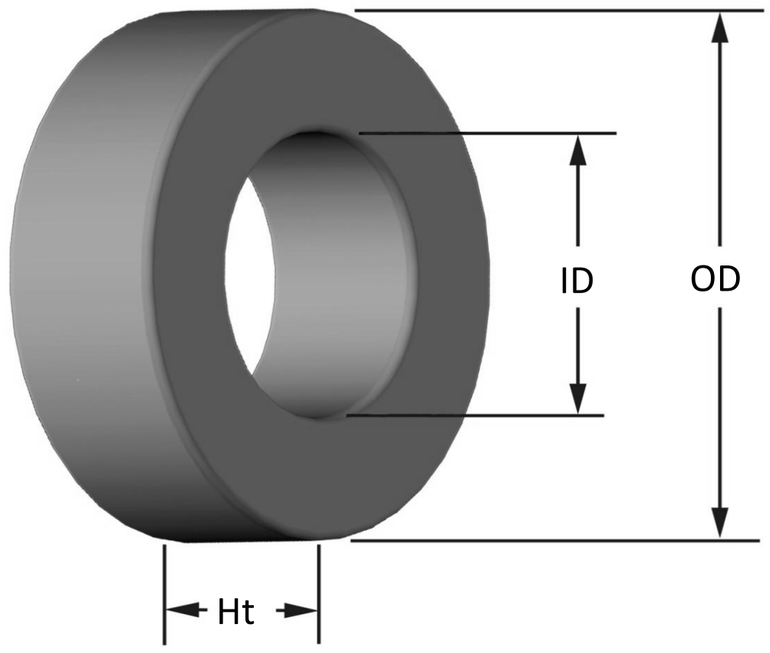
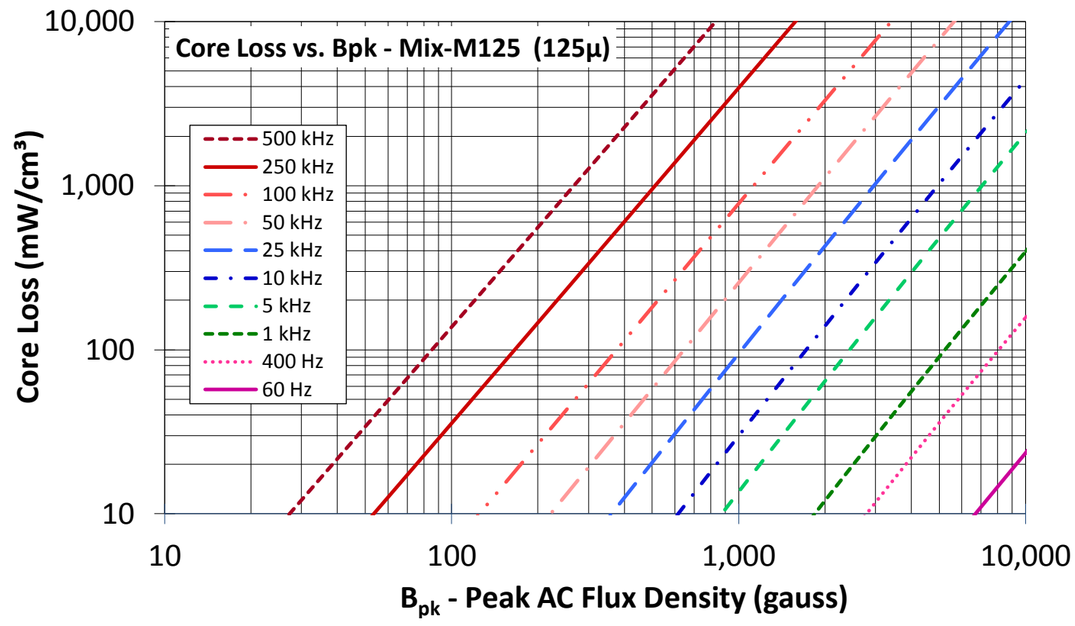
MICROMETALS™
POWDER CORE SOLUTIONS

