

### Description

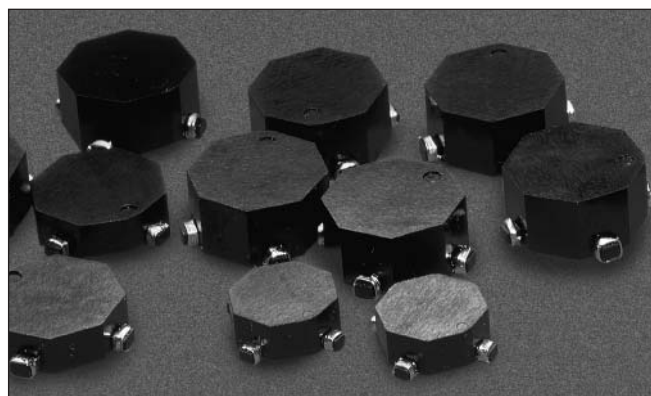
- Surface mount magnetics that can be used as single or coupled inductors or 1:1 transformers that provide isolation between two windings
- OCTA-PAC's are designed around high frequency, low loss material
- ECONO-PAC's are a lower cost version of OCTA-PAC's offering high saturation flux density
- OCTA-PAC PLUS's offer higher current ratings and higher saturation flux densities than OCTA-PAC and ECONO-PAC
- 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).
- Infrared reflow temperature: +240°C for 30 seconds maximum



### 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

- No suffix is OCTA-PAC®
- P suffix is ECONO-PAC™
- A suffix is OCTA-PAC® PLUS

| Part Number | PARALLEL                             |                                 |                          |                            | SERIES                               |                                 |                          |                            |
|-------------|--------------------------------------|---------------------------------|--------------------------|----------------------------|--------------------------------------|---------------------------------|--------------------------|----------------------------|
|             | Open Circuit Inductance<br>μH +/-20% | Full Load Inductance<br>μH min. | Full Load Current<br>Adc | DC Resistance<br>ohms max. | Open Circuit Inductance<br>μH +/-20% | Full Load Inductance<br>μH min. | Full Load Current<br>Adc | DC Resistance<br>ohms max. |
| CTX0.47-1P  | .42                                  | .31                             | 5.50                     | .005                       | 1.67                                 | 1.25                            | 2.75                     | .021                       |
| CTX0.68-1P  | .60                                  | .43                             | 5.10                     | .006                       | 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                     | .013                       | 8.08                                 | 5.44                            | 1.70                     | .054                       |
| CTX5-1P     | 4.83                                 | 3.37                            | 2.00                     | .040                       | 19.31                                | 13.47                           | 1.00                     | .161                       |
| CTX8-1P     | 8.08                                 | 5.31                            | 1.80                     | .052                       | 32.33                                | 21.23                           | .90                      | .207                       |
| 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                     | .158                       | 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                      | .250                       | 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                       |
| CTX0.68-2P  | .85                                  | .64                             | 5.40                     | .007                       | 3.40                                 | 2.55                            | 2.70                     | .029                       |
| CTX1-2P     | 1.22                                 | .89                             | 5.00                     | .008                       | 4.90                                 | 3.57                            | 2.50                     | .033                       |
| CTX2-2P     | 2.18                                 | 1.56                            | 3.90                     | .014                       | 8.70                                 | 6.26                            | 1.95                     | .055                       |
| 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                     | .158                       |
| 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                      | .305                       | 196.38                               | 141.24                          | .41                      | 1.221                      |
| CTX68-2P    | 68.85                                | 47.93                           | .76                      | .362                       | 275.40                               | 191.71                          | .38                      | 1.445                      |
| CTX100-2P   | 99.14                                | 69.56                           | .62                      | .541                       | 396.58                               | 278.22                          | .31                      | 2.162                      |
| CTX150-2P   | 148.10                               | 100.07                          | .56                      | .665                       | 592.42                               | 400.27                          | .28                      | 2.660                      |
| 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                      |

