OHMS	DC - MAX AMPS	SELF RES. TYP - MHz
OM08VL26	.25	.048	1.7	610
OM08VL27	.40	.073	1.4	490
OM08VL28	.63	.12	1.1	390
OM08VL29	1.0	.18	.86	310
OM08VL30	1.6	.29	.68	250
OM08VL31	2.5	.45	.55	200
OM08VL32	4.0	.73	.43	160
OM08VL33	6.3	1.20	.34	120
OM08VL34	10	1.80	.27	100
OM08VL35	16	2.90	.22	80

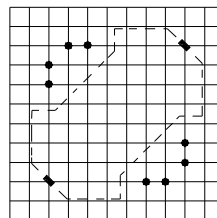
SCHEMATIC



MECHANICAL SPECIFICATIONS



BOTTOM VIEW



PCB FOOTPRINT
(TOP VIEW)

NOTES

1. Inductance measured at 100 mV, 10 kHz.
2. DC Amps maximum rating is for a typical roll-off of 10%.
3. Self Resonant Frequency is for reference only.
4. Maximum operating temperature is 130°C.
5. All electrical data is with all windings connected in parallel.
6. Pins are hot solder dipped.

	INIT.	DATE	CAGE	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	3-10-10	09349					
ENG.	JC	3-10-10		SQUARE POT CORE CHOKES				
Q.A.	BT	3-10-10	TEST CONDITION	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
REV.			20° ± 5° C	.XX = ± .03	±5%	±5%	A	OMVL
				.XXX = ± .010				

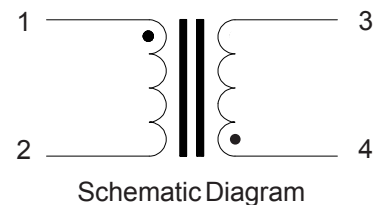
ELECTRICAL SPECIFICATIONS

L (1-2) or (4-3) - 130 μ H $\pm$ 10% at .1 VRMS, 10 kHz.

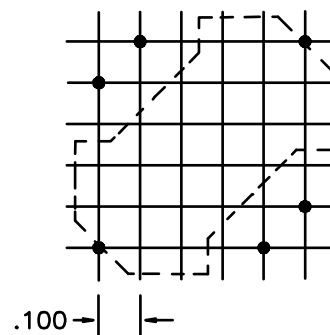
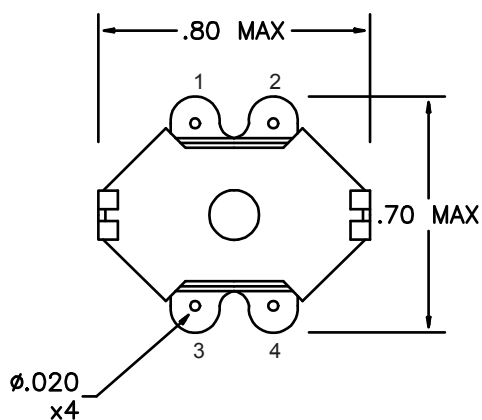
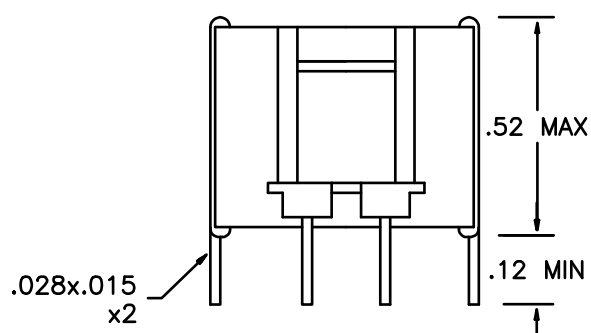
L (1-3) - 500 μ H $\pm$ 10% at .1 VRMS, 10 kHz
with 2 & 4 jumper.

L_{DC} (1-3) - 7% roll off TYP at 1 A DC.

Self Resonant Frequency - Greater than 2 MHz.



