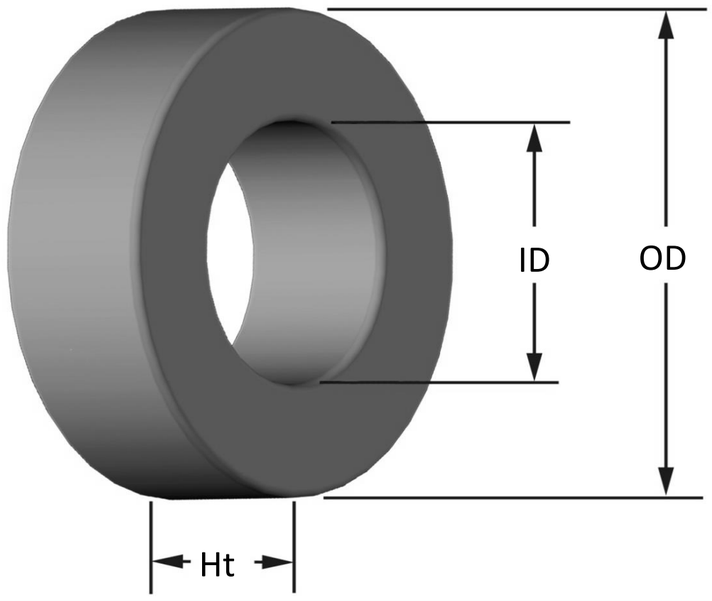
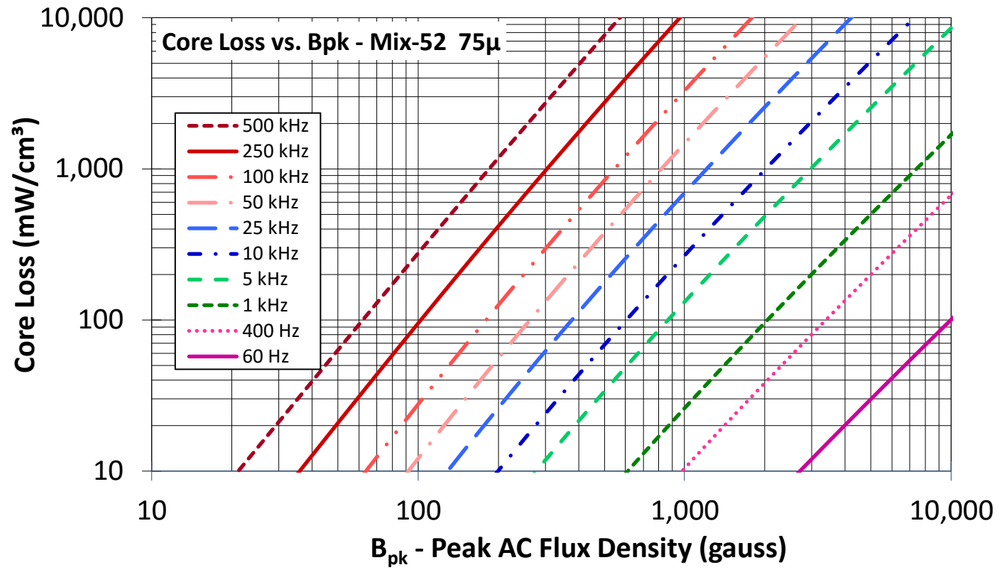
MICROMETALS
POWDER CORE SOLUTIONS

