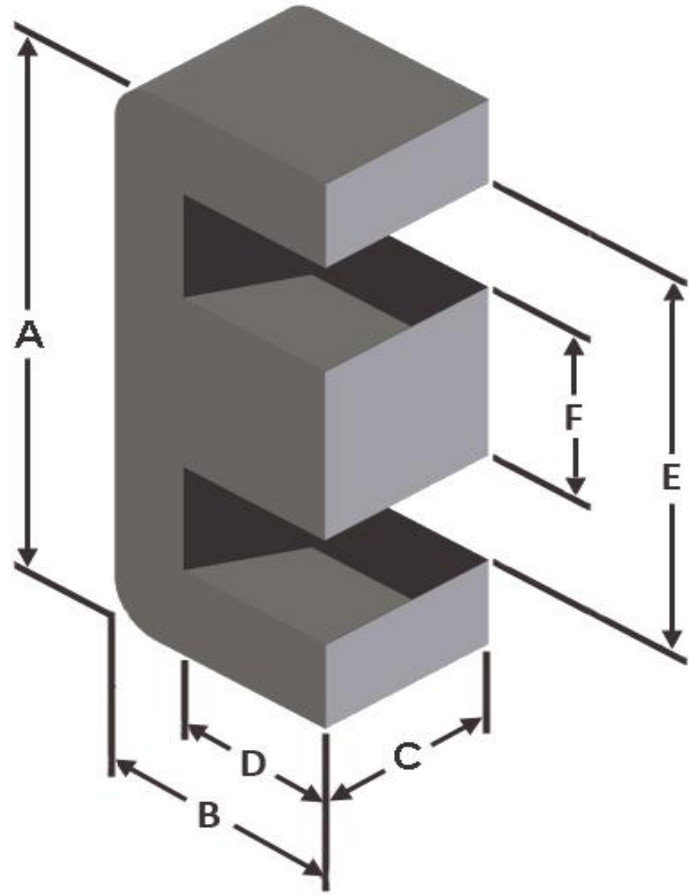




Part Number: **E220-30**

Revision 20190524 - Generated 2019-May-30



| | | | | | | | | | | | | | |
|----------------------------|--|--------------------------|--------|--------|--------|---------|---------|-------|-------|-------|-------|-------|-------|
| A | 56.13 ± 0.38 mm | 2.210 ± 0.015 in | | | | | | | | | | | |
| B | 27.69 ± 0.20 mm | 1.090 ± 0.008 in | | | | | | | | | | | |
| C | 20.83 ± 0.25 mm | 0.820 ± 0.010 in | | | | | | | | | | | |
| D | 19.18 mm (nom.) | 0.755 in (nom.) | | | | | | | | | | | |
| E | 38.61 mm (nom.) | 1.520 in (nom.) | | | | | | | | | | | |
| F | 17.27 ± 0.18 mm | 0.680 ± 0.007 in | | | | | | | | | | | |
| Mass | (approximate) | 140 grams/half | | | | | | | | | | | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 3.60 cm ² | | | | | | | | | | | |
| | L _e - Eff. Mag. Path Length | 13.2 cm | | | | | | | | | | | |
| | V _e - Eff. Core Volume | 47.7 cm ³ | | | | | | | | | | | |
| | WA - Min. Eff. Window Area | 4.06 cm ² | | | | | | | | | | | |
| | sa - Surface Area | 125 cm ² | | | | | | | | | | | |
| Inductance | mlt - mean length per turn | 11.9 cm | | | | | | | | | | | |
| | μ _i (reference) | 22 | | | | | | | | | | | |
| | A _L value (nominal) | 107 nH/N ² | | | | | | | | | | | |
| | Test Winding | N=100, #16 AWG | | | | | | | | | | | |
| | Frequency | 10 kHz | | | | | | | | | | | |
| Core Loss | Voltage on Agilent 4284A | 1.6 V | | | | | | | | | | | |
| | A _L tolerance | ±10% | | | | | | | | | | | |
| | $\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ | | | | | | | | | | | | |
| | where B _{pk} expressed in gauss, f expressed in hertz, and: a=3.30E+08, b=2.00E+07, c=2.00E+06, d=1.10E-13 | | | | | | | | | | | | |
| | B _{pk} | 140 G | | | | | | | | | | | |
| DC Saturation | frequency | 100 kHz | | | | | | | | | | | |
| | Core Loss (nominal) | 129 mW/cm ³ | | | | | | | | | | | |
| | Core Loss (maximum) | 149 mW/cm ³ | | | | | | | | | | | |
| | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ | | | | | | | | | | | | |
| | where H expressed in oersteds, and: a=1.00E-02, b=4.10E-06, c=1.34, d=0.00 | | | | | | | | | | | | |
| Coating/Pkg | H _{DC} | 200 Oe | | | | | | | | | | | |
| | Percent Initial Perm(nom.) | 66.7% | | | | | | | | | | | |
| | Percent Initial Perm(min.) | 61.1% | | | | | | | | | | | |
| | Coating Type: | None, Green/Gray Stripes | | | | | | | | | | | |
| | Voltage Breakdown (min.) | N/A | | | | | | | | | | | |
| Winding Table | Limit | N/A | | | | | | | | | | | |
| | Package Quantity | 80 Halves/Box | | | | | | | | | | | |
| | Wire Size | AWG | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 |
| | | mm | 3.150 | 2.500 | 2.000 | 1.600 | 1.250 | 1.000 | 0.800 | 0.630 | 0.500 | 0.400 | 0.315 |
| | Full Winding | Turns | 22 | 34 | 52 | 81 | 126 | 194 | 301 | 465 | 720 | 1,115 | 1,726 |
| Rdc(Ω) | | 5.4 m | 13.2 m | 32.1 m | 79.6 m | 197.0 m | 482.4 m | 1.2 | 2.9 | 7.2 | 17.7 | 43.7 | |

