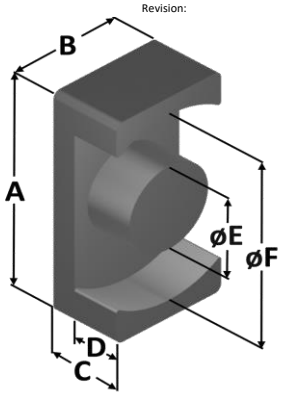
MICROMETALS™
POWDER CORE SOLUTIONS

Part Number:	EQMS-205140055-060
Revision:	2023-Dec-18



A	20.50 ± 0.30 mm	0.807 ± 0.012 in
B	14.00 ± 0.20 mm	0.551 ± 0.008 in
C	5.500 ± 0.203 mm	0.217 ± 0.008 in
D	2.800 mm (min.)	0.110 in (min.)
E	8.800 ± 0.20 mm	0.346 ± 0.008 in
F	17.80 mm (min.)	0.701 in (min.)
Mass	(approximate)	5.5 grams/half

Magnetic Dimensions

A_e - Eff. Mag. Cross Section	0.608 cm²
L_e - Eff. Mag. Path Length	3.48 cm
V_e - Eff. Core Volume	2.12 cm³
WA - Min. Eff. Window Area	0.246 cm²
sa - Surface Area	14.0 cm²
mlt - mean length per turn	4.18 cm

Inductance

μ_i(reference)	60
A_L value (nominal)	132 nH/N²
Test Winding	N=10, #26 AWG
Frequency	10 kHz
Voltage on Agilent 4284A	0.027 V
A_L tolerance	±12%

Core Loss

$$\text{Core Loss(mW/cm}^3\text{)} = \frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$$

where B_{pk} expressed in gauss, f expressed in hertz, and:
a=1.000E+06, b=7.118E+08, c=7.401E+06, d=1.301E-14

B_{pk}	1000	G
frequency	50 k	Hz
Core Loss (nominal)	322	mW/cm³
Core Loss (maximum)	370	mW/cm³

DC Saturation

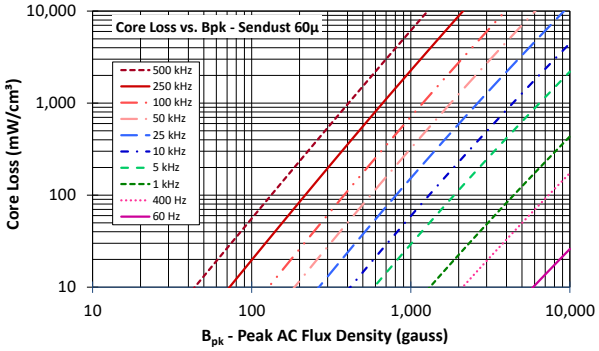
$$\%\mu_i = \frac{1}{a + b \cdot H^c} + d$$

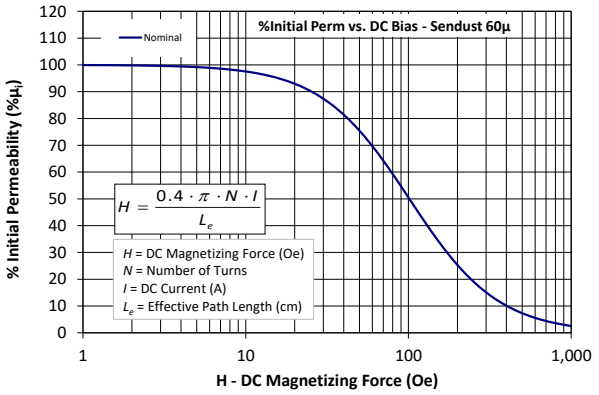
where H expressed in oersteds, and:
a=1.000E-02, b=6.470E-06, c=1.590, d=0.000

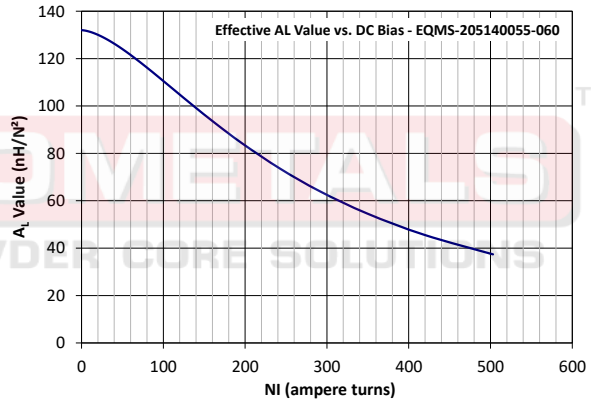
H_{DC}	100	Oe
Percent Initial Perm(nom.)	50.5	%
Percent Initial Perm(min.)	43.3	%

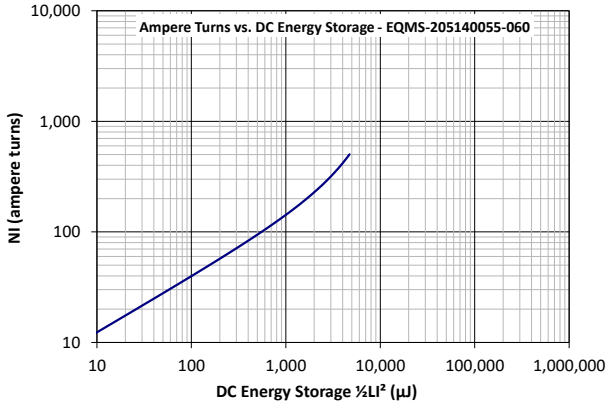
Coating/Pkg

Coating Type:	None
Voltage Breakdown (min.)	N/A
Limit	N/A
Package Quantity	1,008 Halves/Box









Winding Table

Wire Size	AWG	20	22	24	26	28	30	32	34	36	38	40
	mm	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080
Full Winding	Turns	18	28	44	68	105	162	251	388	601	930	1,440
	Rdc(Ω)	25.0 m	61.9 m	154.7 m	380.3 m	933.8 m	2.3	5.6	13.9	34.2	84.2	207.2

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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