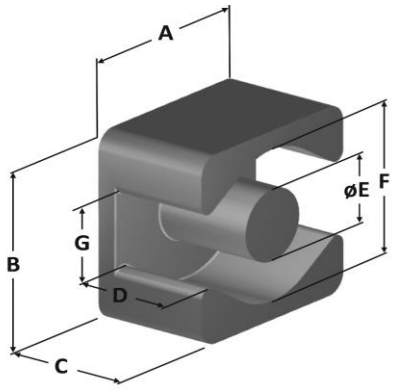
MICROMETALS™
POWDER CORE SOLUTIONS

Part Number:	HC071B38B-52120

Revision 20200506 - Generated 2020-May-06



A	7.10 ± 0.20 mm	0.280 ± 0.008 in
B	7.35 ± 0.20 mm	0.289 ± 0.008 in
C	3.75 ± 0.10 mm	0.148 ± 0.004 in
D	2.73 mm (min.)	0.108 in (min.)
E	2.62 ± 0.10 mm	0.103 ± 0.004 in
F	6.15 mm (min.)	0.242 in (min.)
G	3.50 mm (nom.)	0.138 in (nom.)
Mass	(approximate)	0.78 grams/half

Magnetic Dimensions

when matched with IC (thickness=0.92 mm. nom.)

A_e - Eff. Mag. Cross Section	0.104 cm²
L_e - Eff. Mag. Path Length	1.42 cm
V_e - Eff. Core Volume	0.159 cm³
WA - Min. Eff. Window Area	0.0485 cm²
sa - Surface Area	2.39 cm²
mlt - mean length per turn	1.40 cm

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=1.00E+09, b=1.10E+08, c=2.10E+06, d=6.90E-14

B_{pk}	140 G
frequency	100 kHz
Core Loss (nominal)	58 mW/cm³
Core Loss (maximum)	67 mW/cm³

DC Saturation

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

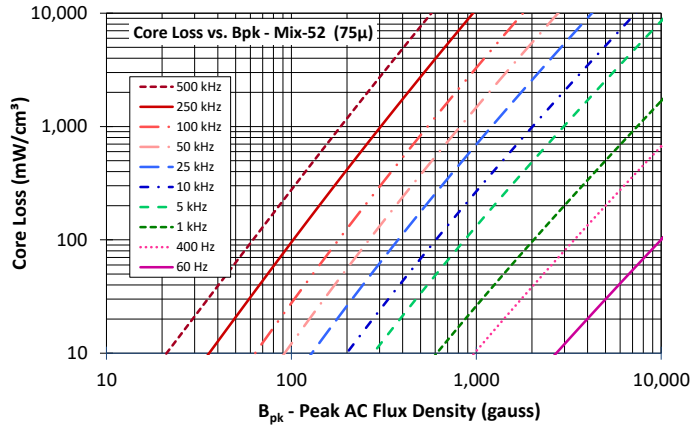
where H expressed in oersteds, and:

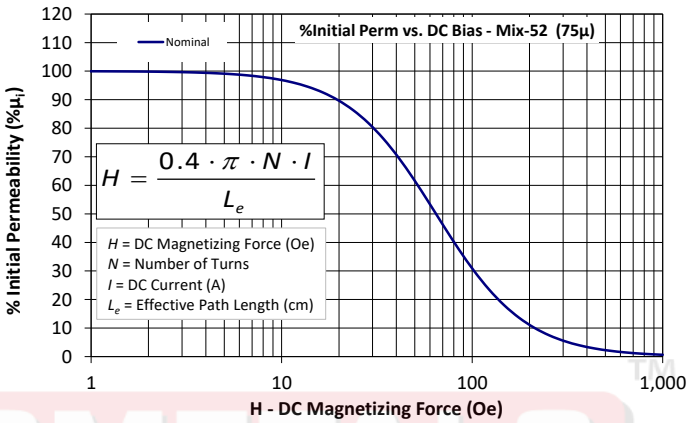
a=1.00E-02, b=4.66E-06, c=1.84, d=0.00

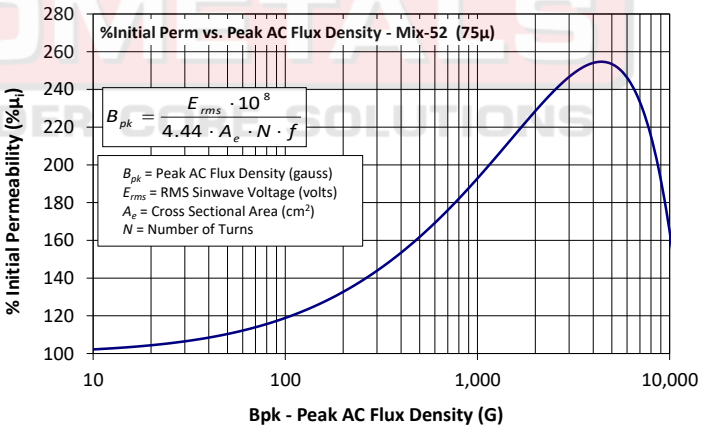
H_{DC}	50 Oe
Percent Initial Perm(nom.)	61.6%
Percent Initial Perm(min.)	53.4%

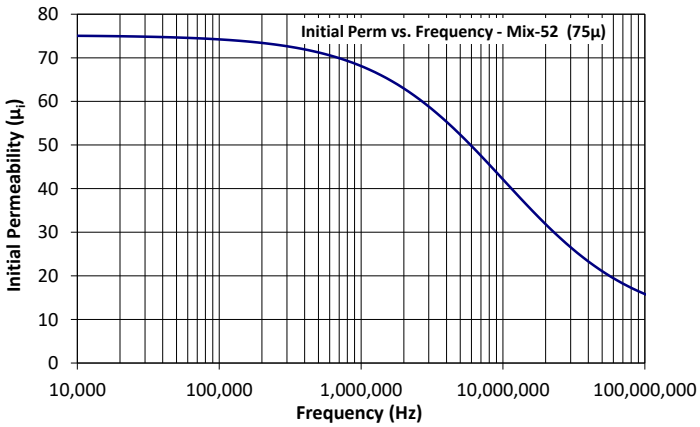
Coating/Pkg

Coating Type:	Per UL Card File #E140098(S), Black, Outer Surface only
Voltage Breakdown (min.)	200Vrms, 60Hz
Limit	3 mA, 5 s
Package Quantity	14,000 Halves/Box









Winding Table

Wire Size	AWG	24	26	28	30	32	34	36	38	40	42	44
	mm	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050
Full Winding	Turns	9	13	21	32	49	77	118	183	284	439	680
	Rdc(Ω)	10.6 m	24.4 m	62.6 m	151.7 m	369.5 m	923.5 m	2.3	5.6	13.7	33.7	83.0

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