



# THE DATASHEET OF CTX50-1



# ECONO-PAC™ /OCTA-PAC® OCTA-PAC® PLUS

## Dual winding toroid power inductors/transformers



### Product features

- Surface mount magnetics that can be used as single or coupled inductors or 1:1 transformers that provide isolation between two windings
- OCTA-PAC's are designed around high frequency, low loss core material
- ECONO-PAC's are a lower cost version of OCTA-PAC's offering high saturation flux density, Iron powder core material
- OCTA-PAC PLUS's offer higher current ratings and higher saturation flux densities than OCTA-PAC and ECONO-PAC, Amorphous metal core material
- Secure 4 Terminal Mounting
- Inductor more versatile inductance combination by series or parallel connections

### Applications

- Computer and portable power devices
- LCD panels, DVD players
- Inductor: DC-DC converters
- Buck, boost, forward, and resonant converters
- Noise filtering and filter chokes
- Transformers: 1:1 300 Vdc isolation, flyback, sepic

### Part number

- CTX\_\_\_-\_\_-R(First three digits CTX; Second 2-3 digits = Inductance Value; Last 1-2 digits, product size & type)
- -R indicates RoHS compliant

### Product size/type

- CTX\_\_\_-1 (-1 = size; no suffix = OCTA-PAC®)
- CTX\_\_\_-1P (-1 = size; P suffix = ECONO-PAC™)
- CTX\_\_\_-1A (-1 = size; A suffix = OCTA-PAC® PLUS)

### Environmental data

- Storage temperature range (component): -40 °C to +125 °C
- Operating temperature range: -40 °C to +125 °C (ambient plus self-temperature rise)
- Solder reflow temperature: J-STD-020 (latest revision) compliant



Octa-Pac Plus  
(-1A, -2A, -3A)  
discontinued October 31,  
2017 or until inventory is  
depleted.



