

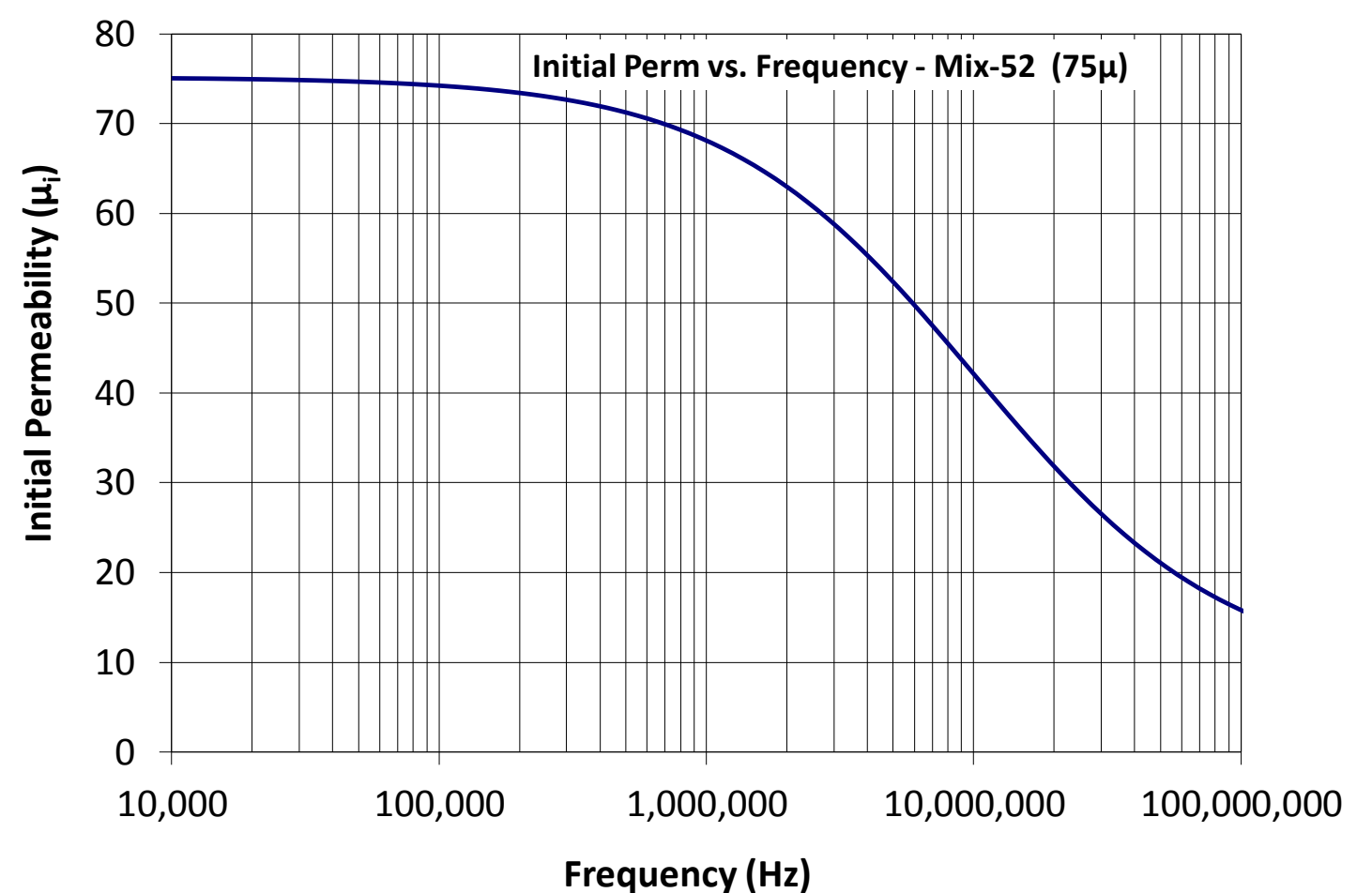