| Part Number | PARALLEL                                         |                                         |                        |                         | SERIES                                           |                                         |                        |                         |
|-------------|--------------------------------------------------|-----------------------------------------|------------------------|-------------------------|--------------------------------------------------|-----------------------------------------|------------------------|-------------------------|
|             | Open Circuit Inductance $\mu\text{H}$ $\pm 20\%$ | Full Load Inductance $\mu\text{H}$ min. | Full Load Current A dc | DC Resistance ohms max. | Open Circuit Inductance $\mu\text{H}$ $\pm 20\%$ | Full Load Inductance $\mu\text{H}$ min. | Full Load Current A dc | DC Resistance ohms max. |
| CTX0.47-3P  | .46                                              | .35                                     | 6.20                   | .006                    | 1.85                                             | 1.42                                    | 3.10                   | .025                    |
| CTX0.68-3P  | .67                                              | .50                                     | 5.70                   | .007                    | 2.66                                             | 1.98                                    | 2.85                   | .028                    |
| CTX1-3P     | .91                                              | .65                                     | 5.40                   | .008                    | 3.63                                             | 2.62                                    | 2.70                   | .032                    |
| CTX2-3P     | 1.85                                             | 1.24                                    | 4.60                   | .011                    | 7.40                                             | 4.97                                    | 2.30                   | .045                    |
| CTX5-3P     | 4.74                                             | 3.04                                    | 3.20                   | .022                    | 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                   | .131                    |
| 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                   | .146                    | 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                    | .501                    | 405.22                                           | 262.02                                  | .34                    | 2.005                   |
| CTX150-3P   | 149.85                                           | 90.92                                   | .64                    | .621                    | 599.40                                           | 363.68                                  | .32                    | 2.483                   |
| CTX200-3P   | 200.10                                           | 116.51                                  | .60                    | .731                    | 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                    |
| CTX0.68-4P  | .76                                              | .56                                     | 7.20                   | .006                    | 3.05                                             | 2.24                                    | 3.60                   | .023                    |
| CTX1-4P     | 1.10                                             | .81                                     | 5.90                   | .008                    | 4.39                                             | 3.24                                    | 2.95                   | .033                    |
| 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                   | .084                    | 82.47                                            | 53.76                                   | .95                    | .337                    |
| CTX25-4P    | 25.65                                            | 17.17                                   | 1.60                   | .115                    | 102.60                                           | 68.68                                   | .80                    | .461                    |
| CTX33-4P    | 33.21                                            | 22.93                                   | 1.30                   | .166                    | 132.86                                           | 91.72                                   | .65                    | .662                    |
| CTX50-4P    | 48.80                                            | 32.21                                   | 1.20                   | .201                    | 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                   |
| CTX0.47-1   | .40                                              | .26                                     | 5.50                   | .005                    | 1.60                                             | 1.05                                    | 2.75                   | .020                    |
| 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                   | .010                    | 8.10                                             | 4.01                                    | 2.05                   | .040                    |
| CTX5-1      | 4.90                                             | 2.66                                    | 2.30                   | .030                    | 19.60                                            | 10.64                                   | 1.15                   | .122                    |
| CTX8-1      | 8.10                                             | 4.08                                    | 2.00                   | .039                    | 32.40                                            | 16.34                                   | 1.00                   | .157                    |
| 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                    | .583                    |
| CTX25-1     | 25.60                                            | 16.35                                   | .74                    | .167                    | 102.40                                           | 65.42                                   | .37                    | .668                    |
| CTX33-1     | 32.40                                            | 19.84                                   | .72                    | .293                    | 129.60                                           | 79.37                                   | .36                    | 1.171                   |
| CTX50-1     | 50.63                                            | 29.34                                   | .64                    | .365                    | 202.50                                           | 117.38                                  | .32                    | 1.461                   |
| CTX68-1     | 67.60                                            | 39.73                                   | .54                    | .516                    | 270.40                                           | 158.92                                  | .27                    | 2.064                   |
| CTX100-1    | 99.23                                            | 58.72                                   | .44                    | .784                    | 396.90                                           | 234.88                                  | .22                    | 3.137                   |
| CTX150-1    | 148.23                                           | 85.16                                   | .38                    | .965                    | 592.90                                           | 340.64                                  | .19                    | 3.861                   |
| CTX200-1    | 202.50                                           | 107.60                                  | .37                    | 1.142                   | 810.00                                           | 430.39                                  | .19                    | 4.567                   |
| CTX300-1    | 302.50                                           | 191.38                                  | .22                    | 1.431                   | 1210.00                                          | 765.54                                  | .11                    | 5.724                   |
| CTX0.47-2   | .42                                              | .29                                     | 6.50                   | .005                    | 1.69                                             | 1.17                                    | 3.25                   | .019                    |
| CTX0.68-2   | .75                                              | .50                                     | 5.50                   | .006                    | 3.01                                             | 1.98                                    | 2.75                   | .024                    |
| CTX1-2      | 1.18                                             | .76                                     | 4.60                   | .007                    | 4.70                                             | 3.04                                    | 2.30                   | .028                    |
| 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                   | .031                    | 42.30                                            | 20.72                                   | 1.25                   | .125                    |
| CTX15-2     | 15.23                                            | 8.53                                    | 1.70                   | .059                    | 60.91                                            | 34.10                                   | .85                    | .236                    |
| CTX20-2     | 20.73                                            | 12.36                                   | 1.30                   | .107                    | 82.91                                            | 49.46                                   | .65                    | .426                    |
| CTX25-2     | 24.86                                            | 16.09                                   | 1.00                   | .117                    | 99.45                                            | 64.35                                   | .50                    | .466                    |
| CTX33-2     | 31.77                                            | 15.90                                   | 1.40                   | .105                    | 127.09                                           | 63.59                                   | .70                    | .420                    |
| CTX50-2     | 51.18                                            | 28.79                                   | .92                    | .210                    | 204.73                                           | 115.16                                  | .46                    | .839                    |
| CTX68-2     | 67.87                                            | 38.71                                   | .78                    | .303                    | 271.47                                           | 154.83                                  | .39                    | 1.214                   |
| CTX100-2    | 99.45                                            | 57.45                                   | .63                    | .457                    | 397.81                                           | 229.79                                  | .32                    | 1.828                   |