MECHANICAL SPECIFICATIONS

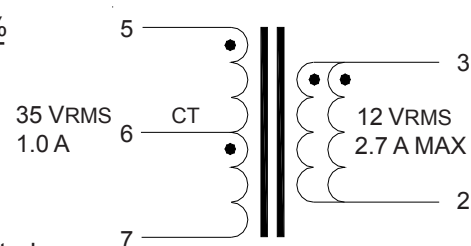


Bottom View

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	<i>MP</i>	11-16-09		4 TERMINAL DC FILTER CHOKE			
ENG.	<i>JC</i>	11-16-09					
Q.A.	<i>BT</i>	11-16-09	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.) .XX = $\pm$.03 .XXX = $\pm$.010	VOLTS $\pm$ 5%	FREQUENCY $\pm$ 5%	SIZE A
REV.							DWG. NO. OR06GL26

ELECTRICAL SPECIFICATIONS

T/R & Ø	-	Winding	Turns Ratio ±3%	DCR Ω ±15%
DCR		(5-7) ref.	1.000	.500
		(5-6)	.500 Ø	.250
		(3-2)	.183 Ø	.044



Schematic Diagram

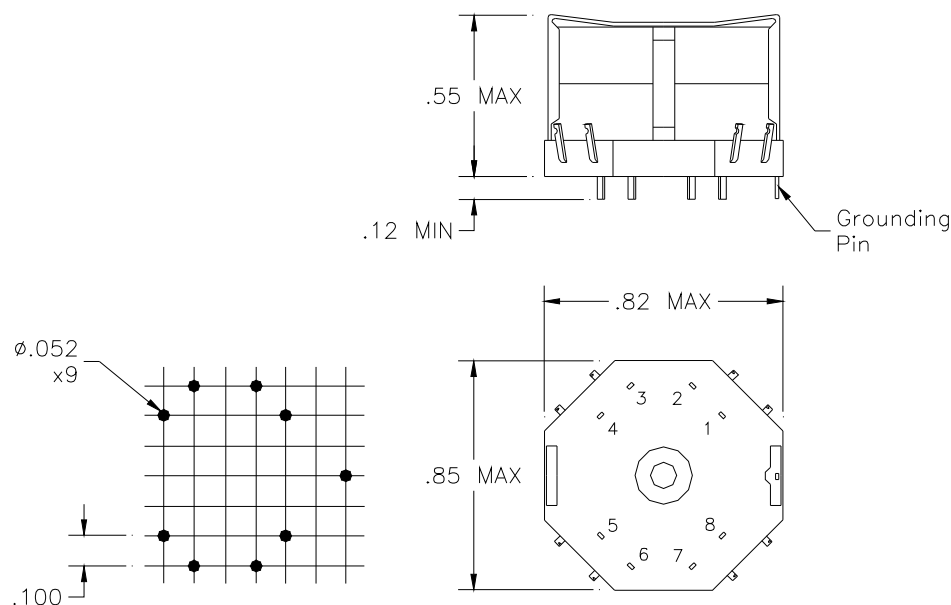
L (5-6) or (6-7) - 2.5 mH at 100 mVRMS, 1 kHz.

Leakage L (5-6) or (6-7) - 2 µH TYP at 100 mVRMS, 1 MHz with 3&2 shorted.

C (5-6) or (6-7)-to-(3-2) - 50 pF TYP at 5 VRMS, 100 kHz.

Dielectric Strength - 500 VDC, 5 µA MAX leakage from 5-to-3.