Powering Business Worldwide

Part Number	PARALLEL				SERIES			
	Open Circuit Inductance μH +/-20%	Full Load Inductance μH min.	Full Load Current A dc	DC Resistance ohms max.	Open Circuit Inductance μH +/-20%	Full Load Inductance μH min.	Full Load Current A dc	DC Resistance ohms max.
CTX0.47-1P-R	.42	.31	5.50	.005	1.67	1.25	2.75	.021
CTX0.68-1P-R	.60	.43	5.10	.006	2.40	1.74	2.55	.025
CTX1-1P-R	1.07	.73	4.50	.008	4.28	2.92	2.25	.032
CTX2-1P-R	2.02	1.36	3.40	.013	8.08	5.44	1.70	.054
CTX5-1P-R	4.83	3.37	2.00	.040	19.31	13.47	1.00	.161
CTX8-1P-R	8.08	5.31	1.80	.052	32.33	21.23	.90	.207
CTX10-1P-R	9.62	6.23	1.70	.057	38.48	24.94	.85	.227
CTX15-1P-R	15.03	9.62	1.40	.087	60.12	38.47	.70	.348
CTX20-1P-R	20.46	14.12	1.00	.158	81.83	56.47	.50	.634
CTX25-1P-R	25.40	17.07	.96	.177	101.60	68.29	.48	.708
CTX33-1P-R	32.33	22.27	.80	.250	129.32	89.06	.40	1.001
CTX50-1P-R	50.52	33.57	.70	.316	202.07	134.27	.35	1.263
CTX68-1P-R	68.40	43.65	.66	.373	273.61	174.61	.33	1.490
CTX100-1P-R	99.01	63.64	.54	.557	396.06	254.55	.27	2.227
CTX150-1P-R	150.72	96.64	.44	.844	602.87	386.56	.22	3.376
CTX200-1P-R	198.41	130.79	.36	1.208	793.65	523.16	.18	4.831
CTX300-1P-R	299.87	190.05	.32	1.525	1199.46	760.19	.16	6.100
CTX0.47-2P-R	.54	.42	5.90	.006	2.18	1.69	2.95	.024
CTX0.68-2P-R	.85	.64	5.40	.007	3.40	2.55	2.70	.029
CTX1-2P-R	1.22	.89	5.00	.008	4.90	3.57	2.50	.033
CTX2-2P-R	2.18	1.56	3.90	.014	8.70	6.26	1.95	.055
CTX5-2P-R	4.90	3.57	2.50	.032	19.58	14.26	1.25	.128
CTX8-2P-R	7.65	5.31	2.30	.040	30.60	21.23	1.15	.158
CTX10-2P-R	9.83	6.73	2.10	.045	39.30	26.92	1.05	.179
CTX15-2P-R	14.99	10.51	1.60	.085	59.98	42.02	.80	.339
CTX20-2P-R	19.58	13.37	1.50	.097	78.34	53.48	.75	.387
CTX25-2P-R	24.79	16.60	1.40	.109	99.14	66.38	.70	.436
CTX33-2P-R	32.67	21.29	1.30	.126	130.70	85.17	.65	.503
CTX50-2P-R	49.10	35.31	.82	.305	196.38	141.24	.41	1.221
CTX68-2P-R	68.85	47.93	.76	.362	275.40	191.71	.38	1.445
CTX100-2P-R	99.14	69.56	.62	.541	396.58	278.22	.31	2.162
CTX150-2P-R	148.10	100.07	.56	.665	592.42	400.27	.28	2.660
