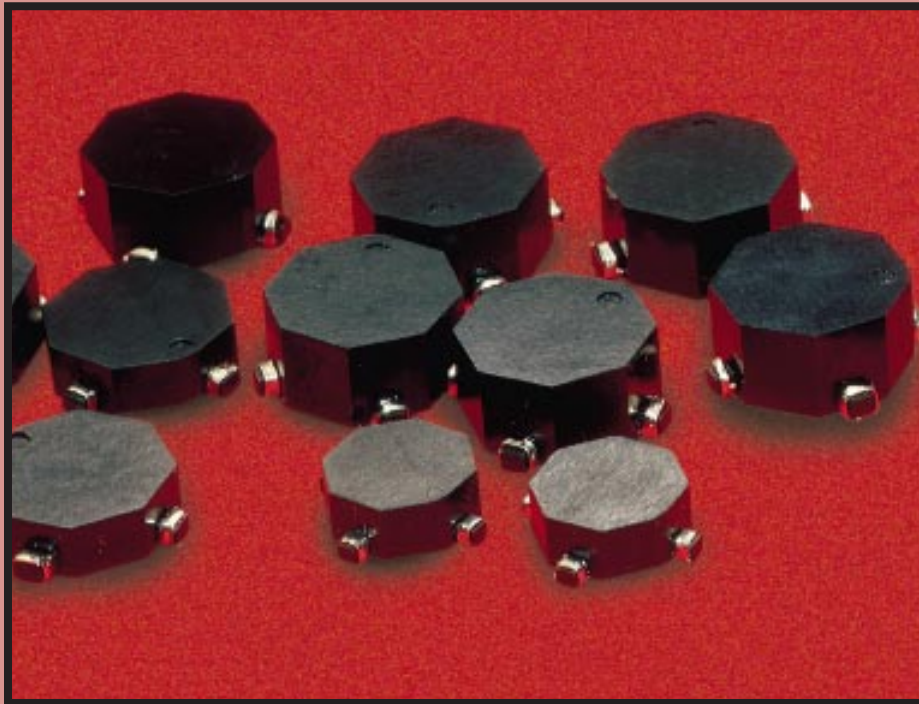




**COILTRONICS**  
INCORPORATED



***ECONO-PAC / OCTA-PAC***

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ECONO-PACs and OCTA-PACs are versatile surface mount magnetic devices that can be used in design applications as single inductors, coupled inductors, or 1:1 transformers providing isolation between the two windings. OCTA-PACs are designed around Kool-Mu™ material which allows maximum power density with lowest core losses. ECONO-PACs, lower cost versions of OCTA-PACs incorporating powdered iron cores, deliver frequency responses to several megaHertz.

Both products may be used in many engineering applications depending on their connection (see Connection Diagrams). When used as inductors, they provide low inductance with high current if wired in parallel, or higher inductance with lower current if wired in series. When used as 1:1 transformers, they provide electrical isolation and extremely wide voltage transformation in the flyback mode.

ECONO-PACs and OCTA-PACs are designed for easy use in any SMT sub-assembly manufacturing process. Supplied in tape and reel packaging, their cases make them ideal “pick-and-place” devices, and each pin #1 is marked for clear identification. ECONO-PACs and OCTA-PACs are suitable for normal exposure to infrared reflow soldering procedures.

Referenced Trademarks are property of their respective owners.

*Coiltronics designs and manufactures standard and custom product electromagnetic components. Contact the factory or your Coiltronics representative with your transformer and inductor requirements.*

## FEATURE - BENEFITS

- Maximum Power Density
- Engineered to Provide High Efficiency through Toroidal Design
- Application Versatility
  - 1:1 Coupled Inductors and
  - 1:1 Isolation Transformers
- Low EMI Radiation
- Models Available for Full Load Current Range of 0.22 to 7.90 ADC
- Available in Tape-and Reel Packaging for Pick-and-Place Utilization.

## PACKAGING INFORMATION

ECONO-PACs and OCTA-PACs are available in Tape Reel packaging. The number of devices per reel is dependent on the case size of the device.

