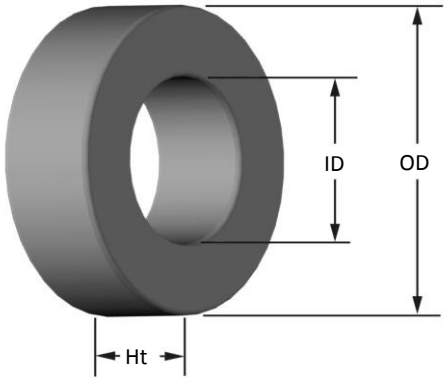
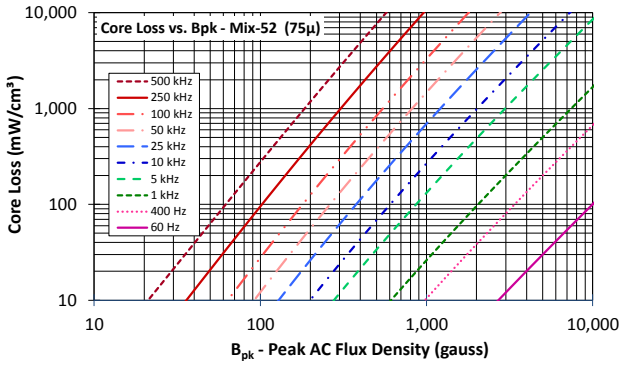
MICROMETALS™
POWDER CORE SOLUTIONS

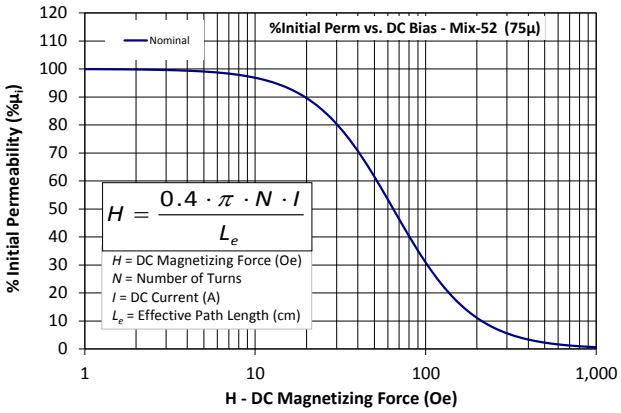
Part Number:	T16-52

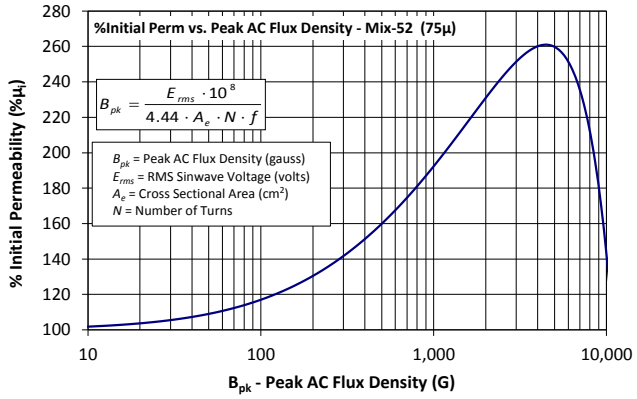
Revision 20190404 - Generated 2019-Apr-04

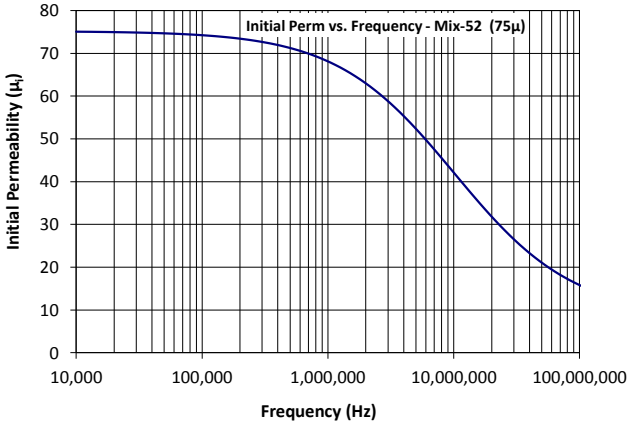


OD	(nom. - bare core)	4.06 mm	0.160 in
	(max. - after coating)	4.32 mm	0.170 in
ID	(nom. - bare core)	1.98 mm	0.078 in
	(min. - after coating)	1.73 mm	0.068 in
Ht	(nom. - bare core)	1.52 mm	0.060 in
	(max. - after coating)	1.78 mm	0.070 in
Mass	(approximate)	0.10 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0150 cm²	
	L_e - Eff. Mag. Path Length	0.930 cm	
	V_e - Eff. Core Volume	0.0141 cm³	
	WA - Min. Eff. Window Area	0.0234 cm²	
	sa - Surface Area	0.658 cm²	
	mlt - mean length per turn	0.701 cm	
Inductance	μ_i(reference)	75	
	A_L value (nominal)	13.5 nH/N²	
	Test Winding	N=40, #36 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.003 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	50,000 Pcs/Box	









Winding Table	**Wire Size**	AWG	28	30	32	34	36	38	40	42	44	#N/A	#N/A
		mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A
	Single Layer	Turns	10	13	17	22	28	36	45	57	72	#N/A	#N/A
		Rdc(Ω)	14.9 m	30.9 m	64.2 m	132.1 m	267.3 m	546.6 m	1.1	2.2	4.4	#N/A	#N/A
	Full Winding	Turns	10	15	23	36	56	86	133	206	319	#N/A	#N/A
		Rdc(Ω)	14.9 m	35.6 m	86.8 m	216.1 m	534.6 m	1.3	3.2	7.9	19.5	#N/A	#N/A

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