| Part Number | PARALLEL                             |                                 |                          |                            | SERIES                               |                                 |                          |                            |
|-------------|--------------------------------------|---------------------------------|--------------------------|----------------------------|--------------------------------------|---------------------------------|--------------------------|----------------------------|
|             | Open Circuit Inductance<br>μH +/-20% | Full Load Inductance<br>μH min. | Full Load Current<br>Adc | DC Resistance<br>ohms max. | Open Circuit Inductance<br>μH +/-20% | Full Load Inductance<br>μH min. | Full Load Current<br>Adc | DC Resistance<br>ohms max. |
| CTX150-2    | 147.39                               | 93.46                           | .43                      | .560                       | 589.57                               | 373.84                          | .22                      | 2.241                      |
| CTX200-2    | 198.58                               | 122.94                          | .39                      | .796                       | 794.30                               | 491.76                          | .20                      | 3.184                      |
| CTX300-2    | 300.80                               | 169.06                          | .38                      | 1.231                      | 1203.20                              | 676.24                          | .19                      | 4.929                      |
| CTX0.47-3   | .38                                  | .27                             | 6.00                     | .005                       | 1.54                                 | 1.08                            | 3.00                     | .020                       |
| 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                     | .019                       | 18.82                                | 10.26                           | 1.50                     | .077                       |
| CTX8-3      | 7.78                                 | 3.74                            | 2.80                     | .025                       | 31.10                                | 14.98                           | 1.40                     | .099                       |
| CTX10-3     | 9.60                                 | 4.38                            | 2.70                     | .028                       | 38.40                                | 17.54                           | 1.35                     | .111                       |
| 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                      | .086                       | 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                      | .239                       | 203.14                               | 108.71                          | .47                      | .956                       |
| CTX68-3     | 67.42                                | 36.53                           | .80                      | .277                       | 269.66                               | 146.11                          | .40                      | 1.109                      |
| CTX100-3    | 101.40                               | 52.48                           | .70                      | .345                       | 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                      | 3.083                      |
| CTX0.47-4   | .44                                  | .32                             | 7.00                     | .004                       | 1.76                                 | 1.29                            | 3.50                     | .016                       |
| 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                            | 4.90                     | .007                       | 7.06                                 | 4.24                            | 2.45                     | .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                     | .018                       | 33.12                                | 17.14                           | 1.75                     | .072                       |
| CTX10-4     | 9.60                                 | 4.82                            | 3.40                     | .019                       | 38.42                                | 19.28                           | 1.70                     | .078                       |
| 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                     | .063                       | 103.68                               | 53.27                           | 1.00                     | .253                       |
| CTX33-4     | 33.12                                | 16.82                           | 1.80                     | .072                       | 132.50                               | 67.27                           | .90                      | .287                       |
| CTX50-4     | 50.18                                | 25.03                           | 1.50                     | .111                       | 200.70                               | 100.11                          | .75                      | .443                       |
| CTX68-4     | 67.08                                | 35.29                           | 1.20                     | .157                       | 268.32                               | 141.15                          | .60                      | .630                       |
| CTX100-4    | 99.23                                | 54.56                           | .92                      | .302                       | 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                      |