Case Size	Quantity Per Reel
-1	1100
-2	800
-3	800
-4	600

## ENVIRONMENTAL SPECIFICATIONS

- Storage Temperature Range: -40°C to +125°C.
- Operating Ambient Temperature Range: -40°C to +85°C Range is application specific
- Infrared Reflow Temperature: +240°C for 30 seconds maximum

# ECONO-PAC™

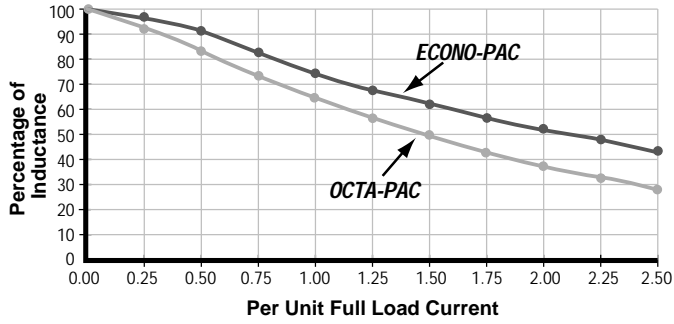
Coiltronics Part Number	PARALLEL				SERIES				A inches	B inches	C max inches	Weight Grams
	Open Circuit Inductance $\mu\text{H}$ +/-20%	Full Load Inductance $\mu\text{H}$ min.	Full Load Current Adc	DC Resistance ohms max.	Open Circuit Inductance $\mu\text{H}$ +/-20%	Full Load Inductance $\mu\text{H}$ min.	Full Load Current Adc	DC Resistance ohms max.				
CTX0.47-1P	.42	.31	5.50	.006	1.67	1.25	2.75	.022	.350	.450	.165	1.0
CTX0.68-1P	.60	.43	5.10	.007	2.40	1.74	2.55	.025				
CTX1-1P	1.07	.73	4.50	.008	4.28	2.92	2.25	.032				
CTX2-1P	2.02	1.36	3.40	.014	8.08	5.44	1.70	.054				
CTX5-1P	4.83	3.37	2.00	.041	19.31	13.47	1.00	.161				
CTX8-1P	8.08	5.31	1.80	.052	32.33	21.23	.90	.208				
CTX10-1P	9.62	6.23	1.70	.057	38.48	24.94	.85	.227				
CTX15-1P	15.03	9.62	1.40	.087	60.12	38.47	.70	.348				
CTX20-1P	20.46	14.12	1.00	.159	81.83	56.47	.50	.634				
CTX25-1P	25.40	17.07	.96	.177	101.60	68.29	.48	.708				
CTX33-1P	32.33	22.27	.80	.251	129.32	89.06	.40	1.001				
CTX50-1P	50.52	33.57	.70	.316	202.07	134.27	.35	1.263				
CTX68-1P	68.40	43.65	.66	.373	273.61	174.61	.33	1.490				
CTX100-1P	99.01	63.64	.54	.557	396.06	254.55	.27	2.227				
CTX150-1P	150.72	96.64	.44	.844	602.87	386.56	.22	3.376				
CTX200-1P	198.41	130.79	.36	1.208	793.65	523.16	.18	4.831				
CTX300-1P	299.87	190.05	.32	1.525	1199.46	760.19	.16	6.100				
CTX0.47-2P	.54	.42	5.90	.006	2.18	1.69	2.95	.024	.350	.450	.235	1.2
CTX0.68-2P	.85	.64	5.40	.008	3.40	2.55	2.70	.029				
CTX1-2P	1.22	.89	5.00	.009	4.90	3.57	2.50	.034				
CTX2-2P	2.18	1.56	3.90	.014	8.70	6.26	1.95	.056				
CTX5-2P	4.90	3.57	2.50	.032	19.58	14.26	1.25	.128				
CTX8-2P	7.65	5.31	2.30	.040	30.60	21.23	1.15	.159				
CTX10-2P	9.83	6.73	2.10	.045	39.30	26.92	1.05	.179				
CTX15-2P	14.99	10.51	1.60	.085	59.98	42.02	.80	.339				
CTX20-2P	19.58	13.37	1.50	.097	78.34	53.48	.75	.387				
CTX25-2P	24.79	16.60	1.40	.109	99.14	66.38	.70	.436				
CTX33-2P	32.67	21.29	1.30	.126	130.70	85.17	.65	.503				
