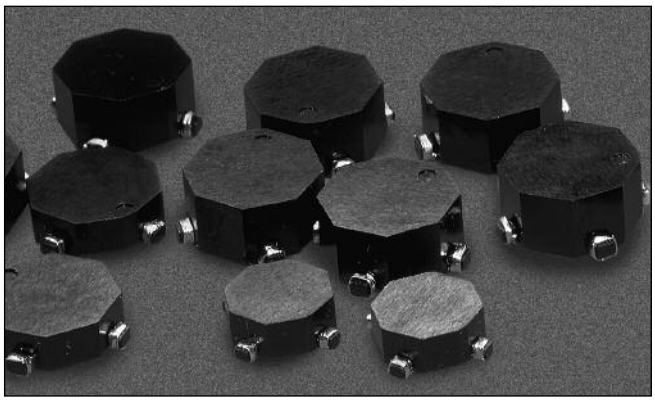
COOPER COILTRONICS®

COOPER Bussmann

# ECONO-PAC™/OCTA-PAC®
# OCTA-PAC® PLUS
# Power Inductors and Transformers

RoHS 2002/95/EC



## Description

- 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, Powder Iron 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 300Vdc isolation, flyback, sepic

## Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating ambient temperature range: -40°C to +85°C (range is application specific).
- Solder reflow temperature: +260°C max. for 10 seconds max.

## Packaging

- Supplied in tape and reel packaging, 1100 (EP01, OPA1, and OP01), 800 (EP02, OP02, OPA2, EP03, OPA3, and OP03), and 600 (EP04, OPA4, and OP04) per reel

## Legend

Marking
- CTX___-__ (First three digits CTX; Second 2-3 digits = Inductance Value; Last 1-2 digits, product size & type)

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)

| | PARALLEL | | | | SERIES | | | |
|---|---|---|---|---|---|---|---|---|
| Part Number | Open Circuit Inductance µH +/-20% | Full Load Inductance µH min. | Full Load Current Adc | DC Resistance ohms max. | Open Circuit Inductance µH +/-20% | Full Load Inductance µH min. | Full Load Current Adc | 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 |

| Part Number | PARALLEL | | | | SERIES | | | |
|---|---|---|---|---|---|---|---|---|
| | Open Circuit Inductance µH +/-20% | Full Load Inductance µH min. | Full Load Current Adc | DC Resistance ohms max. | Open Circuit Inductance µH +/-20% | Full Load Inductance µH min. | Full Load Current Adc | DC Resistance ohms max. |
| 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 |
| 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 |

| Part Number | PARALLEL | | | | SERIES | | | |
|---|---|---|---|---|---|---|---|---|
| | Open Circuit Inductance µH +/-20% | Full Load Inductance µH min. | Full Load Current Adc | DC Resistance ohms max. | Open Circuit Inductance µH +/-20% | Full Load Inductance µH min. | Full Load Current Adc | DC Resistance ohms max. |
| **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 |

| | | Parallel Ratings | | | | | Series Ratings | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Part Number** | **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 | 0.69 | 0.61 | 0.995 | 16.8 |
| **CTX50-1A-R** | 50.0 | 51.18 | 1.14 | 0.99 | 0.381 | 10.3 | 204.7 | 0.57 | 0.49 | 1.524 | 20.5 |
| **CTX68-1A-R** | 68.0 | 67.87 | 0.99 | 0.92 | 0.437 | 11.8 | 271.5 | 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 | 0.963 | 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 | 0.28 | 4.726 | 49.7 |
| **CTX0.33-2A-R** | 0.33 | 0.284 | 18.8 | 10.9 | 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 | 1.28 | 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 | 1.98 | 7.50 | 6.74 | 0.0090 | 2.14 | 7.90 | 3.75 | 3.37 | 0.035 | 4.27 |
| **CTX5-2A-R** | 5.0 | 5.06 | 4.69 | 4.34 | 0.021 | 3.42 | 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 | 20.22 | 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 | 66.44 | 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 |