MECHANICAL SPECIFICATIONS



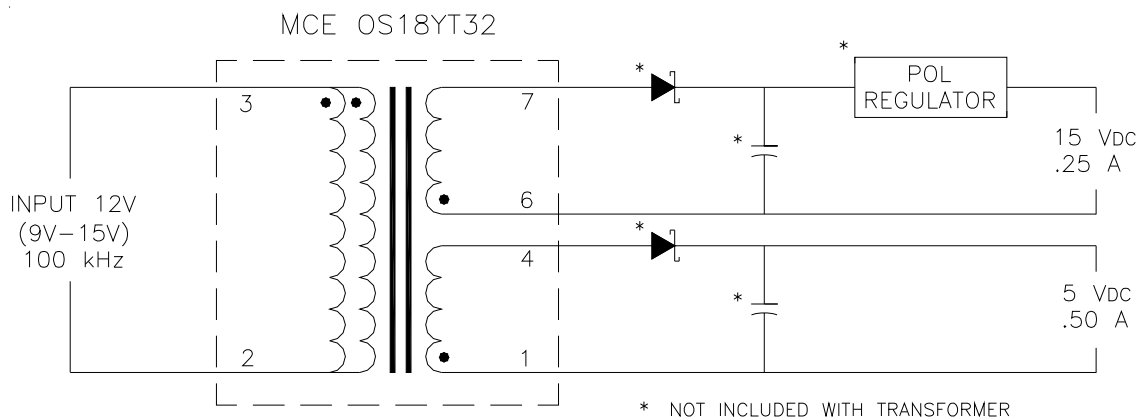
Bottom View

	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478			
PROD.	MP	11-16-09		PUSH-PULL TRANSFORMER, 20 - 200 kHz			
ENG.	JC	11-16-09					
Q.A.	BT	11-16-09	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A
REV.							DWG. NO. OS18BT28

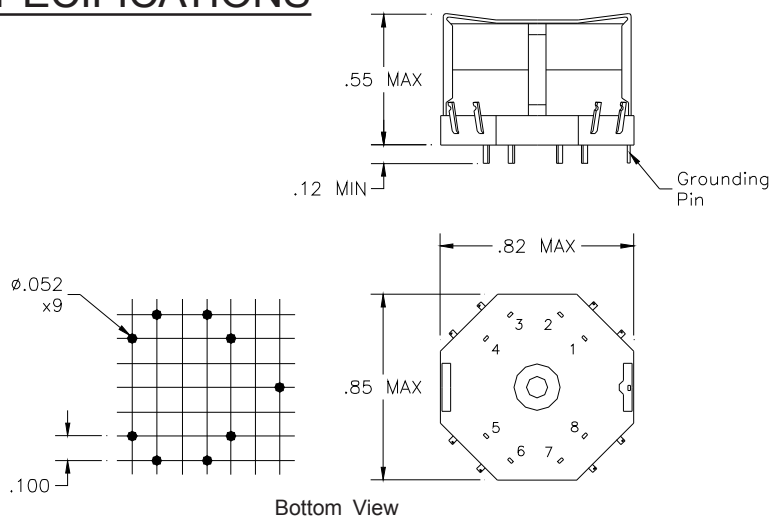
ELECTRICAL SPECIFICATIONS

T/R & Ø	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 15\%$
DCR		(3-2) ref.	1.00	.037
		(1-4)	1.36 Ø	.30
		(6-7)	5.00 Ø	1.1
L (3-2)	-	11.3 - 12.9 μH at 50 mVRMS, 30 kHz.		
Short Circuit L (3-2)	-	.340 μH TYP at 10 mVRMS, 300 kHz with 1,4,6,& 7 shorted.		
C	-	50 pF TYP at 5 VRMS, 100 kHz from 2&3-to-1,4,6,& 7.		
Duty Ratio	-	.50 MAX (Discontinuous Mode).		
f	-	100 kHz.		
Dielectric Strength	-	500 VDC, 5 μA MAX leakage from 3-to-1&6.		