CTX200-2P-R	201.59	138.49	.46	.951	806.34	553.97	.23	3.804
CTX300-2P-R	300.42	197.52	.42	1.176	1201.70	790.08	.21	4.703
CTX0.47-3P-R	.46	.35	6.20	.006	1.85	1.42	3.10	.025
CTX0.68-3P-R	.67	.50	5.70	.007	2.66	1.98	2.85	.028
CTX1-3P-R	.91	.65	5.40	.008	3.63	2.62	2.70	.032
CTX2-3P-R	1.85	1.24	4.60	.011	7.40	4.97	2.30	.045
CTX5-3P-R	4.74	3.04	3.20	.022	18.94	12.15	1.60	.090
CTX8-3P-R	8.16	4.90	2.80	.030	32.63	19.60	1.40	.119
CTX10-3P-R	9.79	5.71	2.70	.033	39.15	22.85	1.35	.131
CTX15-3P-R	14.50	8.50	2.20	.050	58.02	34.01	1.10	.198
CTX20-3P-R	20.15	13.12	1.50	.111	80.59	52.48	.75	.443
CTX25-3P-R	25.33	16.16	1.40	.125	101.31	64.66	.70	.499
CTX33-3P-R	32.63	20.32	1.30	.146	130.54	81.30	.65	.571
CTX50-3P-R	50.02	33.06	.92	.277	200.10	132.24	.46	1.108
CTX68-3P-R	68.84	44.15	.84	.328	275.35	176.61	.42	1.312
CTX100-3P-R	101.31	65.50	.68	.501	405.22	262.02	.34	2.005
CTX150-3P-R	149.85	90.92	.64	.621	599.40	363.68	.32	2.483
CTX200-3P-R	200.10	116.51	.60	.731	800.38	466.03	.30	2.925
CTX300-3P-R	298.39	172.12	.50	.926	1193.55	688.50	.25	3.702
CTX0.47-4P-R	.49	.37	7.90	.005	1.95	1.49	3.95	.019
CTX0.68-4P-R	.76	.56	7.20	.006	3.05	2.24	3.60	.023
CTX1-4P-R	1.10	.81	5.90	.008	4.39	3.24	2.95	.033
CTX2-4P-R	1.95	1.42	4.60	.014	7.81	5.69	2.30	.055
CTX5-4P-R	5.15	3.56	3.30	.027	20.62	14.23	1.65	.107
CTX8-4P-R	7.81	5.15	3.00	.033	31.23	20.61	1.50	.131
CTX10-4P-R	9.88	6.70	2.50	.047	39.53	26.79	1.25	.187
CTX15-4P-R	14.76	9.52	2.30	.057	59.05	38.09	1.15	.228
CTX20-4P-R	20.62	13.44	1.90	.084	82.47	53.76	.95	.337
CTX25-4P-R	25.65	17.17	1.60	.115	102.60	68.68	.80	.461
CTX33-4P-R	33.21	22.93	1.30	.166	132.86	91.72	.65	.662
CTX50-4P-R	48.80	32.21	1.20	.201	195.20	128.83	.60	.805
CTX68-4P-R	67.37	43.04	1.10	.238	269.50	172.16	.55	.952
CTX100-4P-R	99.09	69.54	.72	.565	396.38	278.15	.36	2.259
CTX150-4P-R	149.45	101.46	.64	.696	597.80	405.83	.32	2.784
CTX200-4P-R	200.11	131.37	.60	.810	800.44	525.47	.30	3.240
CTX300-4P-R	298.93	188.03	.54	1.003	1195.72	752.13	.27	4.011