| 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 |
| CTX0.33-1A  | 0.33                  | 0.402                       | 12.5                    | 10.0               | 0.0037                 | .93            | 1.61                        | 6.25                    | 4.98               | 0.015                  | 1.86           |
| CTX0.68-1A  | 0.68                  | 0.752                       | 9.4                     | 9.0                | 0.0046                 | 1.24           | 3.01                        | 4.69                    | 4.48               | 0.0185                 | 2.49           |
| CTX1-1A     | 1.0                   | 1.18                        | 7.5                     | 7.26               | 0.0070                 | 1.55           | 4.70                        | 3.75                    | 3.63               | 0.0282                 | 3.11           |
| CTX2-1A     | 2.0                   | 2.30                        | 5.36                    | 5.64               | 0.012                  | 2.17           | 9.21                        | 2.68                    | 2.82               | 0.0470                 | 4.35           |
| CTX5-1A     | 5.0                   | 4.70                        | 3.75                    | 4.27               | 0.020                  | 3.11           | 18.8                        | 1.88                    | 2.13               | 0.082                  | 6.21           |
| CTX8-1A     | 8.0                   | 7.94                        | 2.88                    | 3.37               | 0.033                  | 4.04           | 31.77                       | 1.44                    | 1.69               | 0.130                  | 8.08           |
| CTX10-1A    | 10.0                  | 10.58                       | 2.5                     | 2.84               | 0.046                  | 4.66           | 42.30                       | 1.25                    | 1.42               | 0.183                  | 9.32           |
| CTX15-1A    | 15.0                  | 15.23                       | 2.08                    | 2.07               | 0.087                  | 5.59           | 60.91                       | 1.04                    | 1.03               | 0.348                  | 11.2           |
| CTX20-1A    | 20.0                  | 20.73                       | 1.79                    | 1.71               | 0.127                  | 6.52           | 82.91                       | 0.89                    | 0.86               | 0.507                  | 13.0           |
| CTX25-1A    | 25.0                  | 24.86                       | 1.63                    | 1.46               | 0.173                  | 7.14           | 99.45                       | 0.82                    | 0.73               | 0.693                  | 14.3           |
| CTX33-1A    | 33.0                  | 34.26                       | 1.39                    | 1.22               | 0.249                  | 8.39           | 137.1                       | 0.69                    | 0.61               | 0.995                  | 16.8           |
| CTX50-1A    | 50.0                  | 51.18                       | 1.14                    | 0.99               | 0.381                  | 10.3           | 204.7                       | 0.57                    | 0.49               | 1.524                  | 20.5           |
| CTX68-1A    | 68.0                  | 67.87                       | 0.99                    | 0.92               | 0.437                  | 11.8           | 271.5                       | 0.49                    | 0.46               | 1.749                  | 23.6           |
| CTX100-1A   | 100.0                 | 99.45                       | 0.82                    | 0.74               | 0.686                  | 14.3           | 397.8                       | 0.41                    | 0.37               | 2.745                  | 28.6           |
| CTX150-1A   | 150.0                 | 147.4                       | 0.67                    | 0.67               | 0.832                  | 17.4           | 589.6                       | 0.33                    | 0.33               | 3.329                  | 34.8           |
| CTX200-1A   | 200.0                 | 198.6                       | 0.58                    | 0.62               | 0.963                  | 20.2           | 794.3                       | 0.29                    | 0.31               | 3.854                  | 40.4           |
| CTX300-1A   | 300.0                 | 300.8                       | 0.47                    | 0.56               | 1.181                  | 24.9           | 1203                        | 0.23                    | 0.28               | 4.726                  | 49.7           |
| CTX0.33-2A  | 0.33                  | 0.284                       | 18.8                    | 10.9               | 0.0033                 | .85            | 1.14                        | 9.38                    | 5.47               | 0.0132                 | 1.71           |
| CTX0.68-2A  | 0.68                  | 0.675                       | 12.5                    | 9.4                | 0.0045                 | 1.28           | 2.70                        | 6.25                    | 4.68               | 0.0180                 | 2.56           |
| CTX1-2A     | 1.0                   | 1.26                        | 9.38                    | 8.22               | 0.0058                 | 1.71           | 5.06                        | 4.69                    | 4.11               | 0.0233                 | 3.42           |
| CTX2-2A     | 2.0                   | 1.98                        | 7.50                    | 6.74               | 0.0090                 | 2.14           | 7.90                        | 3.75                    | 3.37               | 0.035                  | 4.27           |
| CTX5-2A     | 5.0                   | 5.06                        | 4.69                    | 4.34               | 0.021                  | 3.42           | 20.22                       | 2.34                    | 2.17               | 0.084                  | 6.84           |
| CTX8-2A     | 8.0                   | 7.90                        | 3.75                    | 3.50               | 0.032                  | 4.27           | 31.60                       | 1.88                    | 1.75               | 0.129                  | 8.55           |
| CTX10-2A    | 10.0                  | 11.38                       | 3.13                    | 2.89               | 0.047                  | 5.13           | 45.50                       | 1.56                    | 1.45               | 0.188                  | 10.3           |
| CTX15-2A    | 15.0                  | 15.48                       | 2.68                    | 2.69               | 0.054                  | 5.98           | 61.94                       | 1.34                    | 1.35               | 0.218                  | 12.0           |
| CTX20-2A    | 20.0                  | 20.22                       | 2.34                    | 2.24               | 0.078                  | 6.84           | 80.90                       | 1.17                    | 1.12               | 0.313                  | 13.7           |
| CTX25-2A    | 25.0                  | 25.60                       | 2.08                    | 1.89               | 0.111                  | 7.69           | 102.38                      | 1.04                    | 0.94               | 0.443                  | 15.4           |
| CTX33-2A    | 33.0                  | 34.84                       | 1.79                    | 1.56               | 0.162                  | 8.97           | 139.4                       | 0.89                    | 0.78               | 0.649                  | 17.9           |
| CTX50-2A    | 50.0                  | 49.38                       | 1.50                    | 1.28               | 0.240                  | 10.7           | 197.5                       | 0.75                    | 0.64               | 0.961                  | 21.4           |
| CTX68-2A    | 68.0                  | 66.44                       | 1.29                    | 1.07               | 0.342                  | 12.4           | 265.8                       | 0.65                    | 0.54               | 1.367                  | 24.8           |
| CTX100-2A   | 100.0                 | 102.38                      | 1.04                    | 0.75               | 0.695                  | 15.4           | 409.5                       | 0.52                    | 0.38               | 2.778                  | 30.8           |
| CTX150-2A   | 150.0                 | 152.9                       | 0.85                    | 0.68               | 0.842                  | 18.8           | 611.8                       | 0.43                    | 0.34               | 3.366                  | 37.6           |
| CTX200-2A   | 200.0                 | 197.5                       | 0.75                    | 0.64               | 0.950                  | 21.4           | 790.0                       | 0.38                    | 0.32               | 3.800                  | 42.7           |
| CTX300-2A   | 300.0                 | 303.7                       | 0.60                    | 0.58               | 1.174                  | 26.5           | 1215                        | 0.30                    | 0.29               | 4.697                  | 53.0           |
| CTX0.33-3A  | 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  | 0.68                  | 0.688                       | 11.3                    | 9.3                | 0.0048                 | 1.29           | 2.75                        | 5.63                    | 4.64               | 0.0194                 | 2.58           |
| CTX1-3A     | 1.0                   | 1.08                        | 9.0                     | 8.38               | 0.0059                 | 1.61           | 4.20                        | 4.50                    | 4.19               | 0.0238                 | 3.22           |
| CTX2-3A     | 2.0                   | 2.11                        | 6.43                    | 7.26               | 0.0079                 | 2.26           | 8.43                        | 3.21                    | 3.63               | 0.0317                 | 4.51           |
| CTX5-3A     | 5.0                   | 5.20                        | 4.09                    | 5.24               | 0.015                  | 3.54           | 20.81                       | 2.05                    | 2.62               | 0.061                  | 7.09           |
| CTX8-3A     | 8.0                   | 8.43                        | 3.21                    | 4.23               | 0.023                  | 4.51           | 33.77                       | 1.61                    | 2.12               | 0.093                  | 9.02           |
| CTX10-3A    | 10.0                  | 9.68                        | 3.00                    | 3.64               | 0.032                  | 4.83           | 38.70                       | 1.50                    | 1.82               | 0.126                  | 9.67           |
| CTX15-3A    | 15.0                  | 15.52                       | 2.37                    | 3.25               | 0.039                  | 6.12           | 62.09                       | 1.18                    | 1.63               | 0.158                  | 12.2           |
| CTX20-3A    | 20.0                  | 20.81                       | 2.05                    | 2.43               | 0.071                  | 7.09           | 83.25                       | 1.02                    | 1.22               | 0.282                  | 14.2           |
| CTX25-3A    | 25.0                  | 24.77                       | 1.88                    | 2.34               | 0.076                  | 7.73           | 99.07                       | 0.94                    | 1.17               | 0.306                  | 15.5           |
| CTX33-3A    | 33.0                  | 33.71                       | 1.61                    | 1.93               | 0.112                  | 9.02           | 134.8                       | 0.80                    | 0.96               | 0.449                  | 18.0           |
| CTX50-3A    | 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.

