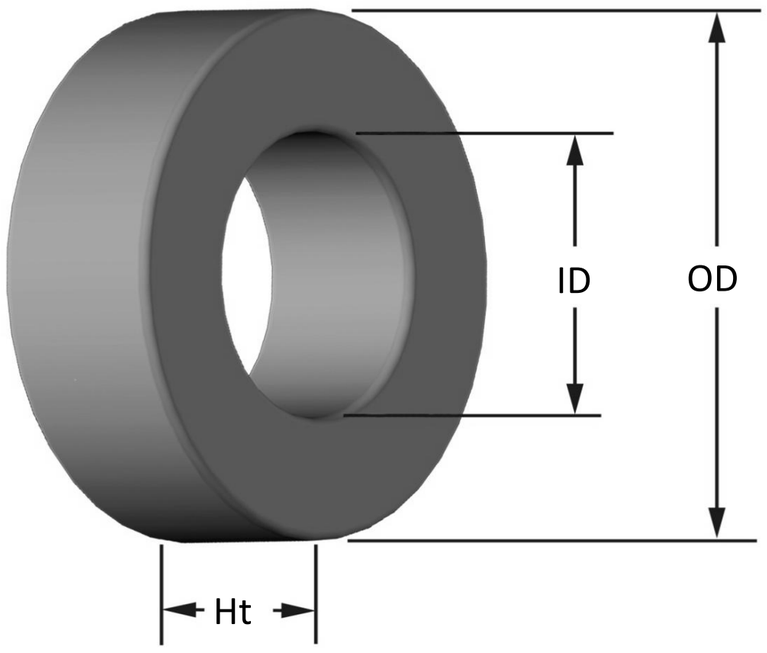
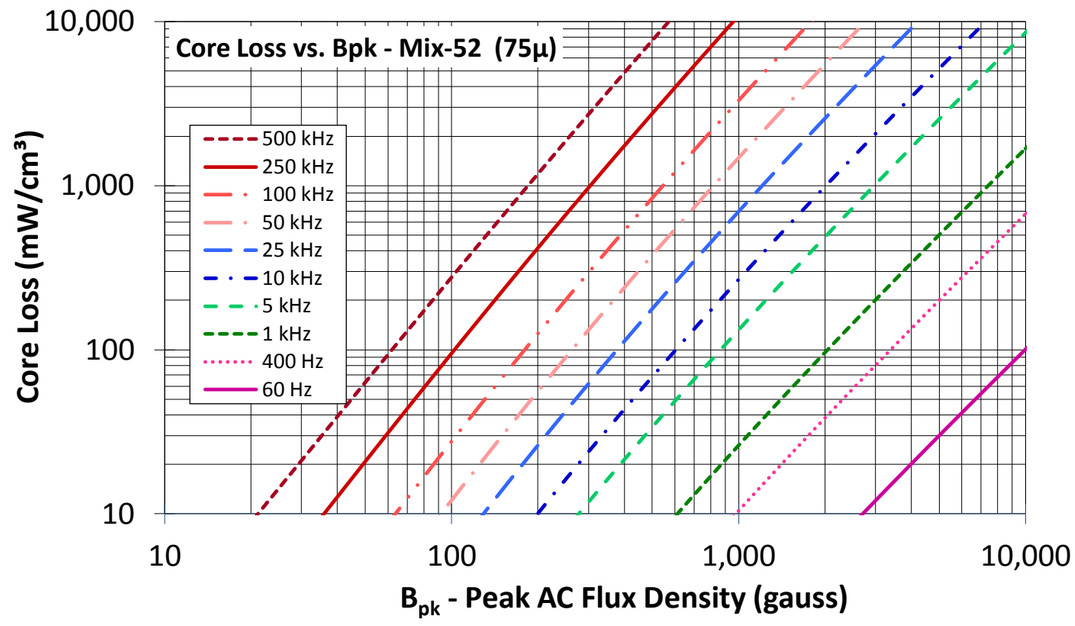
MICROMETALS™
POWDER CORE SOLUTIONS

