



**Part Number:** EFS-0351409-014

Revision 20160816 - Generated 2016-Aug-16



|                            |  |                        |
|----------------------------|--|------------------------|
| <b>A</b>                   | 34.5 ± 0.51 mm   | 1.358 ± 0.020 in       |
| <b>B</b>                   | 14.1 ± 0.23 mm   | 0.555 ± 0.009 in       |
| <b>C</b>                   | 9.4 ± 0.18 mm  | 0.370 ± 0.007 in       |
| <b>D</b>                   | 9.6 mm (min.)  | 0.378 in (min.)        |
| <b>E</b>                   | 25.3 mm (min.)   | 0.996 in (min.)        |
| <b>F</b>                   | 9.3 ± 0.20 mm  | 0.366 ± 0.008 in       |
| <b>Mass</b>                | (approximate)  | 17 grams/half          |
| <b>Magnetic Dimensions</b> | A <sub>e</sub> - Eff. Mag. Cross Section   | 0.840 cm <sup>2</sup>  |
|                            | L <sub>e</sub> - Eff. Mag. Path Length   | 6.94 cm                |
|                            | V <sub>e</sub> - Eff. Core Volume  | 5.83 cm <sup>3</sup>   |
|                            | WA - Min. Eff. Window Area   | 1.52 cm <sup>2</sup>   |
|                            | sa - Surface Area  | 38.4 cm <sup>2</sup>   |
| mlt - mean length per turn | 6.94 cm  |                        |
| <b>Inductance</b>          | μ <sub>i</sub> (reference)   | 14                     |
|                            | A <sub>L</sub> value (nominal)   | 37 nH/N <sup>2</sup>   |
|                            | Test Winding   | N=100, #20 AWG         |
|                            | Frequency  | 10 kHz                 |
|                            | Voltage on Agilent 4284A   | 0.37 V                 |
| A <sub>L</sub> tolerance   | ±8%  |                        |
| <b>Core Loss</b>           | $\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$ |                        |
|                            | where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and:<br>a=1.00E+06, b=7.92E+07, c=2.34E+06, d=5.39E-14                 |                        |
|                            | B <sub>pk</sub>  | 300 G                  |
|                            | frequency  | 100 kHz                |
|                            | Core Loss (nominal)  | 334 mW/cm <sup>3</sup> |
| Core Loss (maximum)        | 384 mW/cm <sup>3</sup>   |                        |
| <b>DC Saturation</b>       | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$   |                        |
|                            | where H expressed in oersteds, and:<br>a=0.02, b=2.59E-07, c=1.55, d=41.68   |                        |
|                            | H <sub>DC</sub>  | 200 Oe                 |
|                            | Percent Initial Perm(nom.)   | 96.9%                  |
| Percent Initial Perm(min.) | 96.0%  |                        |
| <b>Coating/Pkg</b>         | Coating Type:  | None                   |
|                            | Voltage Breakdown (min.)   | N/A                    |
|                            | Limit  | N/A                    |
|                            | Package Quantity   | 315 Halves/Box         |

|                      |                     |       |       |        |        |         |         |         |       |       |       |       |       |
|----------------------|---------------------|-------|-------|--------|--------|---------|---------|---------|-------|-------|-------|-------|-------|
| <b>Winding Table</b> | <b>Wire Size</b>    | AWG   | 12    | 14     | 16     | 18      | 20      | 22      | 24    | 26    | 28    | 30    | 32    |
|                      |                     | mm    | 2.000 | 1.600  | 1.250  | 1.000   | 0.800   | 0.630   | 0.500 | 0.400 | 0.315 | 0.250 | 0.200 |
|                      | <b>Full Winding</b> | Turns | 20    | 30     | 47     | 73      | 112     | 174     | 269   | 417   | 645   | 998   | 1,545 |
|                      | Rdc(Ω)              |       | 7.2 m | 17.2 m | 42.9 m | 106.0 m | 258.6 m | 639.0 m | 1.6   | 3.9   | 9.5   | 23.4  | 57.7  |