Part Number	PARALLEL				SERIES			
	Open Circuit Inductance $\mu\text{H}$ $\pm 20\%$	Full Load Inductance $\mu\text{H}$ min.	Full Load Current Adc	DC Resistance ohms max.	Open Circuit Inductance $\mu\text{H}$ $\pm 20\%$	Full Load Inductance $\mu\text{H}$ min.	Full Load Current Adc	DC Resistance ohms max.
CTX0.47-1-R	.40	.26	5.50	.005	1.60	1.05	2.75	.020
CTX0.68-1-R	.63	.41	4.50	.006	2.50	1.63	2.25	.024
CTX1-1-R	.90	.56	4.20	.007	3.60	2.24	2.10	.028
CTX2-1-R	2.03	1.00	4.10	.010	8.10	4.01	2.05	.040
CTX5-1-R	4.90	2.66	2.30	.030	19.60	10.64	1.15	.122
CTX8-1-R	8.10	4.08	2.00	.039	32.40	16.34	1.00	.157
CTX10-1-R	10.00	4.85	1.90	.044	40.00	19.40	.95	.176
CTX15-1-R	14.40	8.74	1.10	.080	57.60	34.96	.55	.319
CTX20-1-R	19.60	11.54	1.00	.146	78.40	46.15	.50	.583
CTX25-1-R	25.60	16.35	.74	.167	102.40	65.42	.37	.668
CTX33-1-R	32.40	19.84	.72	.293	129.60	79.37	.36	1.171
CTX50-1-R	50.63	29.34	.64	.365	202.50	117.38	.32	1.461
CTX68-1-R	67.60	39.73	.54	.516	270.40	158.92	.27	2.064
CTX100-1-R	99.23	58.72	.44	.784	396.90	234.88	.22	3.137
CTX150-1-R	148.23	85.16	.38	.965	592.90	340.64	.19	3.861
CTX200-1-R	202.50	107.60	.37	1.142	810.00	430.39	.19	4.567
CTX300-1-R	302.50	191.38	.22	1.431	1210.00	765.54	.11	5.724
CTX0.47-2-R	.42	.29	6.50	.005	1.69	1.17	3.25	.019
CTX0.68-2-R	.75	.50	5.50	.006	3.01	1.98	2.75	.024
CTX1-2-R	1.18	.76	4.60	.007	4.70	3.04	2.30	.028
CTX2-2-R	2.30	1.27	4.50	.010	9.21	5.07	2.25	.038
CTX5-2-R	4.70	2.66	3.00	.021	18.80	10.65	1.50	.084
CTX8-2-R	7.94	4.18	2.60	.027	31.77	16.72	1.30	.108
CTX10-2-R	10.58	5.18	2.50	.031	42.30	20.72	1.25	.125
CTX15-2-R	15.23	8.53	1.70	.059	60.91	34.10	.85	.236
CTX20-2-R	20.73	12.36	1.30	.107	82.91	49.46	.65	.426
CTX25-2-R	24.86	16.09	1.00	.117	99.45	64.35	.50	.466
CTX33-2-R	31.77	15.90	1.40	.105	127.09	63.59	.70	.420
CTX50-2-R	51.18	28.79	.92	.210	204.73	115.16	.46	.839
CTX68-2-R	67.87	38.71	.78	.303	271.47	154.83	.39	1.214
CTX100-2-R	99.45	57.45	.63	.457	397.81	229.79	.32	1.828
