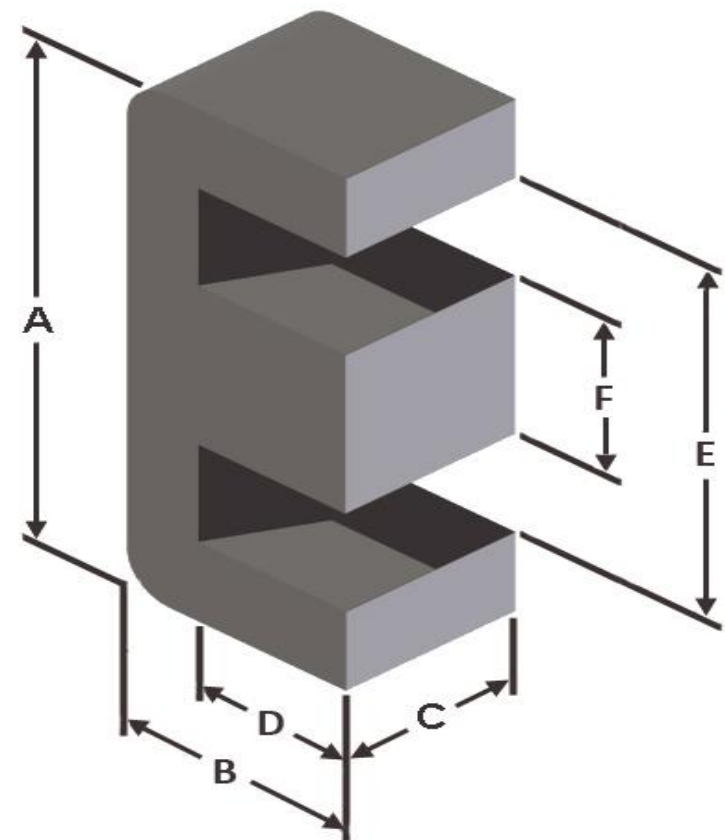




**Part Number:** EMS-0432115-040

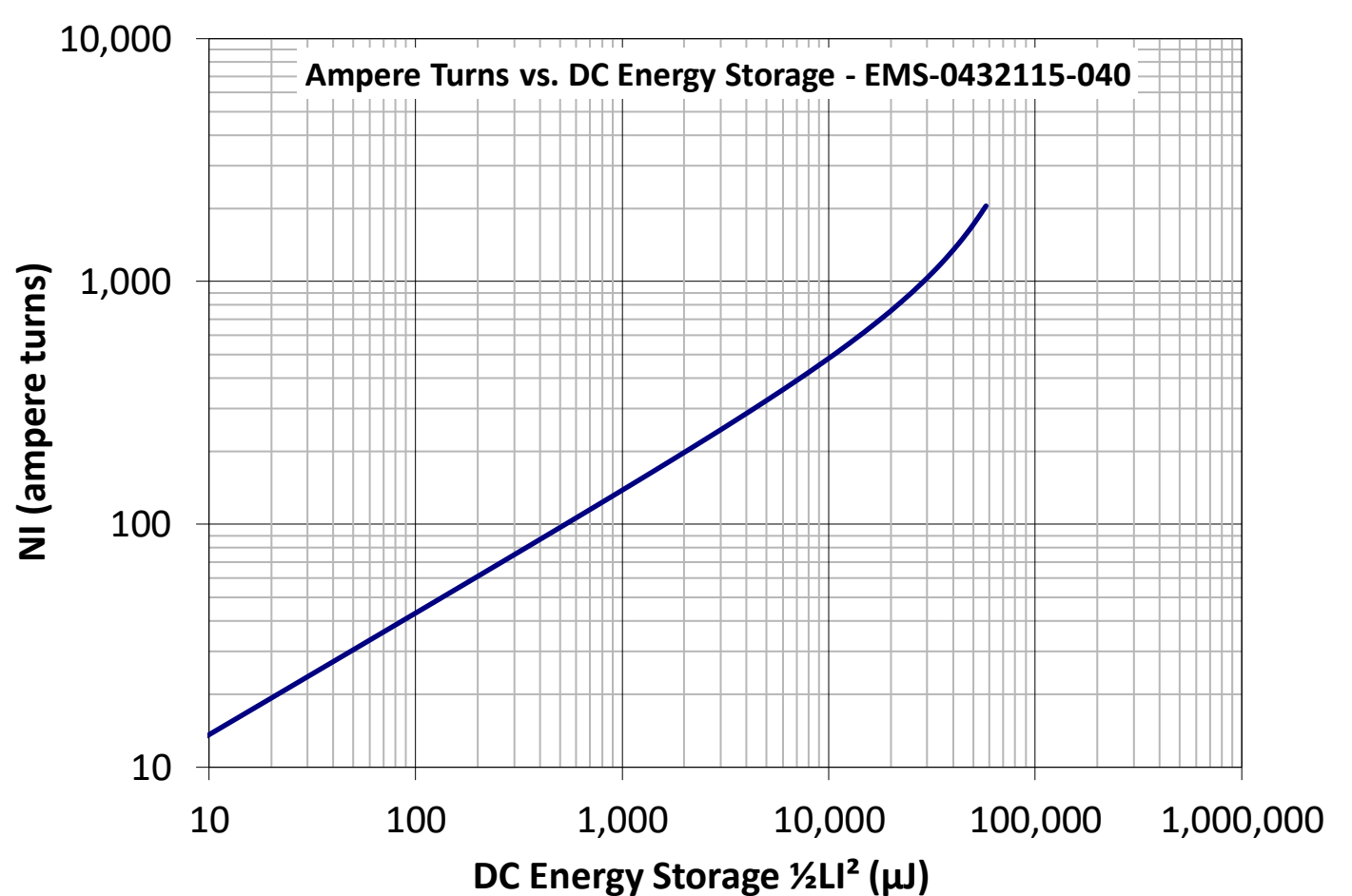