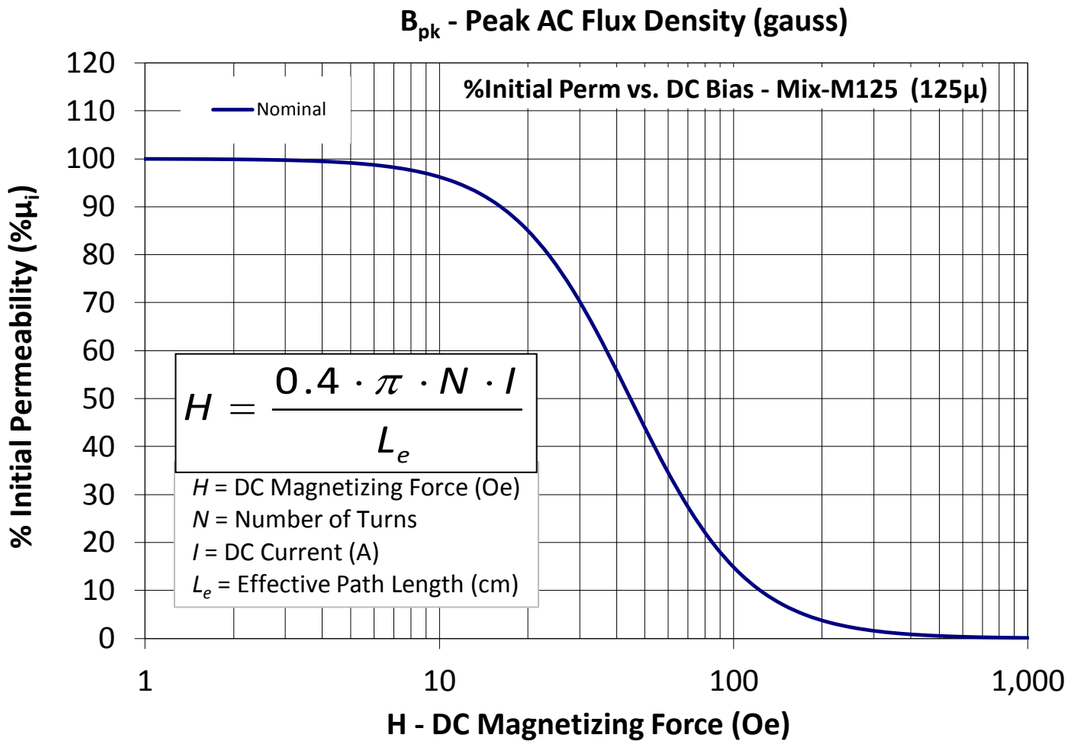
Part Number:	T39-M125

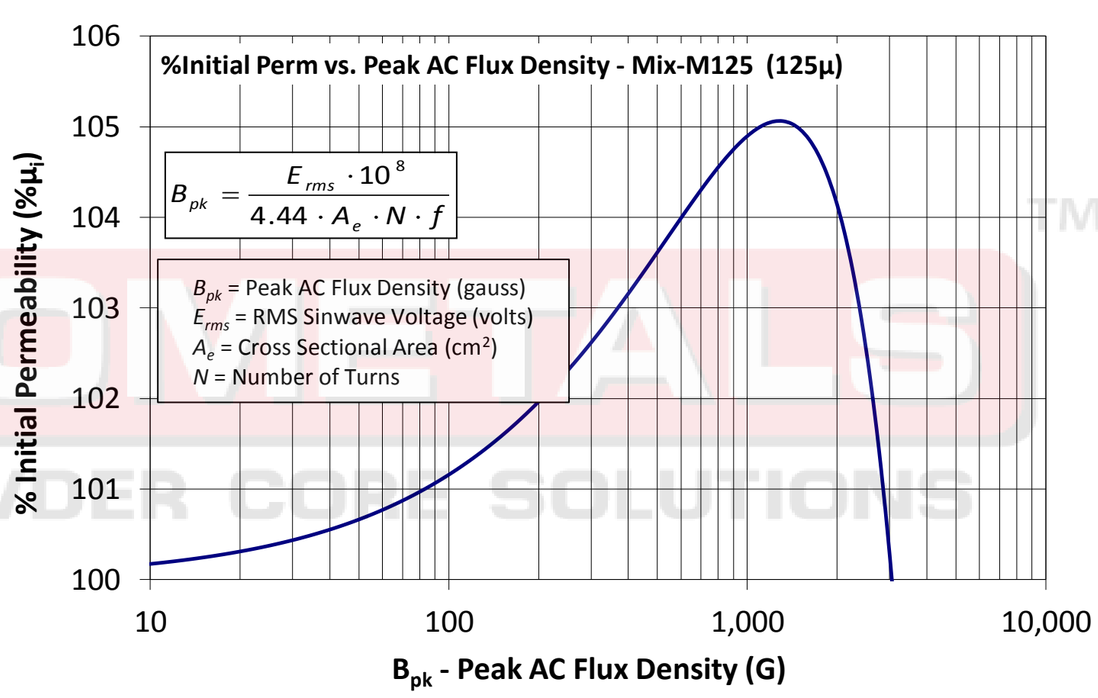
Revision 20190524 - Generated 2019-May-30