CTX150-2-R	147.39	93.46	.43	.560	589.57	373.84	.22	2.241
CTX200-2-R	198.58	122.94	.39	.796	794.30	491.76	.20	3.184
CTX300-2-R	300.80	169.06	.38	1.231	1203.20	676.24	.19	4.929
CTX0.47-3-R	.38	.27	6.00	.005	1.54	1.08	3.00	.020
CTX0.68-3-R	.60	.42	5.00	.006	2.40	1.67	2.50	.024
CTX1-3-R	.86	.57	4.80	.007	3.46	2.28	2.40	.028
CTX2-3-R	1.94	1.05	4.70	.010	7.78	4.22	2.35	.040
CTX5-3-R	4.70	2.56	3.00	.019	18.82	10.26	1.50	.077
CTX8-3-R	7.78	3.74	2.80	.025	31.10	14.98	1.40	.099
CTX10-3-R	9.60	4.38	2.70	.028	38.40	17.54	1.35	.111
CTX15-3-R	15.00	7.26	2.00	.043	60.00	29.06	1.00	.172
CTX20-3-R	20.18	10.76	1.50	.078	80.74	43.04	.75	.312
CTX25-3-R	24.58	15.64	.98	.086	98.30	62.56	.49	.346
CTX33-3-R	32.86	19.69	.96	.083	131.42	78.77	.48	.331
CTX50-3-R	50.78	27.18	.94	.239	203.14	108.71	.47	.956
CTX68-3-R	67.42	36.53	.80	.277	269.66	146.11	.40	1.109
CTX100-3-R	101.40	52.48	.70	.345	405.60	209.93	.35	1.381
CTX150-3-R	149.78	97.16	.38	.430	599.14	388.63	.19	1.718
CTX200-3-R	198.74	119.18	.39	.619	794.98	476.71	.20	2.475
CTX300-3-R	301.06	157.44	.40	.951	1204.22	629.75	.20	3.083
CTX0.47-4-R	.44	.32	7.00	.004	1.76	1.29	3.50	.016
CTX0.68-4-R	.78	.55	6.00	.005	3.14	2.21	3.00	.020
CTX1-4-R	1.23	.85	5.00	.006	4.90	3.41	2.50	.024
CTX2-4-R	1.76	1.06	4.90	.007	7.06	4.24	2.45	.028
CTX5-4-R	4.90	2.59	4.40	.014	19.60	10.37	2.20	.056
CTX8-4-R	8.28	4.29	3.50	.018	33.12	17.14	1.75	.072
CTX10-4-R	9.60	4.82	3.40	.019	38.42	19.28	1.70	.078
CTX15-4-R	14.16	6.76	3.00	.024	56.64	27.03	1.50	.096
CTX20-4-R	19.60	10.68	2.10	.055	78.40	42.73	1.05	.220
CTX25-4-R	25.92	13.32	2.00	.063	103.68	53.27	1.00	.253
CTX33-4-R	33.12	16.82	1.80	.072	132.50	67.27	.90	.287
CTX50-4-R	50.18	25.03	1.50	.111	200.70	100.11	.75	.443
CTX68-4-R	67.08	35.29	1.20	.157	268.32	141.15	.60	.630
CTX100-4-R	99.23	54.56	.92	.302	396.90	218.25	.46	1.210
CTX150-4-R	148.23	77.17	.82	.372	592.90	308.69	.41	1.488
CTX200-4-R	200.70	111.08	.64	.545	802.82	444.32	.32	2.180
CTX300-4-R	298.12	147.92	.62	.672	1192.46	591.66	.31	2.687