SCHEMATIC DIAGRAM



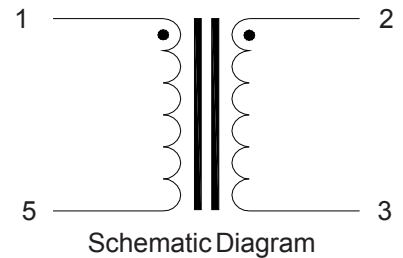
MECHANICAL SPECIFICATIONS



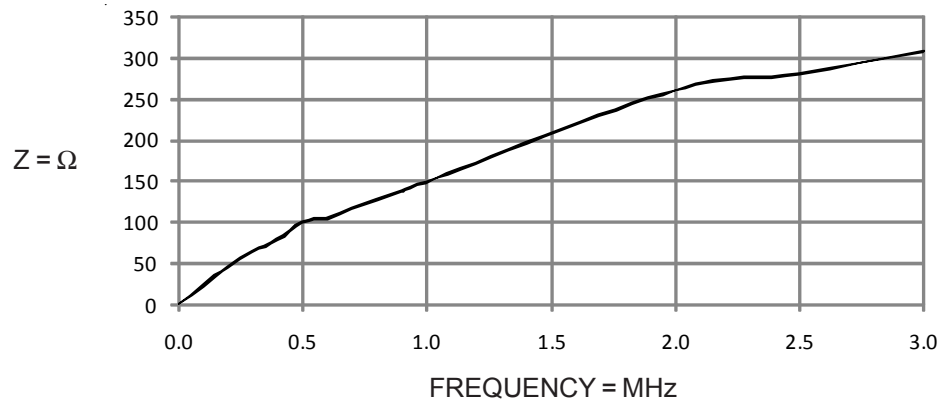
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	10-26-11		FLYBACK TRANSFORMER 12V TO 5V & 15V, 6.25 W				
ENG.	JC	10-26-11						
Q.A.	BT	10-26-11	TEST CONDITION 20° ± 5° C	DECIMALS (IN.) .XX = ± .03 .XXX = ± .010	VOLTS ±5%	FREQUENCY ±5%	SIZE A	DWG. NO. OS18YT32
REV.	A	10-26-11						

ELECTRICAL SPECIFICATIONS

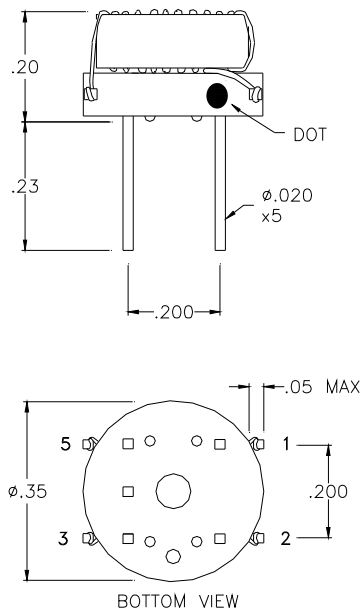
T/R	-	Winding	Turns Ratio $\pm 2\%$	DCR $\Omega \pm 10\%$
DCR	-	(1-5) ref.	1.000	.070
	-	(2-3)	1.000	.070
L (1-5) or (2-3)	-	32 $\mu\text{H} \pm 20\%$ at 1 VRMS, 500 kHz.		
L (1-5)	-	80 nH Typical at .2 VRMS, 1 MHz with (2-3) shorted.		
C	-	6 pF Typical at 5 VRMS, 500 kHz between (1-5) and (2-3).		



IMPEDANCE (Ω) vs. FREQUENCY (MHz) at 5 VRMS



MECHANICAL SPECIFICATIONS



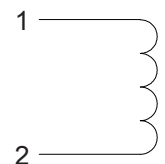
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	11-11-09		RF ISOLATION TRANSFORMER 0.5 - 3 MHz				
ENG.	JC	11-11-09						
Q.A.	BT	11-11-09	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
REV.				.XX = $\pm .03$.XXX = $\pm .010$	$\pm 5\%$	$\pm 5\%$	A	OT12DT36

ELECTRICAL SPECIFICATIONS

MCE P/N	L $\pm 10\%$ (μH)	DCR $\pm 15\%$ (Ω)
OT12QL28	2.5	.14
OT12QL36	3.5	.18

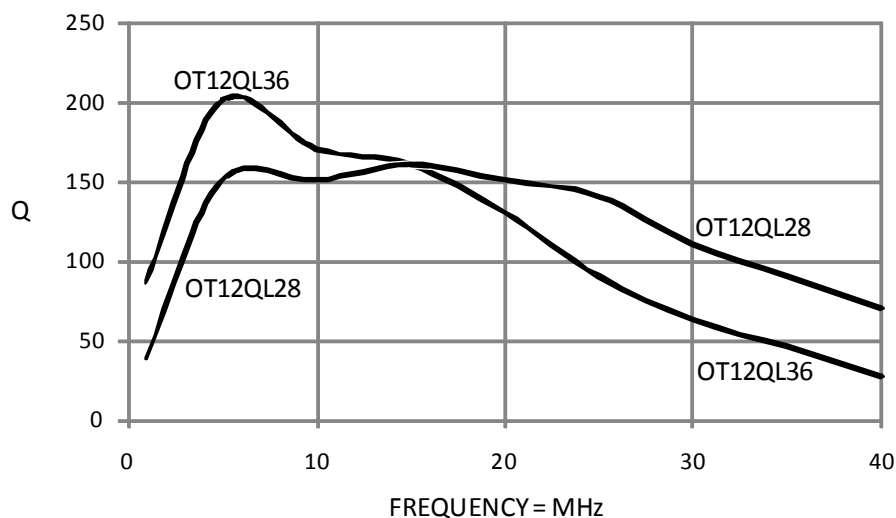
All electrical measurements made on HP4191A Impedance Analyzer.