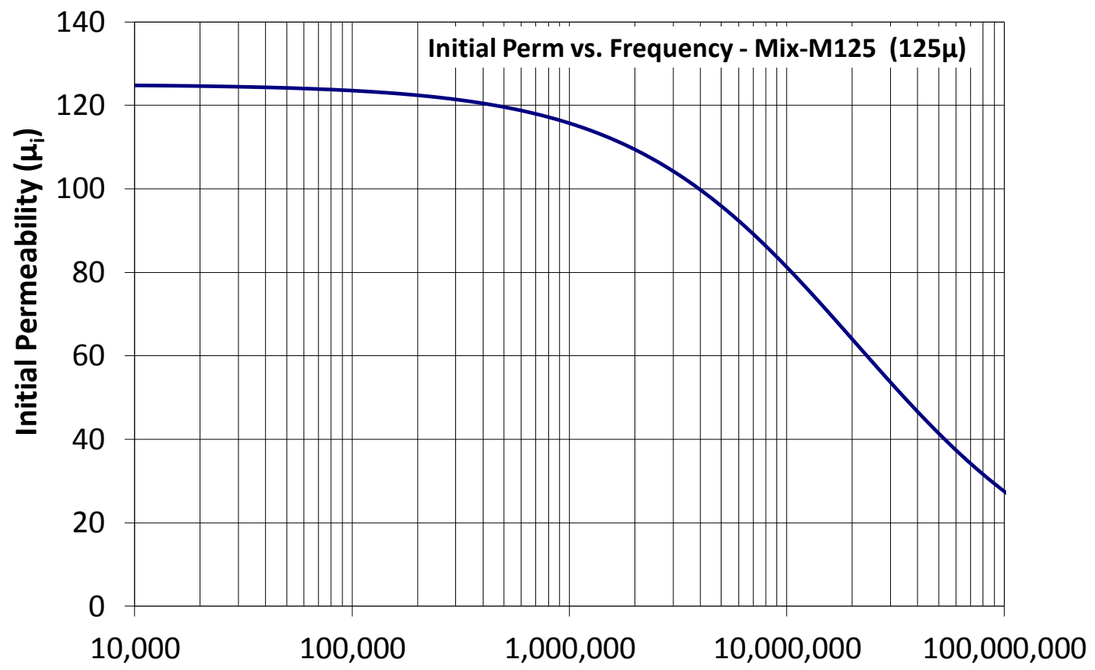


OD	(nom. - bare core)	9.65 mm	0.380 in
	(max. - after coating)	10.16 mm	0.400 in
ID	(nom. - bare core)	4.78 mm	0.188 in
	(min. - after coating)	4.27 mm	0.168 in
Ht	(nom. - bare core)	3.18 mm	0.125 in
	(max. - after coating)	3.68 mm	0.145 in
Mass	(approximate)	1.3 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0730 cm²	
	L_e - Eff. Mag. Path Length	2.27 cm	
	V_e - Eff. Core Volume	0.167 cm³	
	WA - Min. Eff. Window Area	0.143 cm²	
	sa - Surface Area	3.49 cm²	
	mlt - mean length per turn	1.54 cm	
Inductance	μ_i(reference)	125	
	A_L value (nominal)	53.3 nH/N²	
	Test Winding	N=50, #34 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.016 V	
	A_L tolerance	±10%	
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=3.10E+10, b=2.70E+09, c=3.30E+06, d=5.30E-14		
	Bpk	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	13 mW/cm³	
	Core Loss (maximum)	15 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=2.70E-06, c=2.16, d=0.00		
	H_{DC}	50 Oe	
	Percent Initial Perm(nom.)	43.9%	
	Percent Initial Perm(min.)	34.5%	
Coating/Pkg	Coating Type:	Lt.Blue/Lt.Blue Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	12,000 Pcs/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
	Single Layer	Turns	11	14	18	23	29	37	47	59	74	93	116
		Rdc(Ω)	5.6 m	11.4 m	23.3 m	47.4 m	95.0 m	192.8 m	389.5 m	777.6 m	1.6	3.1	6.1
	Full Winding	Turns	10	16	25	38	59	91	141	219	339	524	812
		Rdc(Ω)	5.1 m	13.0 m	32.4 m	78.3 m	193.3 m	474.2 m	1.2	2.9	7.1	17.5	43.0

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