Part Number	Parallel Ratings						Series Ratings				
	Rated Inductance (µH)	OCL (1) nominal +/-25% (µH)	I sat. (2) Amperes Peak	I rms. (3) Amperes	DCR Ω (4) max. @ 20°C.	Volt (7) µ-Sec	OCL (1) nominal +/-25% (µH)	I sat. (2) Amperes Peak	I rms. (3) Amperes	DCR Ω (4) max. @ 20°C.	Volt (7) µ-Sec
CTX0.33-1A-R	0.33	0.402	12.5	10.0	0.0037	.93	1.61	6.25	4.98	0.015	1.86
CTX0.68-1A-R	0.68	0.752	9.4	9.0	0.0046	1.24	3.01	4.69	4.48	0.0185	2.49
CTX1-1A-R	1.0	1.18	7.5	7.26	0.0070	1.55	4.70	3.75	3.63	0.0282	3.11
CTX2-1A-R	2.0	2.30	5.36	5.64	0.012	2.17	9.21	2.68	2.82	0.0470	4.35
CTX5-1A-R	5.0	4.70	3.75	4.27	0.020	3.11	18.8	1.88	2.13	0.082	6.21
CTX8-1A-R	8.0	7.94	2.88	3.37	0.033	4.04	31.77	1.44	1.69	0.130	8.08
CTX10-1A-R	10.0	10.58	2.5	2.84	0.046	4.66	42.30	1.25	1.42	0.183	9.32
CTX15-1A-R	15.0	15.23	2.08	2.07	0.087	5.59	60.91	1.04	1.03	0.348	11.2
CTX20-1A-R	20.0	20.73	1.79	1.71	0.127	6.52	82.91	0.89	0.86	0.507	13.0
CTX25-1A-R	25.0	24.86	1.63	1.46	0.173	7.14	99.45	0.82	0.73	0.693	14.3
CTX33-1A-R	33.0	34.26	1.39	1.22	0.249	8.39	137.1	0.61	0.61	0.95	16.8
CTX50-1A-R	50.0	51.18	1.14	0.99	0.381	10.3	204.7	0.57	0.49	1.24	20.5
CTX68-1A-R	68.0	67.87	0.99	0.92	0.437	11.8	271.3	0.49	0.46	1.749	23.6
CTX100-1A-R	100.0	99.45	0.82	0.74	0.686	14.3	397.8	0.41	0.37	2.745	28.6
CTX150-1A-R	150.0	147.4	0.67	0.67	0.832	17.4	589.6	0.33	0.33	3.329	34.8
CTX200-1A-R	200.0	198.6	0.58	0.62	0.967	20.2	794.3	0.29	0.31	3.854	40.4
CTX300-1A-R	300.0	300.8	0.47	0.56	1.181	24.9	1203	0.23	0.24	4.726	49.7
CTX0.33-2A-R	0.33	0.284	18.8	11.9	0.0033	.85	1.14	9.38	5.47	0.0132	1.71
CTX0.68-2A-R	0.68	0.675	12.5	9.4	0.0045	1.23	2.70	6.25	4.68	0.0180	2.56
CTX1-2A-R	1.0	1.26	9.38	8.22	0.0058	1.71	5.06	4.69	4.11	0.0233	3.42
CTX2-2A-R	2.0	1.9	7.50	6.74	0.0090	2.14	11.90	3.75	3.37	0.035	4.27
CTX5-2A-R	5.0	5.06	4.69	4.64	0.021	3.12	20.22	2.34	2.17	0.084	6.84
CTX8-2A-R	8.0	7.90	3.75	3.50	0.032	4.27	31.60	1.88	1.75	0.129	8.55
CTX10-2A-R	10.0	11.38	3.13	2.89	0.047	5.13	45.50	1.56	1.45	0.188	10.3
CTX15-2A-R	15.0	15.48	2.68	2.69	0.054	5.98	61.94	1.34	1.35	0.218	12.0
CTX20-2A-R	20.0	21.22	2.34	2.24	0.078	6.84	80.90	1.17	1.12	0.313	13.7
CTX25-2A-R	25.0	25.60	2.08	1.89	0.111	7.69	102.38	1.04	0.94	0.443	15.4
CTX33-2A-R	33.0	34.84	1.79	1.56	0.162	8.97	139.4	0.89	0.78	0.649	17.9
CTX50-2A-R	50.0	49.38	1.50	1.28	0.240	10.7	197.5	0.75	0.64	0.961	21.4
CTX68-2A-R	68.0	66.14	1.29	1.07	0.342	12.4	265.8	0.65	0.54	1.367	24.8
CTX100-2A-R	100.0	102.38	1.04	0.75	0.695	15.4	409.5	0.52	0.38	2.778	30.8
CTX150-2A-R	150.0	152.9	0.85	0.68	0.842	18.8	611.8	0.43	0.34	3.366	37.6
CTX200-2A-R	200.0	197.5	0.75	0.64	0.950	21.4	790.0	0.38	0.32	3.800	42.7
CTX300-2A-R	300.0	303.7	0.60	0.58	1.174	26.5	1215	0.30	0.29	4.697	53.0
CTX0.33-3A-R	0.33	0.368	15.0	11.4	0.0032	0.97	1.47	7.50	5.72	0.0128	1.93
CTX0.68-3A-R	0.68	0.688	11.3	9.3	0.0048	1.29	2.75	5.63	4.64	0.0194	2.58
CTX1-3A-R	1.0	1.08	9.0	8.38	0.0059	1.61	4.20	4.50	4.19	0.0238	3.22
CTX2-3A-R	2.0	2.11	6.43	7.26	0.0079	2.26	8.43	3.21	3.63	0.0317	4.51
CTX5-3A-R	5.0	5.20	4.09	5.24	0.015	3.54	20.81	2.05	2.62	0.061	7.09
CTX8-3A-R	8.0	8.43	3.21	4.23	0.023	4.51	33.77	1.61	2.12	0.093	9.02
CTX10-3A-R	10.0	9.68	3.00	3.64	0.032	4.83	38.70	1.50	1.82	0.126	9.67
CTX15-3A-R	15.0	15.52	2.37	3.25	0.039	6.12	62.09	1.18	1.63	0.158	12.2
CTX20-3A-R	20.0	20.81	2.05	2.43	0.071	7.09	83.25	1.02	1.22	0.282	14.2
CTX25-3A-R	25.0	24.77	1.88	2.34	0.076	7.73	99.07	0.94	1.17	0.306	15.5
CTX33-3A-R	33.0	33.71	1.61	1.93	0.112	9.02	134.8	0.80	0.96	0.449	18.0
CTX50-3A-R	50.0	49.71	1.32	1.56	0.171	11.0	198.8	0.66	0.78	0.686	21.9