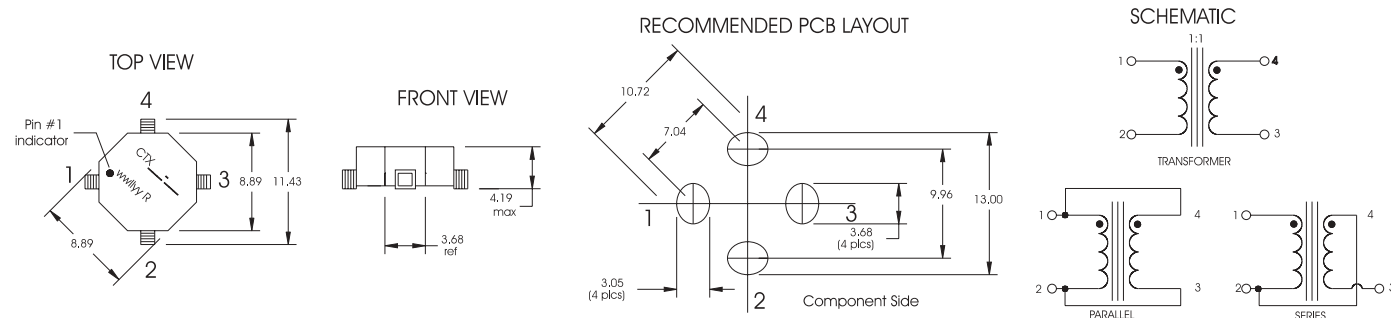
| Part Number | Rated Inductance (μH) | Parallel Ratings            |                         |                    |                        |                | Series Ratings              |                         |                    |                        |                |
|-------------|-----------------------|-----------------------------|-----------------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

