

INDUCTORS: low inductance with high current when wired in parallel or higher inductance with lower current when wired in series

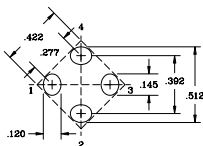
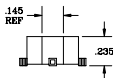
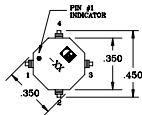
TRANSFORMERS: (1:1) electrical isolation and a wide voltage transformation

- Extended temperature range -40°C to $+85^{\circ}\text{C}$
- Isolation voltage: 300 Vdc



MECHANICAL AND SCHEMATIC (All dimensions in inches)

SUGGESTED PAD LAYOUT



SCHEMATICS



TRANSFORMER



PARALLEL



SERIES

ELECTRICAL SPECIFICATIONS @ 25°C

| Part Number | Rated Inductance (µH) | Parallel Ratings | | | | Series Ratings | | | |
|-------------|-----------------------|------------------------------------|------------------------|------------------------|---------------------------------|------------------------------------|------------------------|------------------------|---------------------------------|
| | | OCL ¹ Nominal ±25% (µH) | Isat. ² (A) | Irms. ³ (A) | DCR ⁴ @20°C (Ω typ.) | OCL ¹ Nominal ±25% (µH) | Isat. ² (A) | Irms. ³ (A) | DCR ⁴ @20°C (Ω typ.) |
| 8409-01 | 0.33 | 0.284 | 18.8 | 10.9 | 0.0033 | 1.14 | 9.38 | 5.47 | 0.0132 |
| 8409-02 | 0.68 | 0.675 | 12.5 | 9.4 | 0.0045 | 2.70 | 6.25 | 4.68 | 0.0180 |
| 8409-03 | 1.0 | 1.26 | 9.38 | 8.22 | 0.0058 | 5.06 | 4.69 | 4.11 | 0.0233 |
| 8409-04 | 2.0 | 1.98 | 7.50 | 6.74 | 0.0090 | 7.90 | 3.75 | 3.37 | 0.035 |
| 8409-05 | 5.0 | 5.06 | 4.69 | 4.34 | 0.021 | 20.22 | 2.34 | 2.17 | 0.084 |
| 8409-06 | 8.0 | 7.90 | 3.75 | 3.50 | 0.032 | 31.60 | 1.88 | 1.75 | 0.129 |
| 8409-07 | 10.0 | 11.38 | 3.13 | 2.89 | 0.047 | 45.50 | 1.56 | 1.45 | 0.188 |
| 8409-08 | 15.0 | 15.48 | 2.68 | 2.69 | 0.054 | 61.94 | 1.34 | 1.35 | 0.218 |
| 8409-09 | 20.0 | 20.22 | 2.34 | 2.24 | 0.078 | 80.90 | 1.17 | 1.12 | 0.313 |
| 8409-10 | 25.0 | 25.60 | 2.08 | 1.89 | 0.111 | 102.38 | 1.04 | 0.94 | 0.443 |
| 8409-11 | 33.0 | 34.84 | 1.79 | 1.56 | 0.162 | 139.4 | 0.89 | 0.78 | 0.649 |
| 8409-12 | 50.0 | 49.38 | 1.50 | 1.28 | 0.240 | 197.5 | 0.75 | 0.64 | 0.961 |
| 8409-13 | 68.0 | 66.44 | 1.29 | 1.07 | 0.342 | 265.8 | 0.65 | 0.54 | 1.367 |
| 8409-14 | 100.0 | 102.38 | 1.04 | 0.75 | 0.695 | 409.5 | 0.52 | 0.38 | 2.778 |
| 8409-15 | 150.0 | 152.9 | 0.85 | 0.68 | 0.842 | 611.8 | 0.43 | 0.34 | 3.366 |
| 8409-16 | 200.0 | 197.5 | 0.75 | 0.64 | 0.950 | 790.0 | 0.38 | 0.32 | 3.800 |
| 8409-17 | 300.0 | 303.7 | 0.60 | 0.58 | 1.174 | 1215 | 0.30 | 0.29 | 4.697 |

1. Measured @ 100kHz, 0.250Vrms, 0.0Aac
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. Values @ 20°C, Maximum DCR is +15% of typical value

5. Turns Ratio: (1-2):(4-3) 1:1