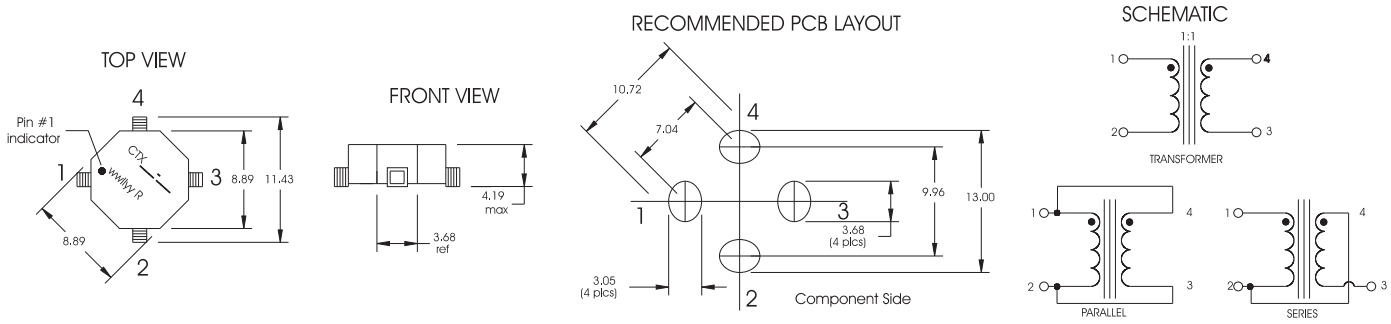
1) Open Circuit Inductance Test Parameters: 100kHz, 0.250 Vrms, 0.0 Adc
Parallel: (1,4 - 3,2) Series: (1 - 3) tie (2 - 4)
2) Peak current for approximately 30% roll-off
3) RMS current, delta temp. of 40° C ambient temperature of 85° C
4) DCR @ 20°C
5) Hipot rating: winding to winding: 300Vdc min.
6) 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.

| | | Parallel Ratings | | | | | Series Ratings | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Part Number** | **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** |
| **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 |

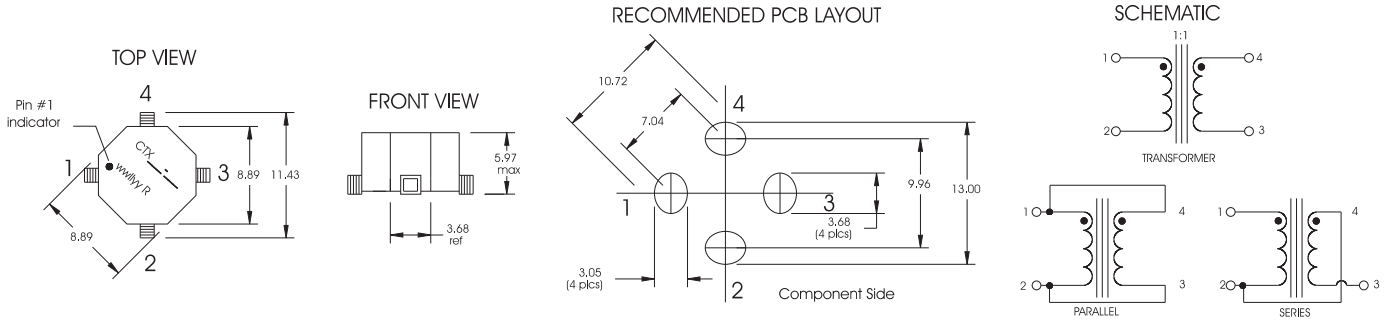
1) Open Circuit Inductance Test Parameters: 100kHz, 0.250 Vrms, 0.0 Adc
   Parallel: (1,4 - 3,2) Series: (1 - 3) tie (2 - 4)
2) Peak current for approximately 30% roll-off
3) RMS current, delta temp. of 40° C ambient temperature of 85° C
4) DCR @ 20°C
5) Hipot rating: winding to winding: 300Vdc min.
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.