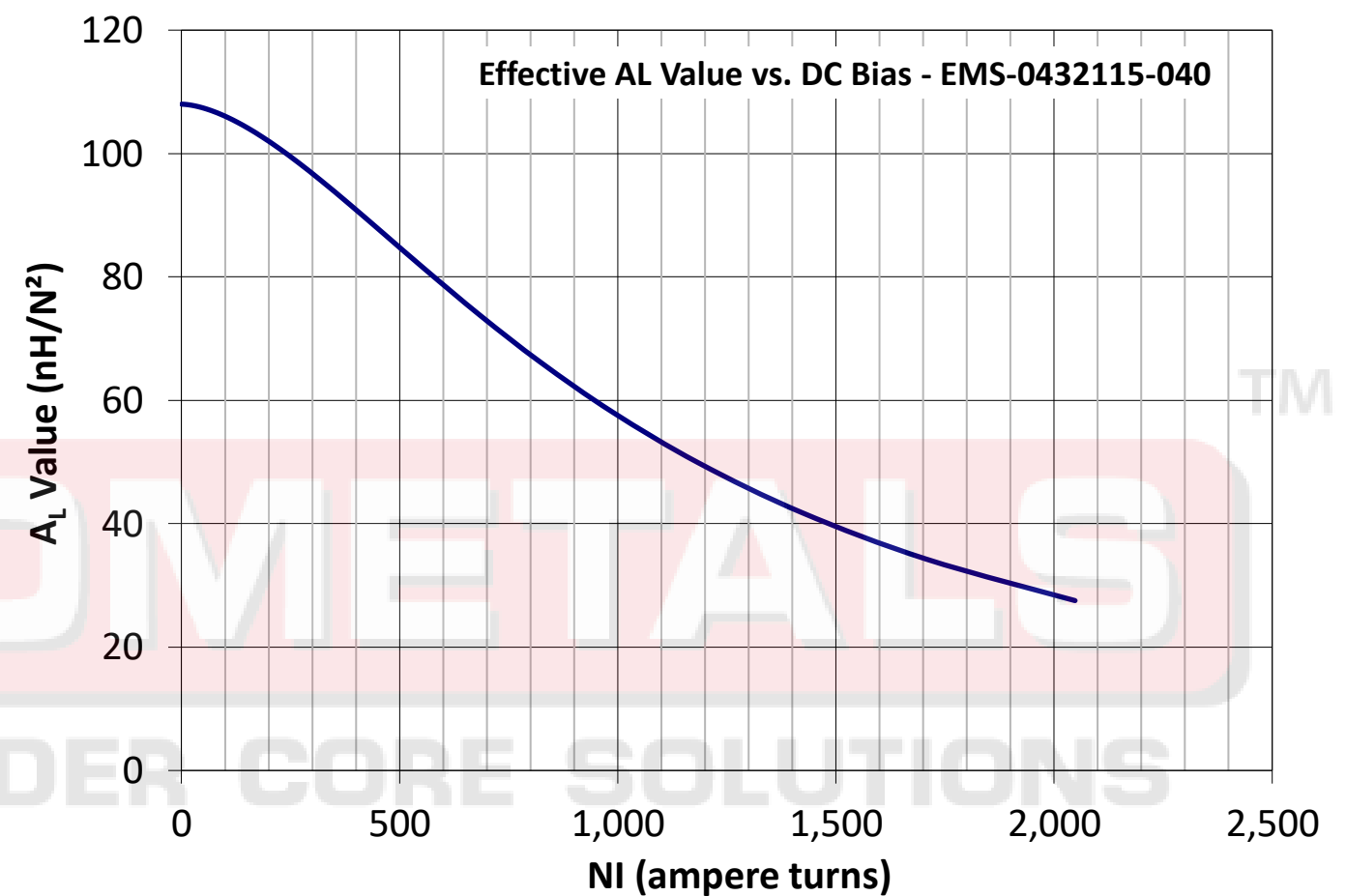
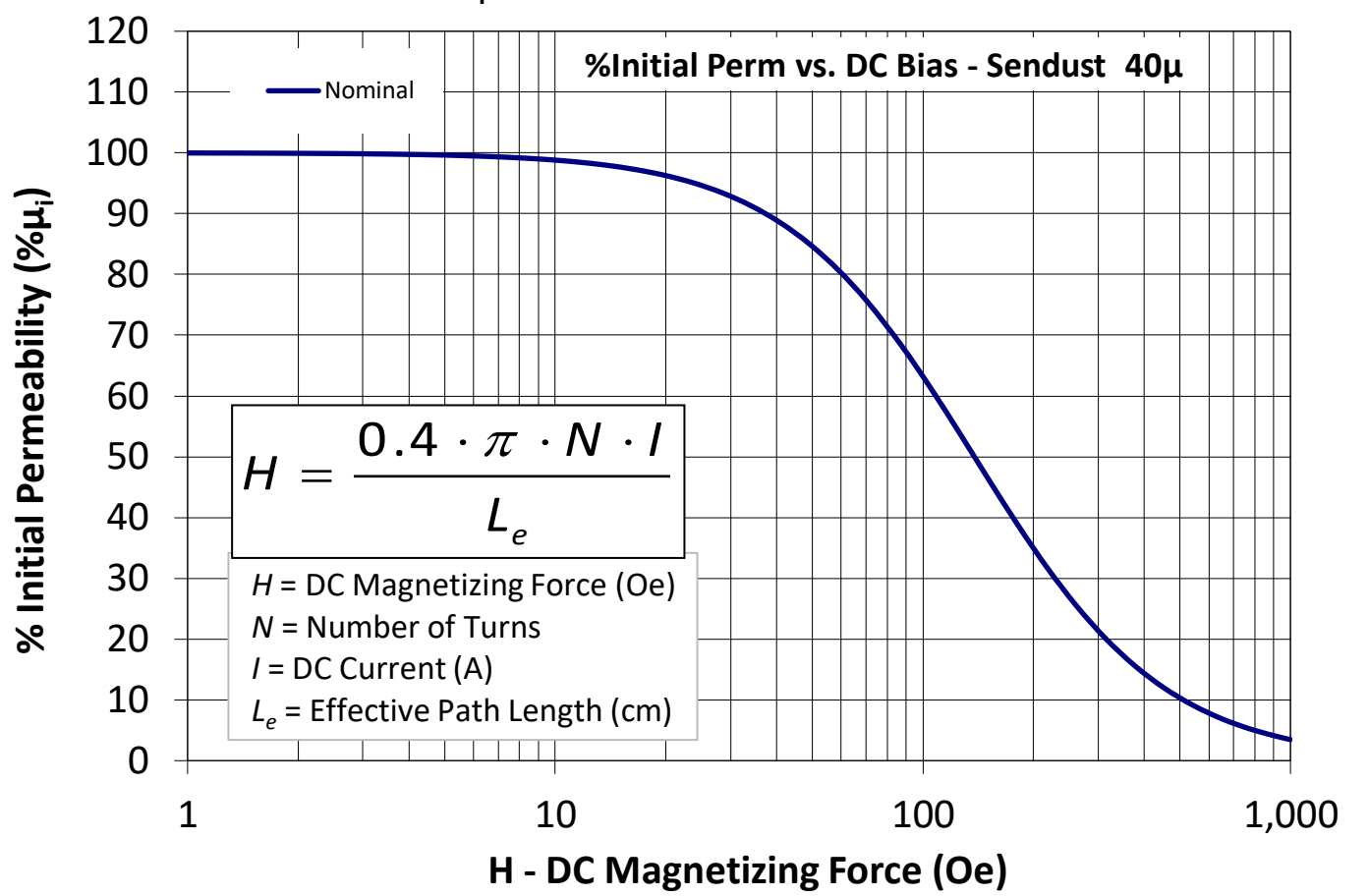
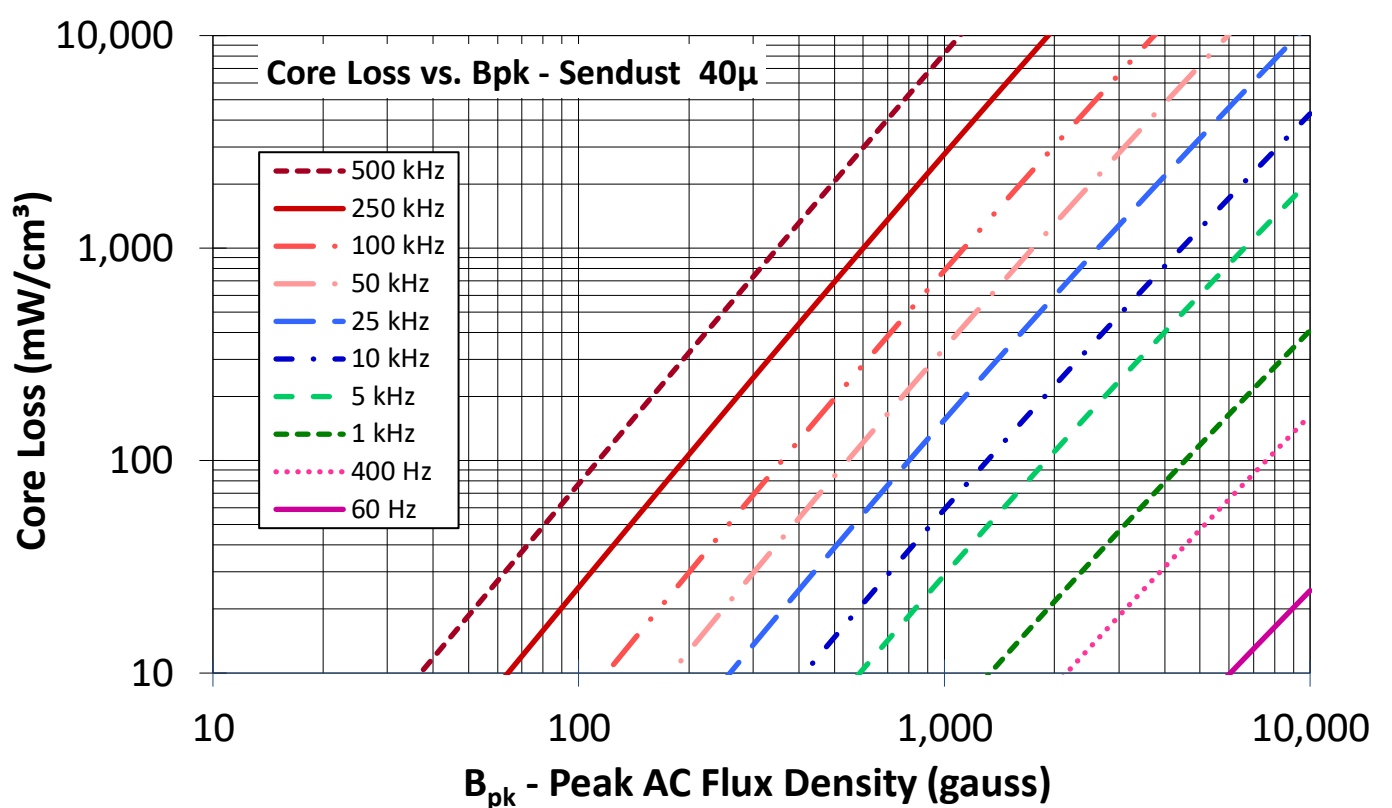
Revision 2021-Oct-22 - Generated 2022-Jan-17



<b>A</b>	42.8 ± 0.64 mm	1.685 ± 0.025 in
<b>B</b>	21.1 ± 0.33 mm	0.831 ± 0.013 in
<b>C</b>	15.4 ± 0.25 mm	0.606 ± 0.010 in
<b>D</b>	15 mm (min.)	0.591 in (min.)