CTX50-2P	49.10	35.31	.82	.306	196.38	141.24	.41	1.221				
CTX68-2P	68.85	47.93	.76	.362	275.40	191.71	.38	1.447				
CTX100-2P	99.14	69.56	.62	.541	396.58	278.22	.31	2.162				
CTX150-2P	148.10	100.07	.56	.666	592.42	400.27	.28	2.661				
CTX200-2P	201.59	138.49	.46	.951	806.34	553.97	.23	3.804				
CTX300-2P	300.42	197.52	.42	1.176	1201.70	790.08	.21	4.703				
CTX0.47-3P	.46	.35	6.20	.007	1.85	1.42	3.10	.025	.450	.550	.190	1.3
CTX0.68-3P	.67	.50	5.70	.008	2.66	1.98	2.85	.029				
CTX1-3P	.91	.65	5.40	.009	3.63	2.62	2.70	.033				
CTX2-3P	1.85	1.24	4.60	.012	7.40	4.97	2.30	.045				
CTX5-3P	4.74	3.04	3.20	.023	18.94	12.15	1.60	.090				
CTX8-3P	8.16	4.90	2.80	.030	32.63	19.60	1.40	.119				
CTX10-3P	9.79	5.71	2.70	.033	39.15	22.85	1.35	.132				
CTX15-3P	14.50	8.50	2.20	.050	58.02	34.01	1.10	.198				
CTX20-3P	20.15	13.12	1.50	.111	80.59	52.48	.75	.443				
CTX25-3P	25.33	16.16	1.40	.125	101.31	64.66	.70	.499				
CTX33-3P	32.63	20.32	1.30	.143	130.54	81.30	.65	.571				
CTX50-3P	50.02	33.06	.92	.277	200.10	132.24	.46	1.108				
CTX68-3P	68.84	44.15	.84	.328	275.35	176.61	.42	1.312				
CTX100-3P	101.31	65.50	.68	.502	405.22	262.02	.34	2.005				
CTX150-3P	149.85	90.92	.64	.621	599.40	363.68	.32	2.484				
CTX200-3P	200.10	116.51	.60	.732	800.38	466.03	.30	2.925				
CTX300-3P	298.39	172.12	.50	.926	1193.55	688.50	.25	3.702				
CTX0.47-4P	.49	.37	7.90	.005	1.95	1.49	3.95	.019	.450	.550	.250	2.0
CTX0.68-4P	.76	.56	7.20	.006	3.05	2.24	3.60	.023				
CTX1-4P	1.10	.81	5.90	.009	4.39	3.24	2.95	.034				
CTX2-4P	1.95	1.42	4.60	.014	7.81	5.69	2.30	.055				
CTX5-4P	5.15	3.56	3.30	.027	20.62	14.23	1.65	.107				
CTX8-4P	7.81	5.15	3.00	.033	31.23	20.61	1.50	.131				
CTX10-4P	9.88	6.70	2.50	.047	39.53	26.79	1.25	.187				
CTX15-4P	14.76	9.52	2.30	.057	59.05	38.09	1.15	.228				
CTX20-4P	20.62	13.44	1.90	.085	82.47	53.76	.95	.337				
CTX25-4P	25.65	17.17	1.60	.116	102.60	68.68	.80	.462				
CTX33-4P	33.21	22.93	1.30	.166	132.86	91.72	.65	.663				
CTX50-4P	48.80	32.21	1.20	.202	195.20	128.83	.60	.805				
CTX68-4P	67.37	43.04	1.10	.238	269.50	172.16	.55	.952				
CTX100-4P	99.09	69.54	.72	.565	396.38	278.15	.36	2.259				
CTX150-4P	149.45	101.46	.64	.696	597.80	405.83	.32	2.784				
CTX200-4P	200.11	131.37	.60	.810	800.44	525.47	.30	3.240				
CTX300-4P	298.93	188.03	.54	1.003	1195.72	752.13	.27	4.011				