## Mechanical Diagrams

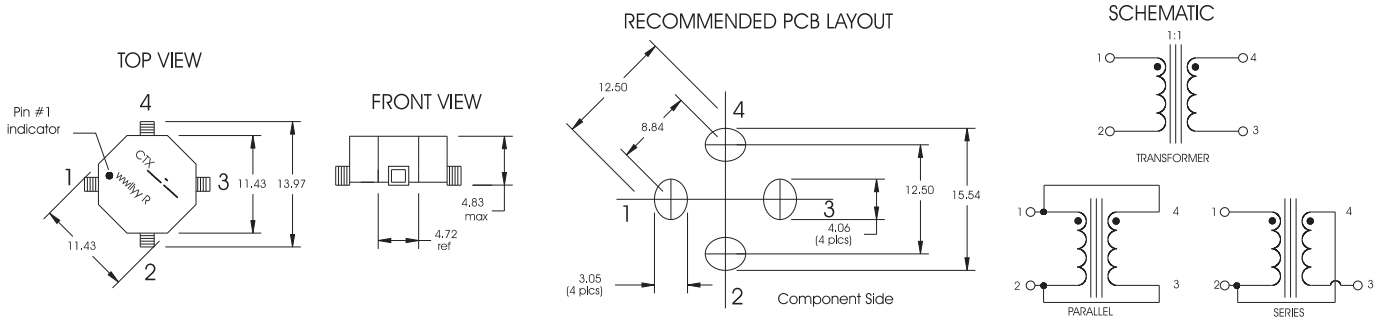
### CTX 1, 1P, 1A Series



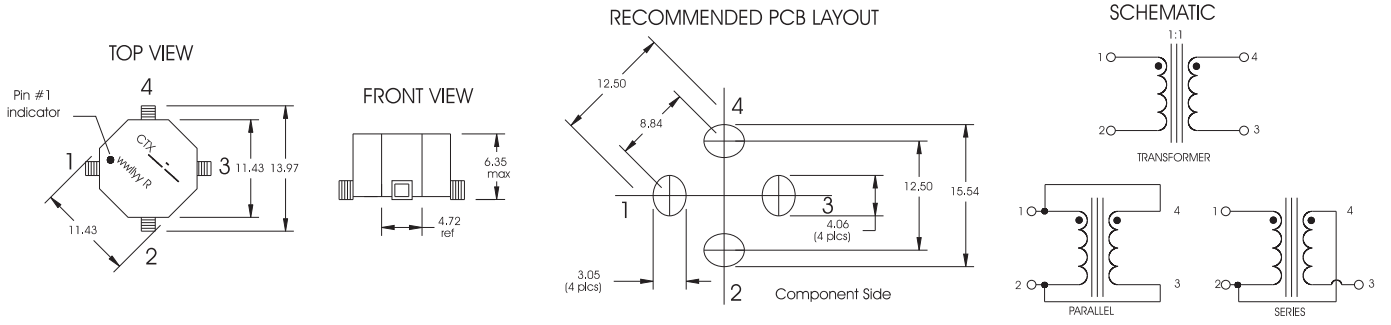

### CTX 2, 2P, 2A Series




### CTX 3, 3P, 3A Series




### CTX 4, 4P, 4A Series

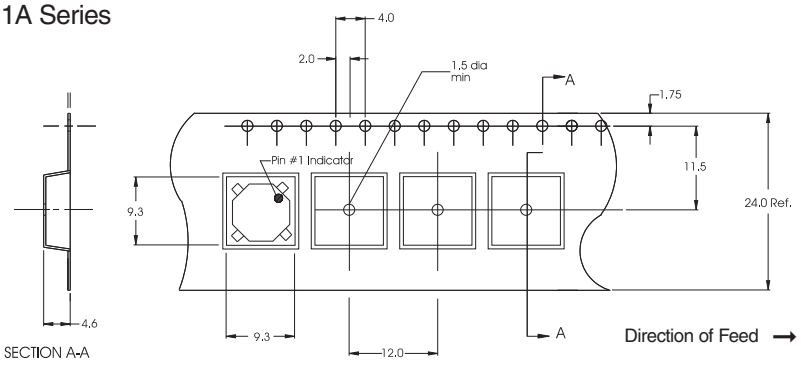



Dimensions in Millimeters.

