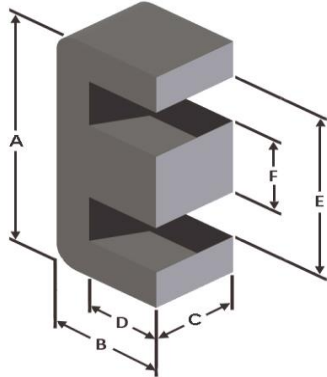




Part Number: EMS-0803820-040

Revision 2021-Dec-02 - Generated 2021-Dec-02



A	80 ± 1.19 mm	3.150 ± 0.047 in
B	38.1 ± 0.58 mm	1.500 ± 0.023 in
C	19.8 ± 0.41 mm	0.780 ± 0.016 in
D	28.1 mm (min.)	1.106 in (min.)
E	59.3 mm (min.)	2.335 in (min.)
F	19.8 ± 0.41 mm	0.780 ± 0.016 in

Mass	(approximate)	190 grams/half
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Magnetic Dimensions	A _e - Eff. Mag. Cross Section	3.89 cm ²
	L _e - Eff. Mag. Path Length	18.5 cm
	V _e - Eff. Core Volume	72.1 cm ³
	WA - Min. Eff. Window Area	11.0 cm ²
	sa - Surface Area	229 cm ²
	mlt - mean length per turn	15.8 cm

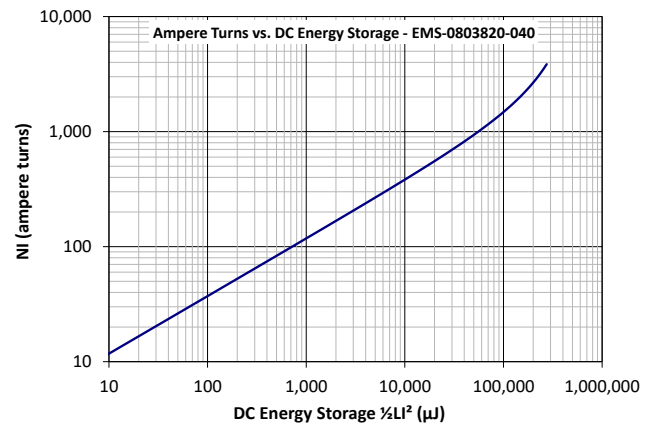
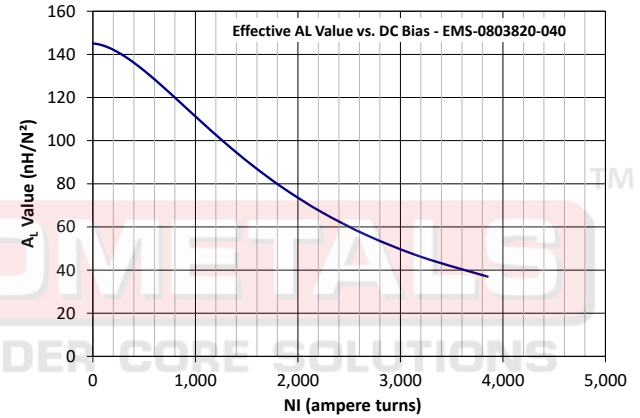
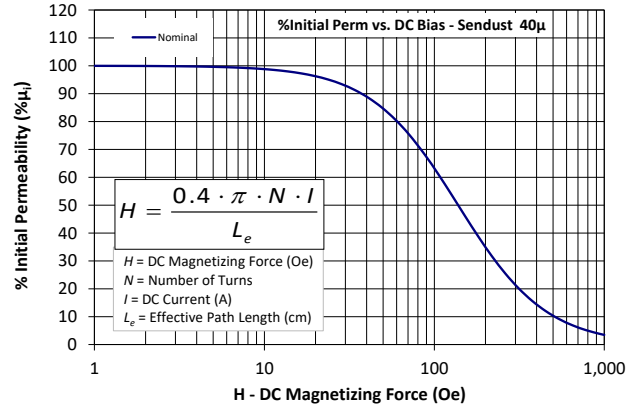
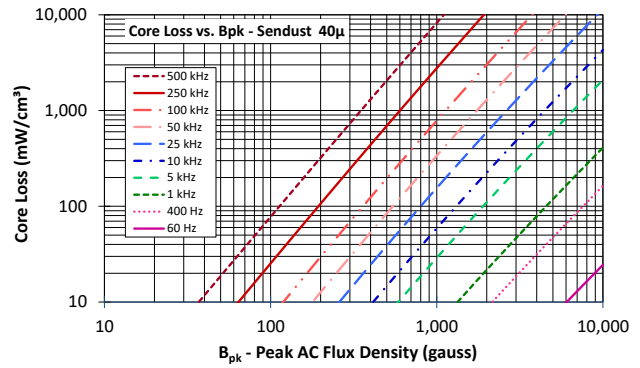
Inductance	μ _i (reference)	40
	A _L value (nominal)	145 nH/N ²
	Test Winding	N=100, #14 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	1.7 V
	A _L tolerance	±8%

Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{B_{pk}^3} + \frac{f}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$	
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=1.00E+06, b=6.80E+08, c=8.07E+06, d=2.16E-14	
	B _{pk}	1000 G
	frequency	50 kHz
	Core Loss (nominal)	338 mW/cm ³
	Core Loss (maximum)	388 mW/cm ³

DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and: a=0.01, b=2.54E-06, c=1.68, d=0.00	
	H _{dc}	100 Oe
	Percent Initial Perm(nom.)	63.2%
	Percent Initial Perm(min.)	55.9%

Coating/Pkg	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	60 Halves/Box

Winding Table	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	59	92	142	220	340	526	814	1,260	1,950	3,019	4,672
		Rdc(Ω)	19.2 m	47.6 m	116.8 m	287.9 m	707.5 m	1.7	4.3	10.5	26.0	63.9	157.3



Handling and Storage: Cores should be stored in the original unopened packaging between -10°C and +50°C and less than 60% relative humidity. After the original packaging is opened, the cores should be stored between -8°C and +25°C less than 30% relative humidity. Gloves should be used when handling uncoated cores. The cores should also be sheltered from rain, moisture, salt water, salt air, plasters, ashes, sulfur, sulfur dioxide, ammonia sulfates, soils, acids, metals shavings, and solvents.

Operating Temperature: Cores can be used continuously at operating temperatures between -60°C and +200°C.

RoHS 2.0, REACH and ISO (TS16949, ISO 9001, ISO 14001) compliant. Statements available for download at www.micrometals.com.

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