80°C maximum part temperature recommended for long term stability.

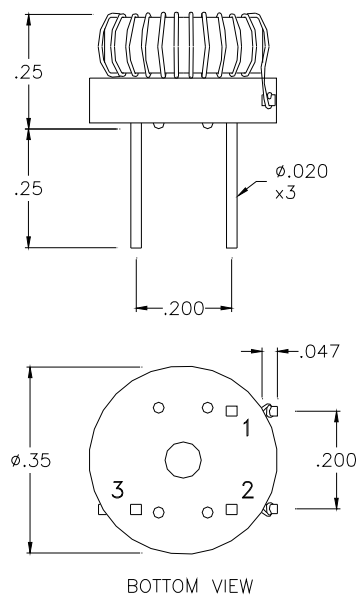


Schematic Diagram

TYPICAL Q vs. FREQUENCY CURVES



MECHANICAL SPECIFICATIONS



BOTTOM VIEW

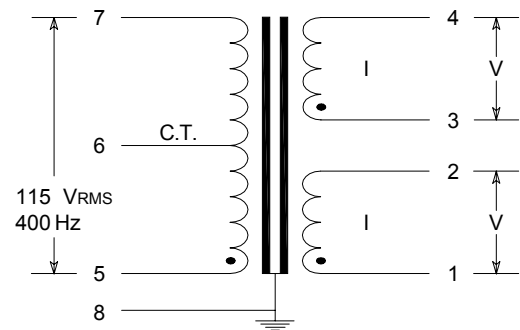
	INIT.	DATE	CAGE 09349	MAGNETIC CIRCUIT ELEMENTS INC. www.MCEmagnetics.com, ph. 831-757-8752, fax 831-757-5478				
PROD.	MP	11-3-09		IRON POWDER RF INDUCTORS				
ENG.	JC	11-3-09	TEST CONDITION 20° $\pm$ 5° C	DECIMALS (IN.)	VOLTS	FREQUENCY	SIZE	DWG. NO.
Q.A.	BT	11-3-09		.XX = $\pm .03$	$\pm 5\%$	$\pm 5\%$	A	OTQL
REV.				.XXX = $\pm .010$				

ELECTRICAL SPECIFICATIONS

SIZE	25RT	37RT	50RT	62RT	75RT	87RT	100RT
POWER - VA	2.4	12.6	25	50	70	120	215
REG. - %	10	10	6.3	4.3	2.4	1.7	1.6
R (5-7) - OHMS	285	50.3	16.4	5.74	2.26	.878	.474