wwllyy = (date code) R = revision level

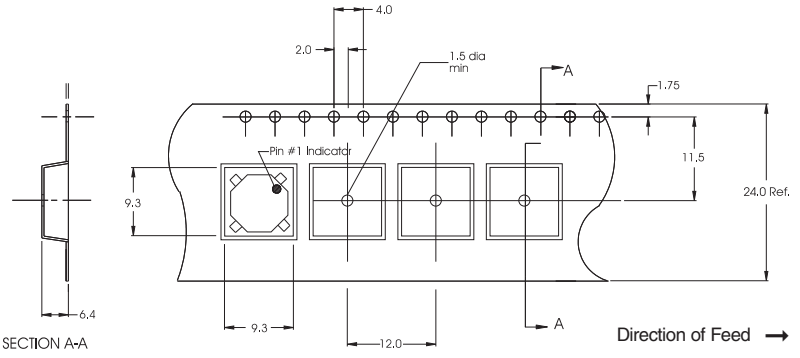
## Packaging Information

### CTX 1, 1P, 1A Series



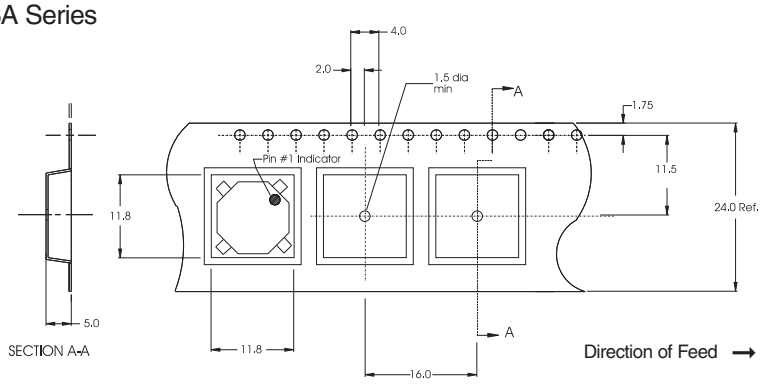

Parts packaged on 13" Diameter reel, 1,100 parts per reel.

### CTX 2, 2P, 2A Series



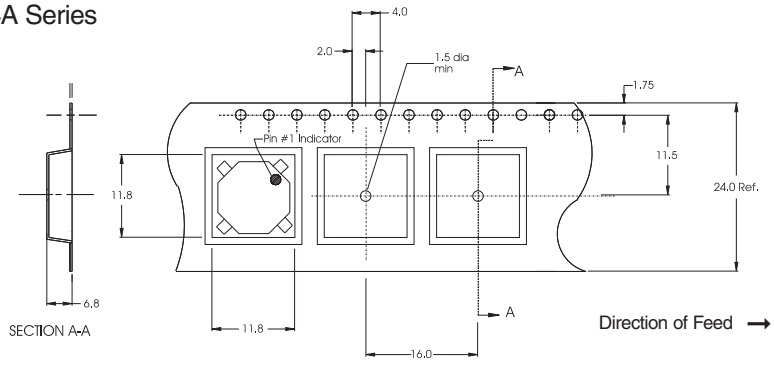

Parts packaged on 13" Diameter reel, 800 parts per reel.

### CTX 3, 3P, 3A Series




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

### CTX 4, 4P, 4A Series

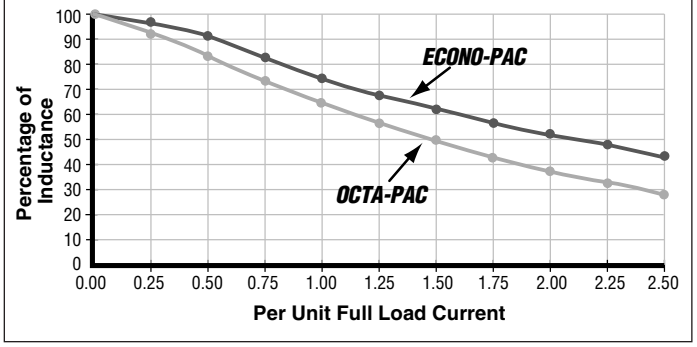



Parts packaged on 13" Diameter reel, 600 parts per reel.

Dimensions are in millimeters.