1) Open Circuit Inductance Test Parameters: 100kHz, 0.250 Vrms, 0.0 Adc  
Parallel: (1,4 - 3,2) Series: (1 - 3) tie (2 - 4)  
2) Peak current for approximately 30% roll-off  
3) RMS current, delta temp. of 40° C ambient temperature of 85° C  
4) DCR @ 20°C

5) Hipot rating: winding to winding: 300Vdc min.  
6) Turns Ratio: (1-2):(4-3) 1:1  
7) Applied volt-time product (v-us) across the inductor. This value represents the applied V-us at 300KHz necessary to generate a core loss equal to 10% of the total losses for a 40°C temperature rise.

Part Number	Rated Inductance (μH)	Parallel Ratings					Series Ratings				
		OCL (1) nominal +/-25% (μH)	I sat. (2) Amperes Peak	I rms. (3) Amperes	DCR Ω (4) max. @ 20°C.	Volt (7) μ-Sec	OCL (1) nominal +/-25% (μH)	I sat. (2) Amperes Peak	I rms. (3) Amperes	DCR Ω (4) max. @ 20°C.	Volt (7) μ-Sec
CTX68-3A-R	68.0	68.80	1.13	1.28	0.253	12.9	275.2	0.56	0.64	1.013	25.8
CTX100-3A-R	100.0	99.07	0.94	1.05	0.379	15.5	396.3	0.47	0.53	1.514	30.9
CTX150-3A-R	150.0	149.7	0.76	0.86	0.571	19.0	598.7	0.38	0.43	2.283	38.0
CTX200-3A-R	200.0	198.8	0.66	0.71	0.829	21.9	795.3	0.33	0.35	3.315	43.8
CTX300-3A-R	300.0	296.2	0.54	0.56	1.309	26.7	1185	0.27	0.28	5.236	53.5
CTX0.33-4A-R	0.33	0.313	22.5	12.2	0.0030	0.98	1.25	11.25	6.09	0.0119	1.96
CTX0.68-4A-R	0.68	0.744	15.0	10.6	0.0040	1.47	2.98	7.50	5.28	0.0158	2.94
CTX1-4A-R	1.0	1.39	11.25	9.23	0.0052	1.96	5.57	5.63	4.62	0.0207	3.93
CTX2-4A-R	2.0	2.18	9.00	8.38	0.0063	2.45	8.70	4.50	4.19	0.0251	4.91
CTX5-4A-R	5.0	4.26	6.43	7.21	0.0085	3.44	17.05	3.21	3.61	0.0339	6.87
CTX8-4A-R	8.0	8.70	4.50	5.49	0.015	4.91	34.80	2.25	2.74	0.059	9.81
CTX10-4A-R	10.0	10.53	4.09	4.67	0.020	5.40	42.11	2.05	2.33	0.081	10.8
CTX15-4A-R	15.0	14.70	3.46	3.87	0.029	6.38	58.81	1.73	1.94	0.117	12.8
CTX20-4A-R	20.0	19.58	3.00	3.62	0.034	7.36	78.30	1.50	1.81	0.135	14.7
CTX25-4A-R	25.0	25.14	2.65	3.02	0.048	8.34	100.51	1.32	1.51	0.193	16.7
CTX33-4A-R	33.0	34.80	2.25	2.49	0.071	9.81	139.2	1.13	1.25	0.283	19.6
CTX50-4A-R	50.0	50.11	1.88	2.05	0.104	11.8	200.4	0.94	1.03	0.418	23.6
CTX68-4A-R	68.0	68.21	1.61	1.70	0.153	13.7	272.8	0.80	0.85	0.612	27.5
CTX100-4A-R	100.0	100.57	1.32	1.37	0.235	16.7	402.3	0.66	0.69	0.939	33.4
CTX150-4A-R	150.0	153.5	1.07	1.10	0.365	20.6	613.9	0.54	0.55	1.462	41.2
CTX200-4A-R	200.0	200.4	0.94	0.92	0.521	23.6	801.8	0.47	0.46	2.085	47.1
CTX300-4A-R	300.0	302.8	0.76	0.75	0.787	29.0	1211	0.38	0.37	3.148	57.9

- 1) Open Circuit Inductance Test Parameters: 100kHz, 0.250 Vrms, 0.0 Adc  
Parallel: (1,4 - 3,2) Series: (1 - 3) tie (2 - 4)
- 2) Peak current for approximately 30% roll-off
- 3) RMS current, delta temp. of 40° C ambient temperature of 85° C
- 4) DCR @ 20°C

- 5) Hipot rating: winding to winding: 300Vdc min.
- 6) Turns Ratio: (1-2):(4-3) 1:1
- 7) Applied volt-time product (v-us) across the inductor. This value represents the applied V-us at 300KHz necessary to generate a core loss equal to 10% of the total losses for a 40°C temperature rise.

Octa-Pac Plus  
(-1A, -2A-3A) discontinued  
October 31, 2017 or until  
inventory is depleted.