# OCTA-PAC™

Coiltronics Part Number	PARALLEL				SERIES				A inches	B inches	C max inches	Weight Grams
	Open Circuit Inductance $\mu\text{H}$ +/-20%	Full Load Inductance $\mu\text{H}$ min.	Full Load Current Adc	DC Resistance ohms max.	Open Circuit Inductance $\mu\text{H}$ +/-20%	Full Load Inductance $\mu\text{H}$ min.	Full Load Current Adc	DC Resistance ohms max.				
CTX0.47-1	.40	.26	5.50	.005	1.60	1.05	2.75	.020	.350	.450	.165	1.0
CTX0.68-1	.63	.41	4.50	.006	2.50	1.63	2.25	.024				
CTX1-1	.90	.56	4.20	.007	3.60	2.24	2.10	.028				
CTX2-1	2.03	1.00	4.10	.011	8.10	4.01	2.05	.041				
CTX5-1	4.90	2.66	2.30	.031	19.60	10.64	1.15	.122				
CTX8-1	8.10	4.08	2.00	.040	32.40	16.34	1.00	.158				
CTX10-1	10.00	4.85	1.90	.044	40.00	19.40	.95	.176				
CTX15-1	14.40	8.74	1.10	.080	57.60	34.96	.55	.319				
CTX20-1	19.60	11.54	1.00	.146	78.40	46.15	.50	.584				
CTX25-1	25.60	16.35	.74	.167	102.40	65.42	.37	.667				
CTX33-1	32.40	19.84	.72	.293	129.60	79.37	.36	1.171				
CTX50-1	50.63	29.34	.64	.366	202.50	117.38	.32	1.462				
CTX68-1	67.60	39.73	.54	.517	270.40	158.92	.27	2.065				
CTX100-1	99.23	58.72	.44	.785	396.90	234.88	.22	3.137				
CTX150-1	148.23	85.16	.38	.966	592.90	340.64	.19	3.862				
CTX200-1	202.50	107.60	.37	1.142	810.00	430.39	.19	4.567				
CTX300-1	302.50	191.38	.22	1.432	1210.00	765.54	.11	5.725				
CTX0.47-2	.42	.29	6.50	.005	1.69	1.17	3.25	.019	.350	.450	.235	1.2
CTX0.68-2	.75	.50	5.50	.006	3.01	1.98	2.75	.024				
CTX1-2	1.18	.76	4.60	.008	4.70	3.04	2.30	.029				
CTX2-2	2.30	1.27	4.50	.010	9.21	5.07	2.25	.038				
CTX5-2	4.70	2.66	3.00	.021	18.80	10.65	1.50	.084				
CTX8-2	7.94	4.18	2.60	.027	31.77	16.72	1.30	.108				
CTX10-2	10.58	5.18	2.50	.032	42.30	20.72	1.25	.125				
CTX15-2	15.23	8.53	1.70	.059	60.91	34.10	.85	.237				
CTX20-2	20.73	12.36	1.30	.107	82.91	49.46	.65	.427				
CTX25-2	24.86	16.09	1.00	.117	99.45	64.35	.50	.466				
CRX33-2	31.77	15.90	1.40	.106	127.09	63.59	.70	.421				
CTX50-2	51.18	28.79	.92	.210	204.73	115.16	.46	.839				
CTX68-2	67.87	38.71	.78	.304	271.47	154.83	.39	1.214				
CTX100-2	99.45	57.45	.63	.458	397.81	229.79	.32	1.829				
CTX150-2	147.39	93.46	.43	.561	589.57	373.84	.22	2.242				
CTX200-2	198.58	122.94	.39	.796	794.30	491.76	.20	3.184				
CTX300-2	300.80	169.06	.38	1.233	1203.20	676.24	.19	4.929				
CTX0.47-3	.38	.27	6.00	.006	1.54	1.08	3.00	.021	.450	.550	.190	1.3
CTX0.68-3	.60	.42	5.00	.006	2.40	1.67	2.50	.024				
CTX1-3	.86	.57	4.80	.007	3.46	2.28	2.40	.028				
CTX2-3	1.94	1.05	4.70	.010	7.78	4.22	2.35	.040				
CTX5-3	4.70	2.56	3.00	.020	18.82	10.26	1.50	.077				
CTX8-3	7.78	3.74	2.80	.025	31.10	14.98	1.40	.100				
CTX10-3	9.60	4.38	2.70	.028	38.40	17.54	1.35	.112				
CTX15-3	15.00	7.26	2.00	.043	60.00	29.06	1.00	.172				
CTX20-3	20.18	10.76	1.50	.078	80.74	43.04	.75	.312				
CTX25-3	24.58	15.64	.98	.087	98.30	62.56	.49	.346				
CTX33-3	32.86	19.69	.96	.083	131.42	78.77	.48	.331				
CTX50-3	50.78	27.18	.94	.240	203.14	108.71	.47	.957				
CTX68-3	67.42	36.53	.80	.278	269.66	146.11	.40	1.109				
CTX100-3	101.40	52.48	.70	.346	405.60	209.93	.35	1.381				
CTX150-3	149.78	97.16	.38	.430	599.14	388.63	.19	1.718				
CTX200-3	198.74	119.18	.39	.619	794.98	476.71	.20	2.475				
CTX300-3	301.06	157.44	.40	.951	1204.22	629.75	.20	3.804				
CTX0.47-4	.44	.32	7.00	.004	1.76	1.29	3.50	.016	.450	.550	.250	2.0
CTX0.68-4	.78	.55	6.00	.005	3.14	2.21	3.00	.020				
CTX1-4	1.23	.85	5.00	.006	4.90	3.41	2.50	.024				
CTX2-4	1.76	1.06	5.90	.007	7.06	4.24	2.95	.028				
CTX5-4	4.90	2.59	4.40	.014	19.60	10.37	2.20	.056				
CTX8-4	8.28	4.29	3.50	.019	33.12	17.14	1.75	.073				
CTX10-4	9.60	4.82	3.40	.020	38.42	19.28	1.70	.079				
CTX15-4	14.16	6.76	3.00	.024	56.64	27.03	1.50	.096				
CTX20-4	19.60	10.68	2.10	.055	78.40	42.73	1.05	.220				
CTX25-4	25.92	13.32	2.00	.064	103.68	53.27	1.00	.254				
CTX33-4	33.12	16.82	1.80	.072	132.50	67.27	.90	.288				
CTX50-4	50.18	25.03	1.50	.111	200.70	100.11	.75	.444				
CTX68-4	67.08	35.29	1.20	.158	268.32	141.15	.60	.630				
CTX100-4	99.23	54.56	.92	.303	396.90	218.25	.46	1.210				
CTX150-4	148.23	77.17	.82	.372	592.90	308.69	.41	1.488				
CTX200-4	200.70	111.08	.64	.545	802.82	444.32	.32	2.180				
CTX300-4	298.12	147.92	.62	.672	1192.46	591.66	.31	2.687				