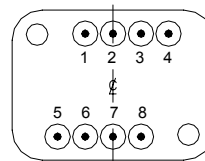
PART NUMBER	V RMS VOLTS	I RMS AMPS	TURNS RATIO ±2%	RESISTANCE - OHMS ±20%	
				(1-2)	(3-4)
25RT23	1.57	.765	.0151	.071	.086
25RT26	3.15	.380	.0308	.276	.338
25RT28	5.0	.240	.0481	.709	.865
25RT29	6.3	.190	.0605	1.08	1.33
25RT30	8.0	.150	.0773	1.75	2.13
25RT31	10.0	.120	.0962	2.84	3.46
25RT32	12.6	.095	.1211	4.45	5.45
25RT33	16	.075	.1546	6.93	8.47
25RT34	20	.060	.1924	11.5	13.9
25RT35	25	.048	.2405	18.2	22.3
25RT36	32	.038	.3092	28.7	35.1
25RT37	40	.030	.3849	45	55
25RT38	50	.024	.4811	71	87
25RT39	64	.019	.6184	117	143
37RT21	3.15	2.00	.0301	.058	.068
37RT23	5.0	1.26	.0486	.140	.164
37RT24	6.3	1.00	.0602	.223	.263
37RT25	8.0	.788	.0764	.347	.409
37RT26	10.0	.630	.0972	.570	.650
37RT27	12.6	.500	.1203	.870	1.01
37RT28	16	.394	.1527	1.40	1.64
37RT29	20	.315	.1944	2.24	2.66
37RT30	25	.252	.2430	3.5	4.2
37RT31	32	.197	.3054	5.6	6.6
37RT32	40	.157	.3887	9.0	10.5
37RT33	50	.126	.4859	14.2	16.6
37RT34	64	.099	.6109	22.5	26.3
50RT17	3.15	4.00	.0292	.020	.022
50RT19	5.0	2.50	.0474	.050	.056
50RT20	6.3	1.95	.0584	.072	.081
50RT21	8.0	1.56	.0748	.118	.133
50RT22	10.0	1.25	.0949	.183	.206
50RT23	12.6	1.00	.1167	.279	.317
50RT24	16	.780	.1496	.460	.520
50RT25	20	.630	.1897	.720	.810
50RT26	25	.500	.2371	1.15	1.31
50RT27	32	.390	.2991	1.80	2.04
50RT28	40	.310	.3794	2.92	3.30
50RT29	50	.250	.4742	4.60	5.20
50RT30	64	.195	.5983	7.27	8.23
62RT16	5.0	5.00	.0452	.020	.021
62RT17	6.3	4.00	.0572	.029	.031
62RT18	8.0	3.10	.0753	.047	.050
62RT19	10.0	2.50	.0904	.068	.073
62RT20	12.6	2.00	.1144	.104	.114
62RT21	16	1.60	.1506	.176	.192
62RT22	20	1.25	.1807	.259	.282
62RT23	25	1.00	.2259	.398	.434
62RT24	32	.780	.3012	.680	.740
62RT25	40	.630	.3614	1.02	1.11
62RT26	50	.500	.4518	1.63	1.78
62RT27	64	.400	.6024	2.73	2.96
75RT16	10.0	3.50	.0901	.030	.033
75RT17	12.6	2.80	.1126	.044	.049
75RT18	16	2.20	.1441	.070	.078
75RT19	20	1.75	.1802	.106	.119
75RT20	25	1.40	.2252	.164	.182
75RT21	32	1.13	.2882	.265	.340
75RT22	40	.875	.3603	.410	.460
75RT23	50	.700	.4504	.640	.710
75RT24	64	.550	.5765	1.04	1.16
87RT16	20	3.00	.1818	.046	.049
87RT17	25	2.40	.2273	.069	.073
87RT18	32	1.90	.2857	.107	.114
87RT19	40	1.50	.3636	.167	.179
87RT20	50	1.20	.4545	.259	.276
87RT21	64	.950	.5714	.413	.452
100RT15	25	4.30	.2241	.041	.044
100RT16	32	3.50	.2845	.063	.066
100RT17	40	2.70	.3534	.094	.100
100RT18	50	2.15	.4483	.149	.157
100RT19	64	1.70	.5690	.234	.246

SCHEMATIC

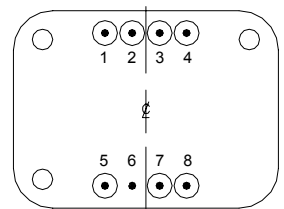


TERMINAL / LEAD LOCATION

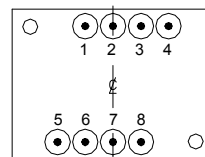
EA SIZES 25-37



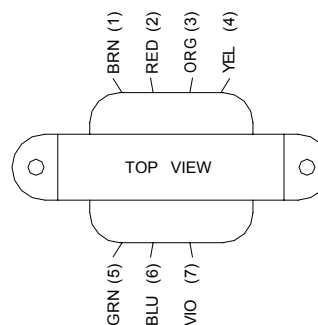
EA SIZES 50-100



CA SIZES 25-37



OB SIZES 25-100



NOTES

- Power and secondary voltage (VRMS) ratings are for both secondaries carrying rated current (IRMS). The two secondaries may be connected in series to give twice the rated voltage (VRMS) at the rated current (IRMS) with a center-tap available. They are also based upon a regulation of 10% or a temperature rise of 25°C above an ambient of 25°C.
- Dielectric withstanding voltage is 500 VRMS, 60 Hz.
- All of these parts are available in any of the MCE Miniature Line package options (see EA, CA, & OB Packaging Bulletins), and printed circuit board bobbins as modified standard parts.

