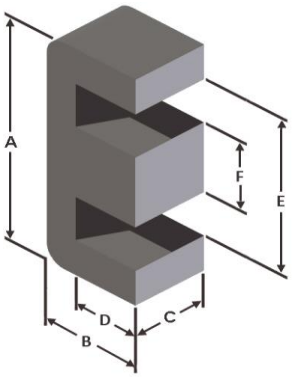
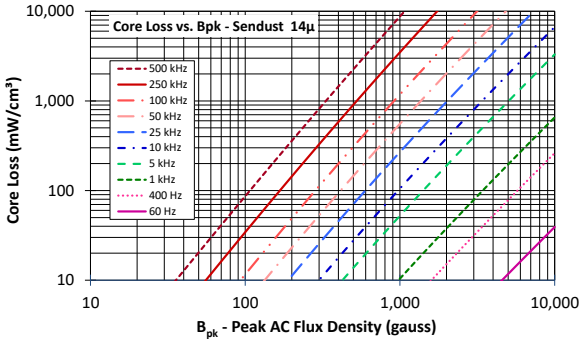
MICROMETALS
ALLOY POWDER CORES

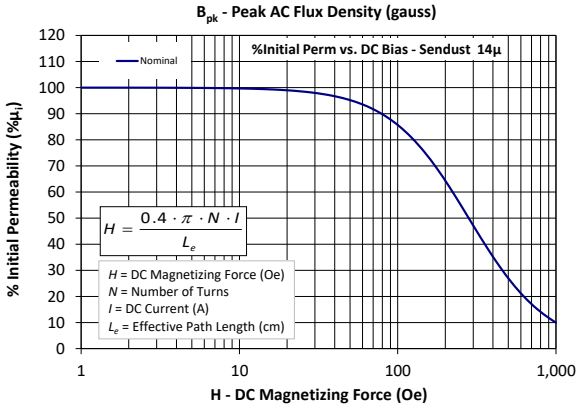
Part Number:	EMS-0802420-014

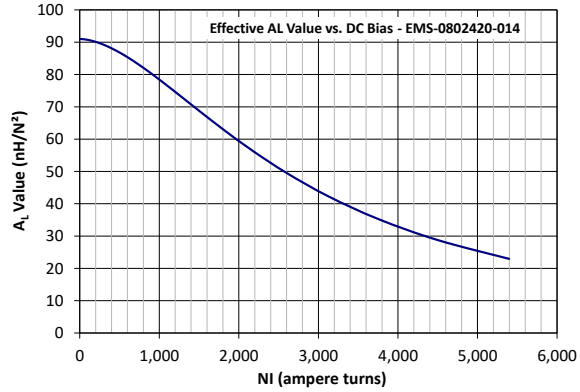
Revision 20180523 - Generated 2018-May-23

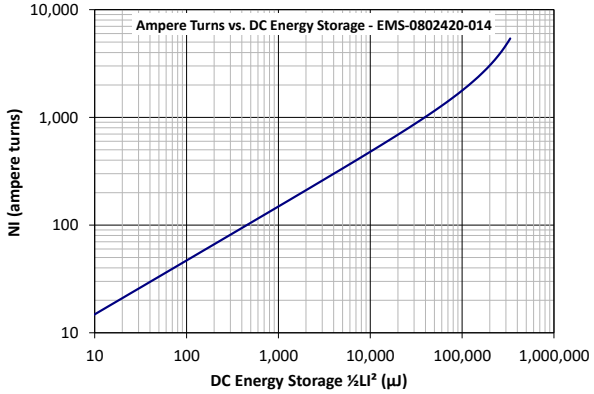


A	80 ± 1.19 mm	3.150 ± 0.047 in
B	24.05 ± 0.58 mm	0.947 ± 0.023 in
C	19.8 ± 0.41 mm	0.780 ± 0.016 in
D	14.05 mm (min.)	0.553 in (min.)
E	59.3 mm (min.)	2.335 in (min.)
F	19.8 ± 0.41 mm	0.780 ± 0.016 in
Mass	(approximate)	120 grams/half
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	3.89 cm²
	L_e - Eff. Mag. Path Length	12.88 cm
	V_e - Eff. Core Volume	50.1 cm³
	WA - Min. Eff. Window Area	5.49 cm²
	sa - Surface Area	162 cm²
	mlt - mean length per turn	15.8 cm
Inductance	μ_i(reference)	14
	A_L value (nominal)	91 nH/N²
	Test Winding	N=100, #16 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	1.7 V
	A_L tolerance	±8%
Core Loss	Core Loss(mW/cm³)= $\frac{f}{\frac{a}{Bpk^3}+\frac{b}{Bpk^{2.3}}+\frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$	
	where B_{pk} expressed in gauss, f expressed in hertz, and:	
	a=1.00E+06, b=2.84E+08, c=5.38E+06, d=1.42E-14	
	B_{pk}	300 G
	frequency	100 kHz
	Core Loss (nominal)	112 mW/cm³
	Core Loss (maximum)	129 mW/cm³
DC Saturation	$\%\mu_i : \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	
	a=0.01, b=5.74E-07, c=1.73, d=0.00	
	H_{DC}	200 Oe
	Percent Initial Perm(nom.)	64.3%
	Percent Initial Perm(min.)	56.8%
Coating/Pkg	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	84 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	30	46	71	110	170	263	407	630	975	1,509	2,336
	Rdc(Ω)	9.8 m	23.8 m	58.4 m	143.9 m	353.8 m	870.4 m	2.1	5.3	13.0	31.9	78.7

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.micrometalsapc.com.

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