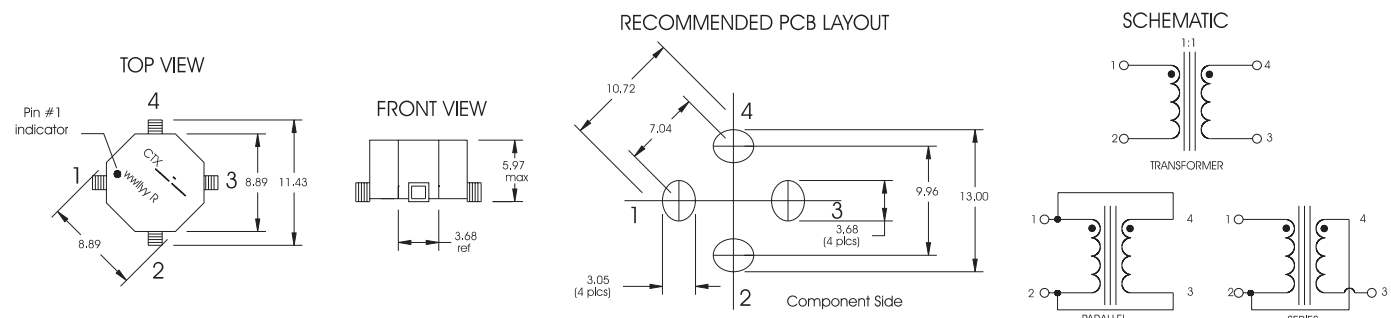
- 5) Hipot rating: winding to winding: 300Vdc min.  
6) Turns Ratio: (1-2):(4-3) 1:1  
7) Applied volt-time product (v-us) across the inductor. This value represents the applied V-us at 300KHz necessary to generate a core loss equal to 10% of the total losses for a 40°C temperature rise.