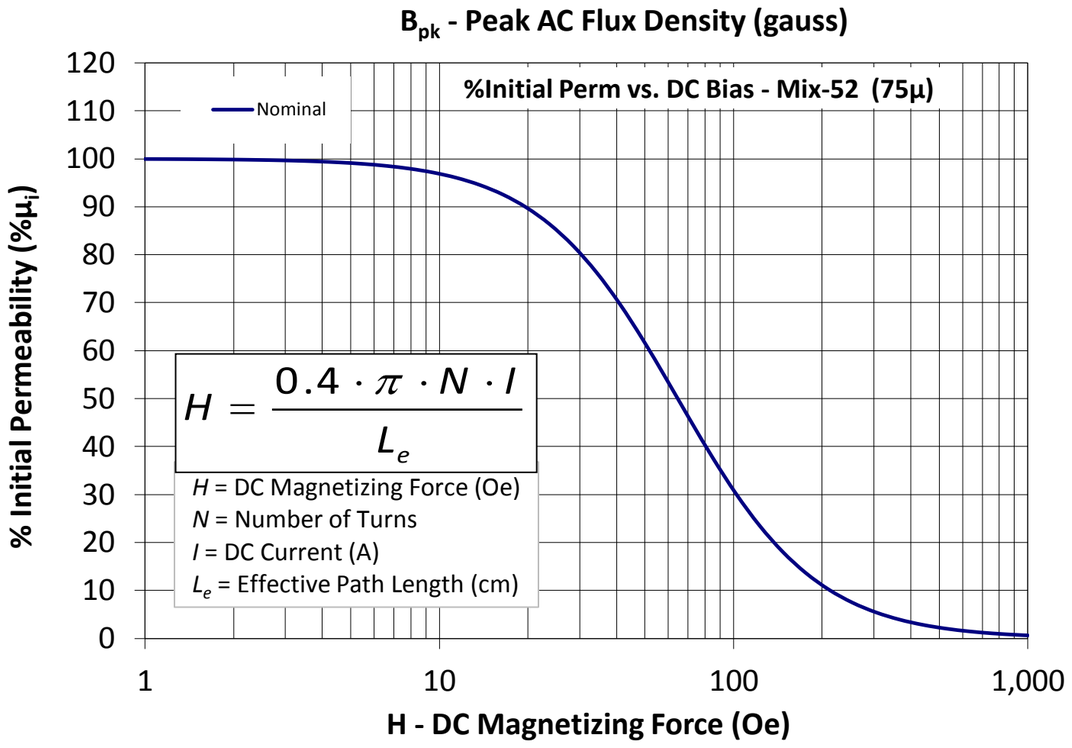
Part Number:	T14-52A

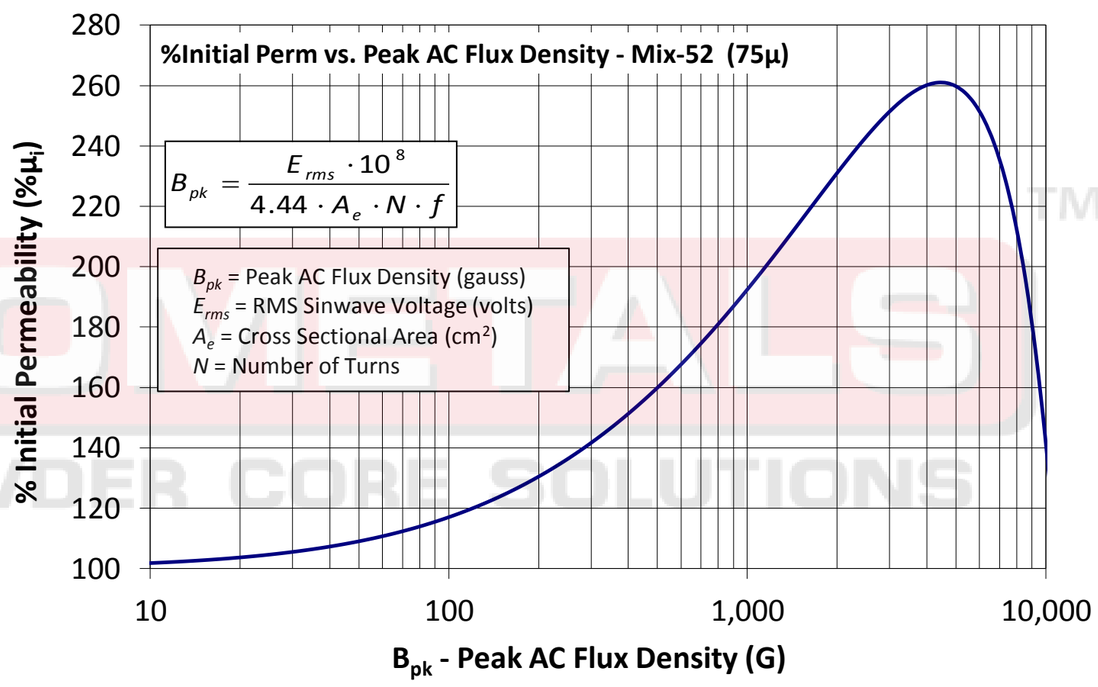
Revision 20190524 - Generated 2019-May-30