	INIT.	DATE	CAGE	MAGNETIC CIRCUIT ELEMENTS INC.			
PROD.	<i>MP</i>	8-22-06	09349	115 V - 400 Hz TRANSFORMERS			
ENG.	<i>JC</i>	8-22-06					
Q.A.	<i>BT</i>	8-22-06	TEST CONDITION 20° ± 5° C	DECIMALS .XX = ± .03 .XXX = ± 0.10	VOLTS ±5%	FREQUENCY ±5%	DWG. NO. RT
REV.	B	8-22-06					

APPLICATION FEATURES

Reliability - Simple circuit. Short circuit protected. 130°C rated.

Low

Harmonics - The sine wave is generated directly instead of square wave with load sensitive filters. Subsequently, low noise in DC line and low EMI.

Self

Switching - Minimizes transistor losses.

Flexibility - Through-holes permit terminal side to be mounted against or opposite mounting surfaces.

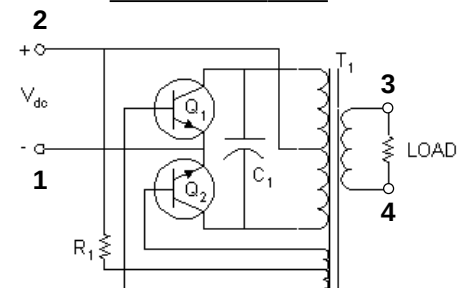


ELECTRICAL SPECIFICATIONS

P/N	INPUT		OUTPUT		
	V _{DC}	mADC	V _{RMS}	mA _{RMS}	Hz
EA75SW86	28	480	115*	75	400

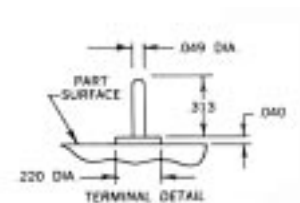
*Unregulated

SCHEMATIC



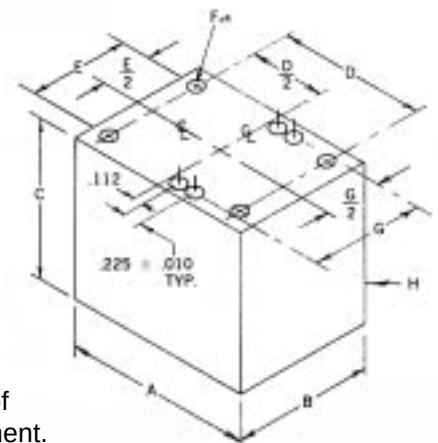
DESIGN FEATURES

1. Terminals are precision located for use with printed circuit boards.
2. Encapsulation cup is high-temperature glass-filled for physical stability.
3. Epoxy encapsulation material is resistant to thermal and mechanical stress.



MECHANICAL SPECIFICATIONS

CASE SIZE	WT. LBS.	OUTSIDE DIMENSIONS			MOUNTING DIM.		HOLE DIA.	TERM. DIM.	CASE RAD.
		A MAX	B MAX	C MAX	D ±.015	E ±.015	F ±.010	G ±.015	H (REF.)
75	.93	2.60	1.98	1.83	2.000	1.438	.185	1.562	.25



NOTES

1. Other voltages available as modified standard parts. Contact an MCE Application Engineer for further information.
2. If the terminals are inserted into a PC board, a 0.040 inch thick washer is available to level the part with the terminal shoulder. Add a 'W' to the end of the part number to include the washers as a separate item in the shipment.

PROD.	INIT.	DATE	TOLERANCES DECIMALS (IN.) .XX = ± 0.03 .XXX = ± 0.010 ANGLE = ± 0.5°	MAGNETIC CIRCUIT ELEMENTS INC. 		
				8.6 W, 115 V _{RMS} , 400 Hz SINE WAVE INVERTER		
ENG.	JC	1-13-04	CAGE 09349	DESCRIPTION ENCAPSULATED TYPE PARTS	SIZE A	DWG. NO. EA SW
Q.A.	BT	1-13-04				
REV.						