## Mechanical Diagrams

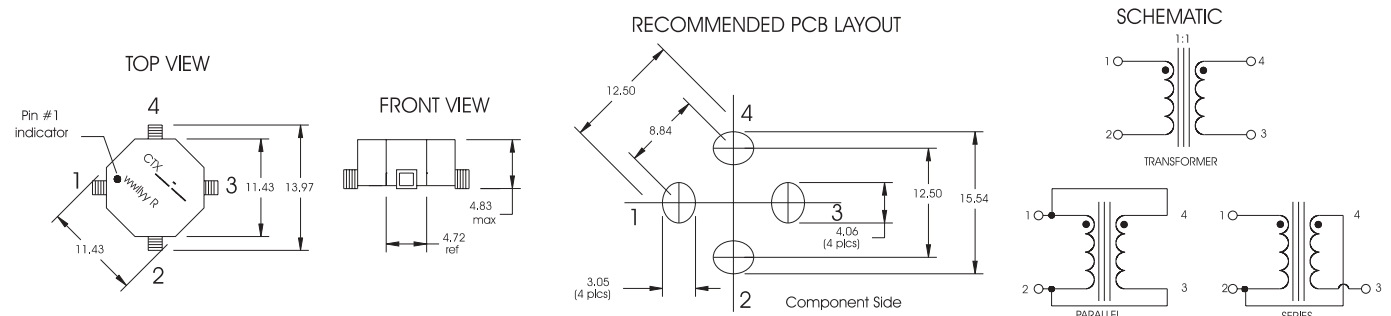
### CTX 1, 1P, 1A Series



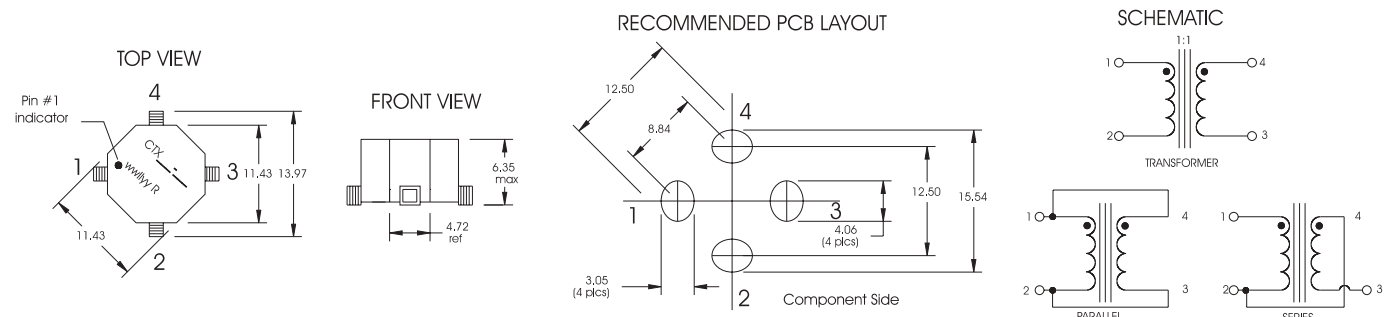
### CTX 2, 2P, 2A Series



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



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

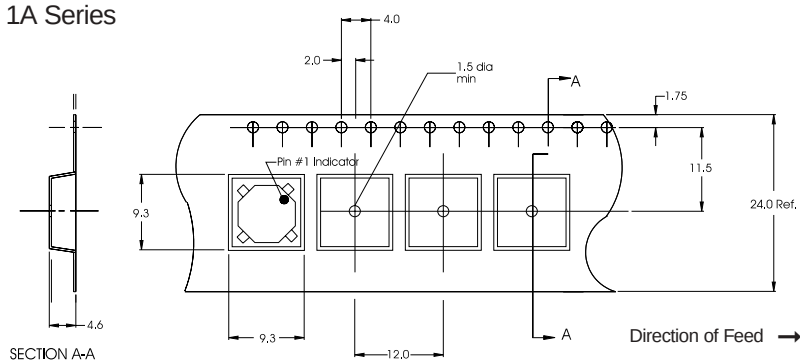


Dimensions in Millimeters.

wwlly = (date code) R = revision level

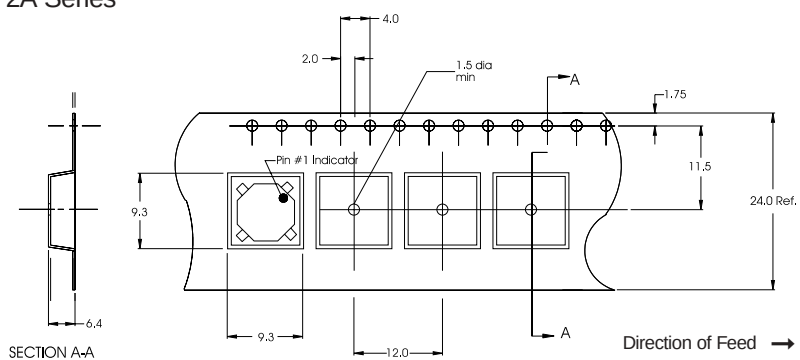
## Packaging Information

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



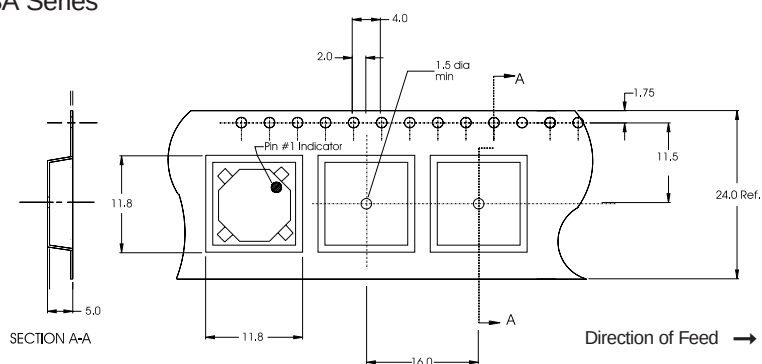
Parts packaged on 13" Diameter reel,  
 1,100 parts per reel.