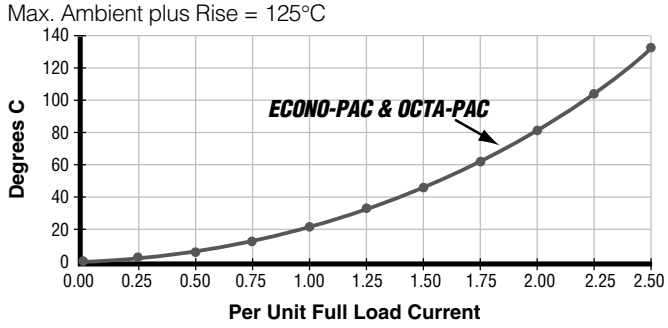
## Performance Characteristics

### INDUCTANCE VS. CURRENT

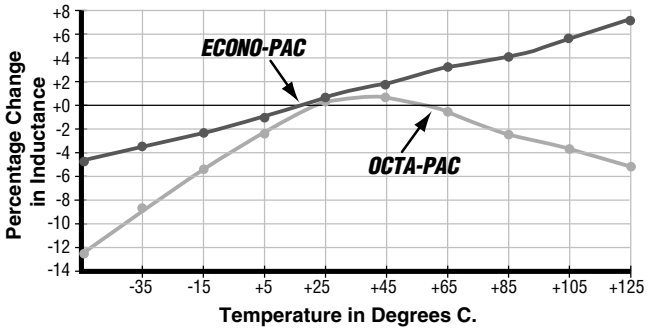



### TEMPERATURE RISE VS. RATED CURRENT

Max. Ambient plus Rise = 125°C

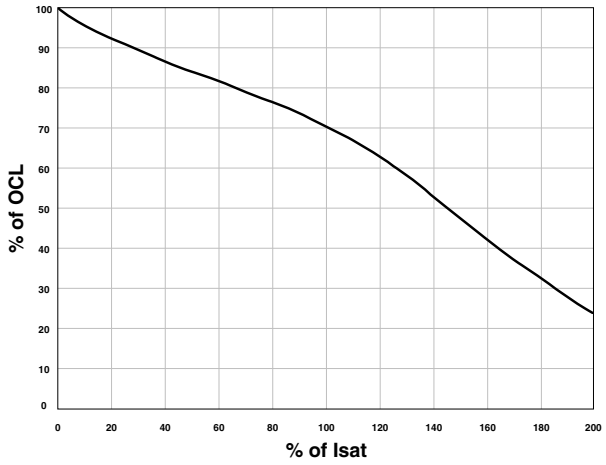



### INDUCTANCE VS. TEMPERATURE

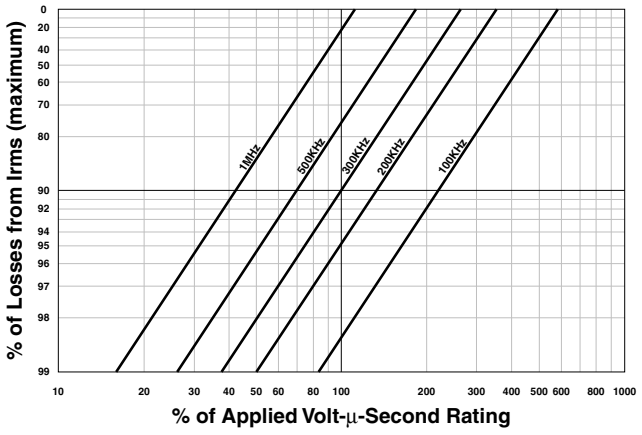



- **INDUCTANCE VS. CURRENT:**
  Inductance will fall off as DC Current is increased.
  *(See Inductance vs. Current graph).*
- **FREQUENCY RESPONSE:**
  Wide-band frequency response to 1 megaHertz.
- **CURRENT LIMITATION:**
  The maximum allowable currents are defined by the internal "hot-spot" temperatures 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



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**Visit us on the Web at www.cooperbussmann.com**
1225 Broken Sound Pkwy. Suite F Boca Raton, FL 33487
Tel: +1-561-998-4100 Toll Free: +1-888-414-2645 Fax: +1-561-241-6640

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