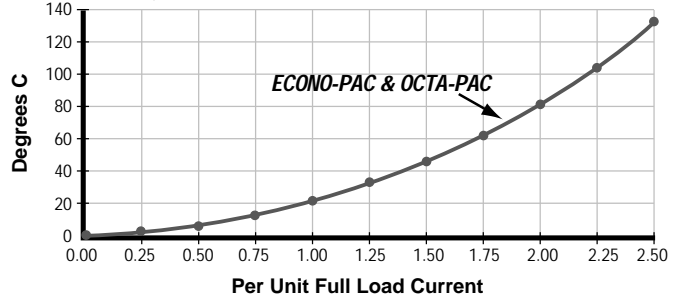
# PERFORMANCE CHARACTERISTICS

## INDUCTANCE VS. CURRENT

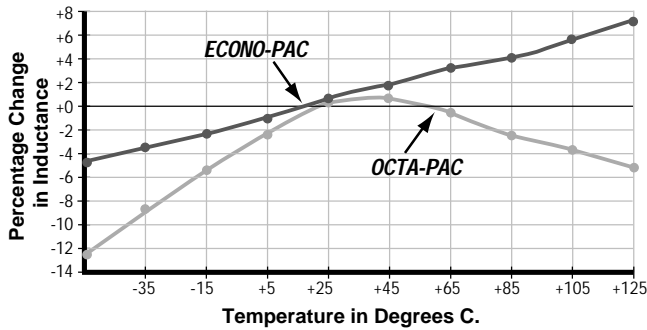


## TEMPERATURE RISE VS. RATED CURRENT

Max. Ambient plus Rise = 125°C



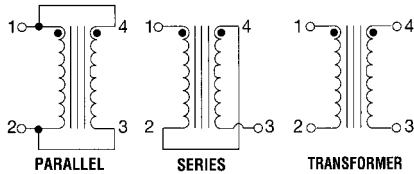
## INDUCTANCE VS. TEMPERATURE



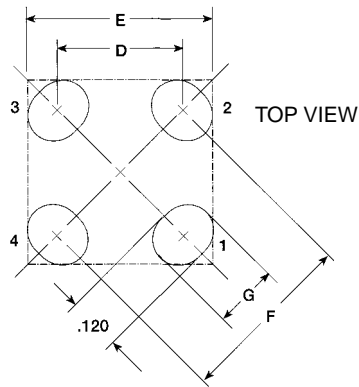
- INDUCTANCE VS. CURRENT:**  
 Inductance will fall off as DC Current is increased. (See Inductance vs. Current graph).
- INDUCTANCE VS. FREQUENCY:**  
 Inductance roll-off versus Frequency approximates 3% at 1 megaHertz.
- FREQUENCY RESPONSE:**  
 Wide-band frequency response to 1 megaHertz.
- CURRENT LIMITATION:**  
 The maximum allowable currents are defined by the internal "hot-spot" temperatures which are limited to 130°C, including ambient.

Specifications are typical except where noted and subject to change without notice.

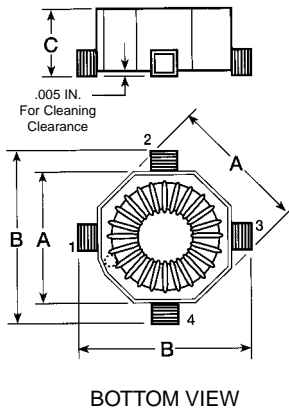
## CONNECTION DIAGRAMS



## RECOMMENDED LAYOUT



## MECHANICAL DIAGRAM



Case Size	D	E	F	G
-1	.277	.422	.392	.145
-2	.277	.422	.392	.145
-3	.348	.492	.492	.160
-4	.348	.492	.492	.160

Dimensions in inches, typical





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