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



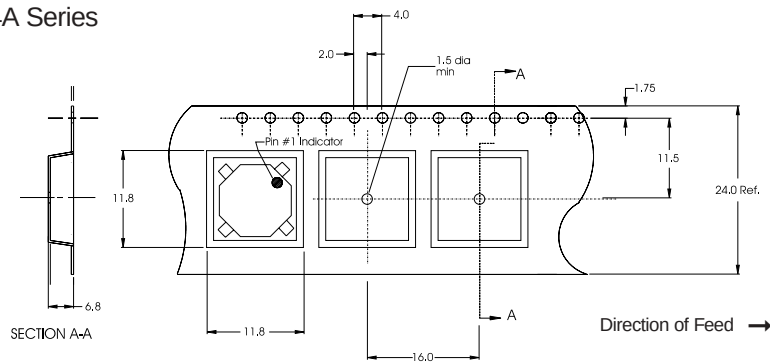
Parts packaged on 13" Diameter reel,  
 800 parts per reel.

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



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

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



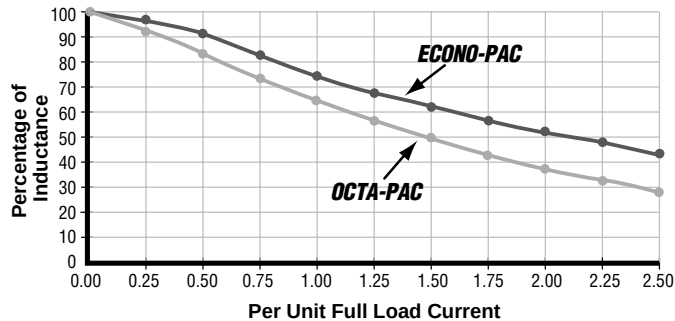
Parts packaged on 13" Diameter reel,  
 600 parts per reel.

Dimensions are in millimeters.



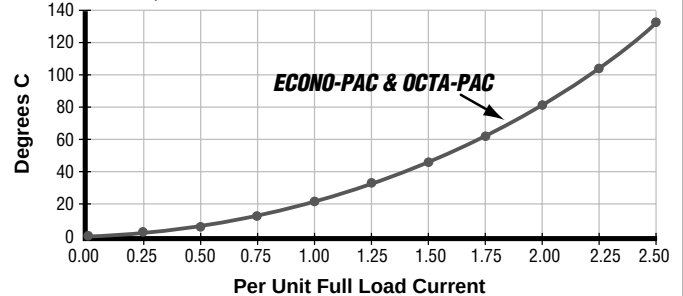
Performance Characteristics

**INDUCTANCE VS. CURRENT**

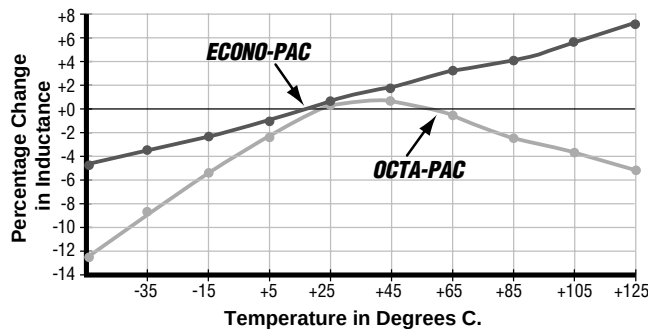


**TEMPERATURE RISE VS. RATED CURRENT**

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).

• **INDUCTANCE VS. FREQUENCY:**

Inductance roll-off versus Frequency approximates 3% at 1 megaHertz.

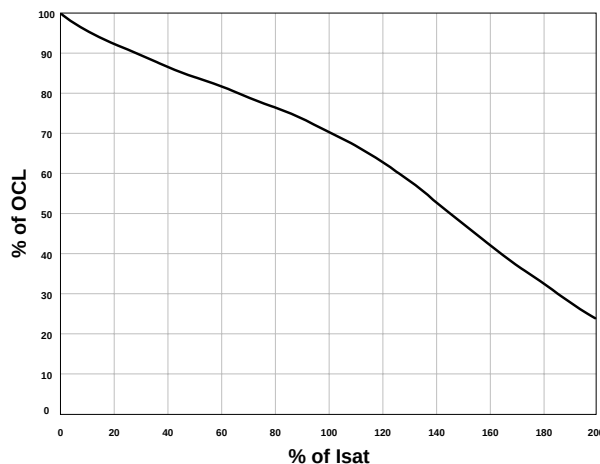
• **FREQUENCY RESPONSE:**

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.

OCTA-PAC® PLUS Typical Inductance vs. DC Current



OCTA-PAC® PLUS Winding Loss Derating with Core Loss