<b>E</b>	30.4 mm (min.)	1.197 in (min.)
<b>F</b>	11.9 ± 0.25 mm	0.469 ± 0.010 in

<b>Mass</b>	(approximate)	47 grams/half								
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	1.83 cm <sup>2</sup>								
	L <sub>e</sub> - Eff. Mag. Path Length	9.84 cm								
	V <sub>e</sub> - Eff. Core Volume	18.0 cm <sup>3</sup>								
	WA - Min. Eff. Window Area	2.74 cm <sup>2</sup>								
	sa - Surface Area	73.5 cm <sup>2</sup>								
<b>Inductance</b>	μ <sub>i</sub> (reference)	40								
	A <sub>L</sub> value (nominal)	108 nH/N <sup>2</sup>								
	Test Winding	N=100, #18 AWG								
	Frequency	10 kHz								
	Voltage on Agilent 4284A	0.81 V								
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ <p>where B<sub>pk</sub> expressed in gauss, f expressed in hertz, and:  a=1.00E+06, b=6.80E+08, c=8.07E+06, d=2.16E-14</p> <table border="1"> <tr> <td>B<sub>pk</sub></td> <td>1000 G</td> </tr> <tr> <td>frequency</td> <td>50 kHz</td> </tr> <tr> <td>Core Loss (nominal)</td> <td>338 mW/cm<sup>3</sup></td> </tr> <tr> <td>Core Loss (maximum)</td> <td>388 mW/cm<sup>3</sup></td> </tr> </table>		B <sub>pk</sub>	1000 G	frequency	50 kHz	Core Loss (nominal)	338 mW/cm <sup>3</sup>	Core Loss (maximum)	388 mW/cm <sup>3</sup>
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frequency	50 kHz									
Core Loss (nominal)	338 mW/cm <sup>3</sup>									
Core Loss (maximum)	388 mW/cm <sup>3</sup>									
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ <p>where H expressed in oersteds, and:  a=0.01, b=2.54E-06, c=1.68, d=0.00</p> <table border="1"> <tr> <td>H<sub>DC</sub></td> <td>100 Oe</td> </tr> <tr> <td>Percent Initial Perm.(nom.)</td> <td>63.2%</td> </tr> <tr> <td>Percent Initial Perm.(min.)</td> <td>55.9%</td> </tr> </table>		H <sub>DC</sub>	100 Oe	Percent Initial Perm.(nom.)	63.2%	Percent Initial Perm.(min.)	55.9%		
	H <sub>DC</sub>	100 Oe								
	Percent Initial Perm.(nom.)	63.2%								
	Percent Initial Perm.(min.)	55.9%								
<b>Coating/Pkg</b>	Coating Type:	None								
	Voltage Breakdown (min.)	N/A								
	Limit	N/A								
	Package Quantity	300 Halves/Box								

<b>Winding Table</b>	<b>Wire Size</b>	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
	<b>Full Winding</b>	Turns	15	23	35	55	85	131	203	314	486	752	1,164
		Rdc(Ω)	2.8 m	6.9 m	16.7 m	41.7 m	102.4 m	251.0 m	618.7 m	1.5	3.7	9.2	22.7



**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](http://www.micrometals.com).**

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[www.Micrometals.com](http://www.Micrometals.com)