**Mechanical Diagrams**

**CTX 1, 1P, 1A Series**



**CTX 2, 2P, 2A Series**



**CTX 3, 3P, 3A Series**



**CTX 4, 4P, 4A Series**



Dimensions in Millimeters.

wwllyy = (date code) R = revision level

**Packaging Information**

**CTX 1, 1P, 1A Series**



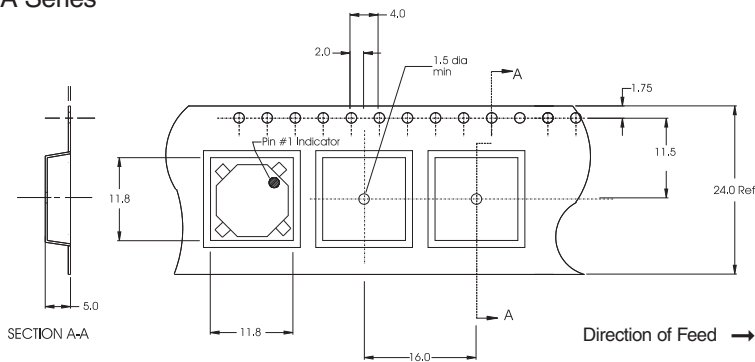
Parts packaged on 13" Diameter reel,  
 1,100 parts per reel.

**CTX 2, 2P, 2A Series**



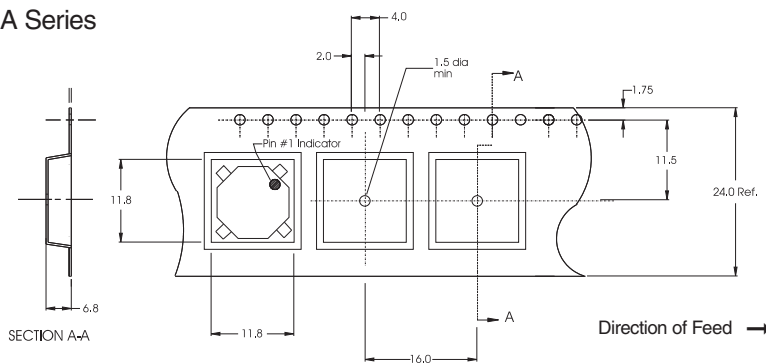
Parts packaged on 13" Diameter reel,  
 800 parts per reel.

**CTX 3, 3P, 3A Series**



Parts packaged on 13" Diameter reel,  
 800 parts per reel.

**CTX 4, 4P, 4A Series**



Parts packaged on 13" Diameter reel,  
 600 parts per reel.

Dimensions are in millimeters.

Performance Characteristics



- **INDUCTANCE VS. CURRENT:**  
Inductance will fall off as DC Current is increased. (See Inductance vs. Current graph).
- **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.

OCTA-PAC® PLUS Typical Inductance vs. DC Current



OCTA-PAC® PLUS Winding Loss Derating with Core Loss



### Solder Reflow Profile



Table 1 - Standard SnPb Solder ( $T_c$ )

Package Thickness	Volume $\leq 350$ mm <sup>3</sup>	Volume $\geq 350$ mm <sup>3</sup>
<2.5mm	235°C	220°C
$\geq 2.5$ mm	220°C	220°C

Table 2 - Lead (Pb) Free Solder ( $T_c$ )

Package Thickness	Volume $\leq 350$ mm <sup>3</sup>	Volume 350 - 2000 mm <sup>3</sup>	Volume $> 2000$ mm <sup>3</sup>
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

### Reference JDEC J-STD-020

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak		
• Temperature min. ( $T_{smin}$ )	100°C	150°C
• Temperature max. ( $T_{smax}$ )	150°C	200°C
• Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60-120 Seconds	60-120 Seconds
Average ramp up rate $T_{smax}$ to $T_p$	3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature ( $T_L$ )	183°C	217°C
Time at liquidous ( $t_L$ )	60-150 Seconds	60-150 Seconds
Peak package body temperature ( $T_p$ )*	Table 1	Table 2
Time ( $t_p$ )** within 5 °C of the specified classification temperature ( $T_c$ )	20 Seconds**	30 Seconds**
Average ramp-down rate ( $T_p$ to $T_{smax}$ )	6°C/ Second Max.	6°C/ Second Max.
Time 25°C to Peak Temperature	6 Minutes Max.	8 Minutes Max.

\* Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.

\*\* Tolerance for time at peak profile temperature ( $t_p$ ) is defined as a supplier minimum and a user maximum.

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