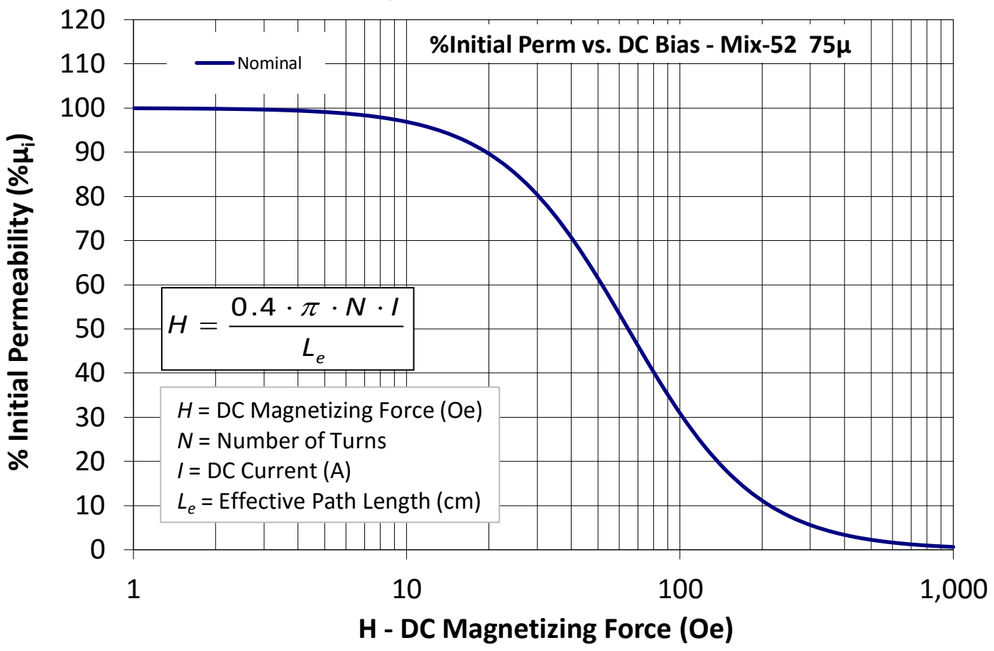
Part Number:	T249-52

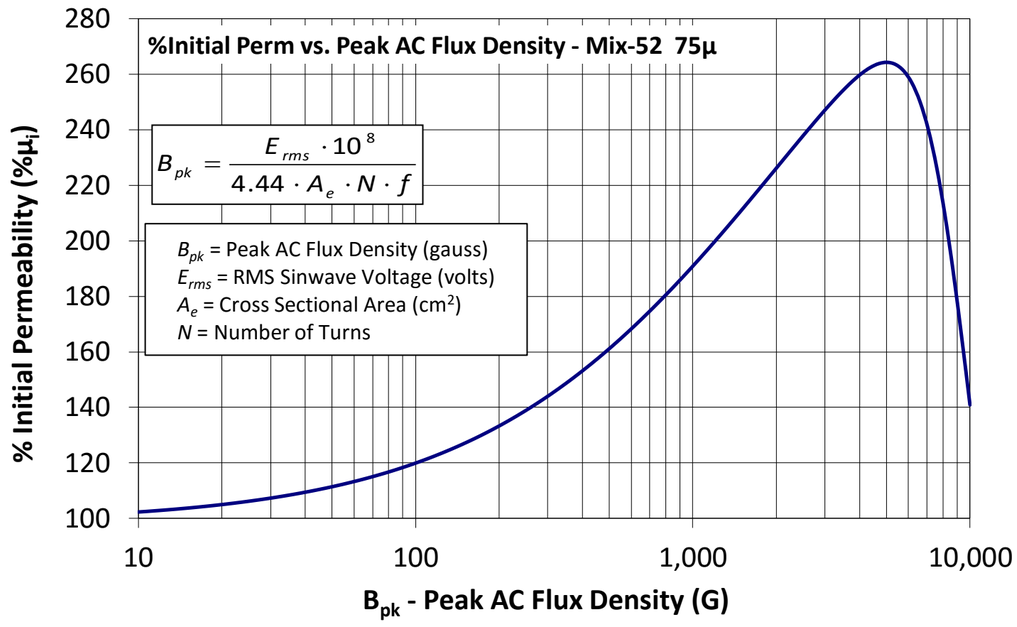
Revision 20160713 - Generated 2016-Aug-15