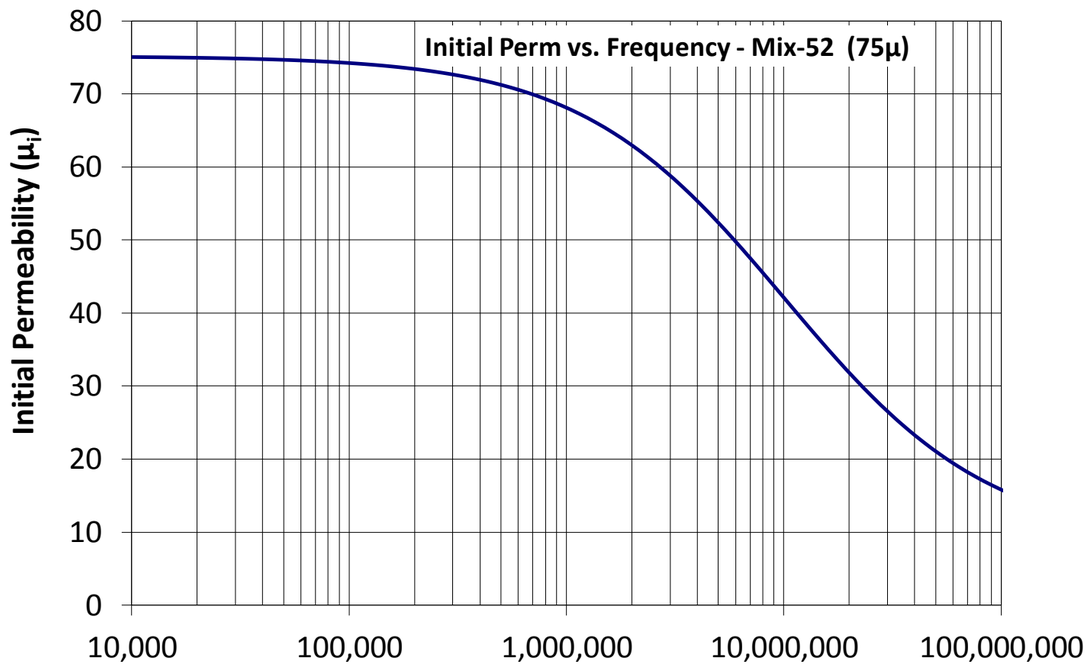


OD	(nom. - bare core)	3.43 mm	0.135 in
	(max. - after coating)	3.68 mm	0.145 in
ID	(nom. - bare core)	1.70 mm	0.067 in
	(min. - after coating)	1.45 mm	0.057 in
Ht	(nom. - bare core)	1.52 mm	0.060 in
	(max. - after coating)	1.78 mm	0.070 in
Mass	(approximate)	0.07 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0120 cm²	
	L_e - Eff. Mag. Path Length	0.810 cm	
	V_e - Eff. Core Volume	0.00980	
	WA - Min. Eff. Window Area	0.0165 cm²	
	sa - Surface Area	0.510 cm²	
	mlt - mean length per turn	0.652 cm	
Inductance	μ_i(reference)	75	
	A_L value (nominal)	11.5 nH/N²	
	Test Winding	N=30, #36 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.002 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=1.00E+09, b=1.10E+08, c=2.10E+06, d=6.90E-14		
	Bpk	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:	Parylene C	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	250,000 Pcs/Box	









Winding Table	**Wire Size**	AWG	30	32	34	36	38	40	42	44	#N/A	#N/A	#N/A
		mm	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A	#N/A
	Single Layer	Turns	11	14	18	23	30	38	47	60	#N/A	#N/A	#N/A
		Rdc(Ω)	24.3 m	49.1 m	100.4 m	204.0 m	423.3 m	852.7 m	1.7	3.4	#N/A	#N/A	#N/A
	Full Winding	Turns	11	16	25	39	60	93	145	224	#N/A	#N/A	#N/A
		Rdc(Ω)	24.3 m	56.1 m	139.5 m	346.0 m	846.6 m	2.1	5.2	12.7	#N/A	#N/A	#N/A

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