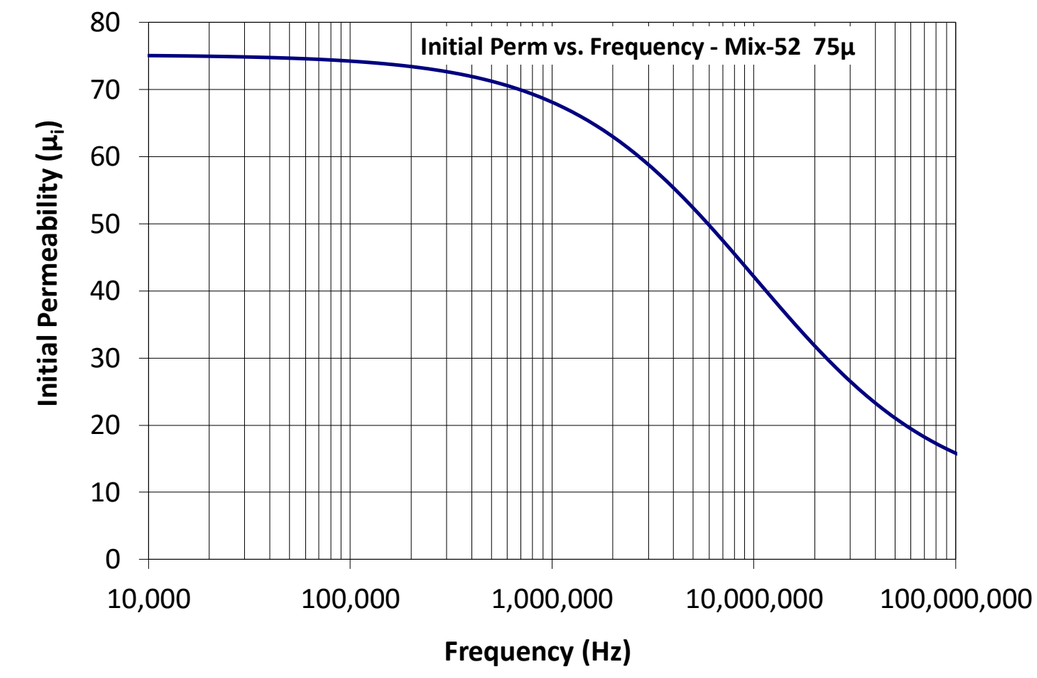


OD	(nom. - bare core)	63.50 mm	2.500 in
	(max. - after coating)	64.26 mm	2.530 in
ID	(nom. - bare core)	35.69 mm	1.405 in
	(min. - after coating)	34.93 mm	1.375 in
Ht	(nom. - bare core)	25.40 mm	1.000 in
	(max. - after coating)	26.16 mm	1.030 in
Mass	(approximate)	370 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	3.36 cm²	
	L_e - Eff. Mag. Path Length	15.6 cm	
	V_e - Eff. Core Volume	52.3 cm³	
	WA - Min. Eff. Window Area	9.58 cm²	
	sa - Surface Area	153 cm²	
	mlt - mean length per turn	9.91 cm	
Inductance	μ_i(reference)	75	
	A_L value (nominal)	203 nH/N²	
	Test Winding	N=100, #22 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	1.5 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:	Green/Blue Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	0.1 mA, 5 s	
	Package Quantity	45 Pcs/Box	









Winding Table												
Wire Size	AWG	8	10	12	14	16	18	20	22	24	26	28
	mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
Single Layer	Turns	27	34	43	54	68	85	107	134	167	209	260
	Rdc(Ω)	5.5 m	11.0 m	22.2 m	44.3 m	88.7 m	176.3 m	352.9 m	702.8 m	1.4	2.8	5.5
Full Winding	Turns	50	78	120	186	288	445	689	1,067	1,651	2,556	3,956
	Rdc(Ω)	10.2 m	25.3 m	61.9 m	152.5 m	375.5 m	922.8 m	2.3	5.6	13.8	33.9	83.5

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