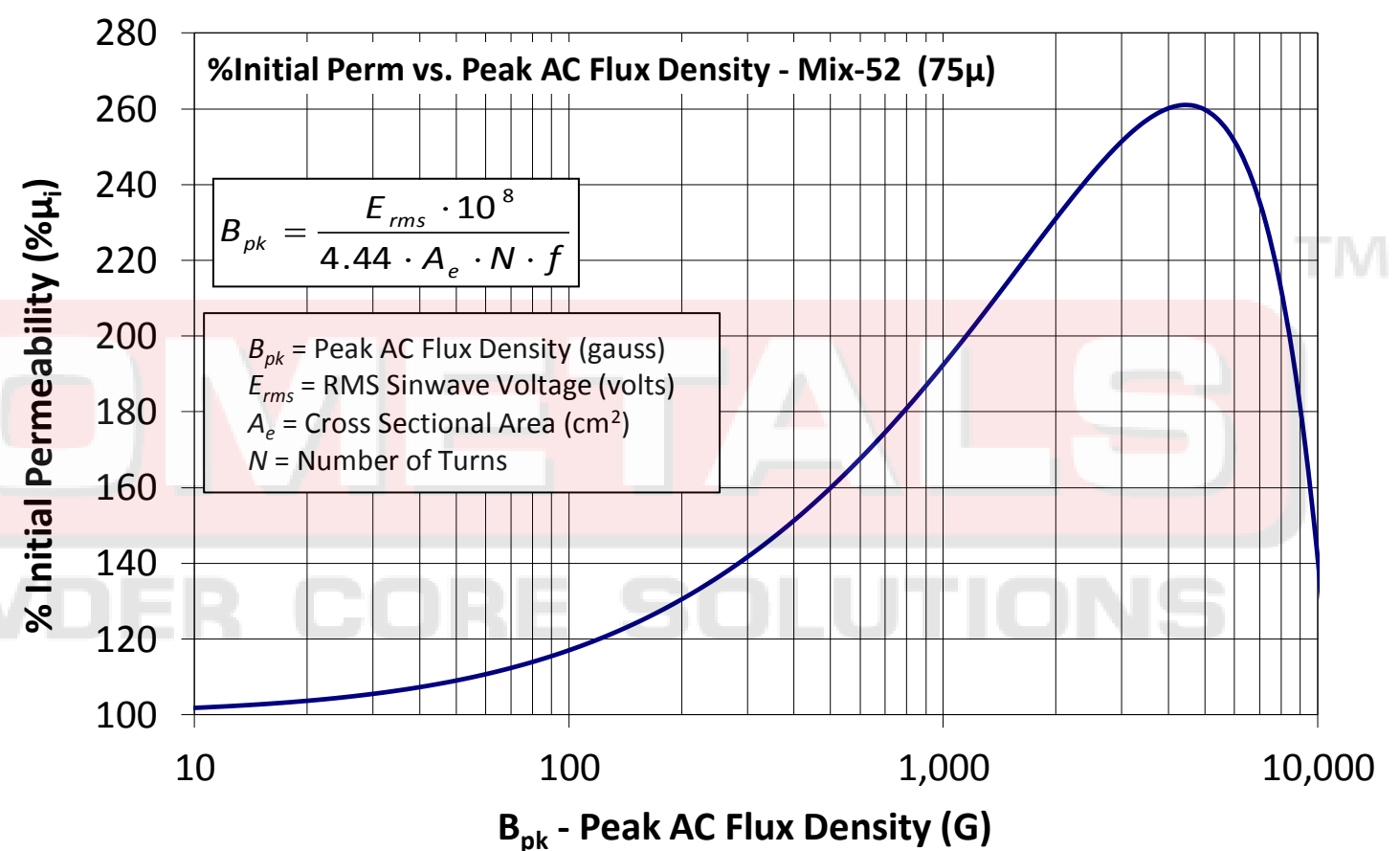
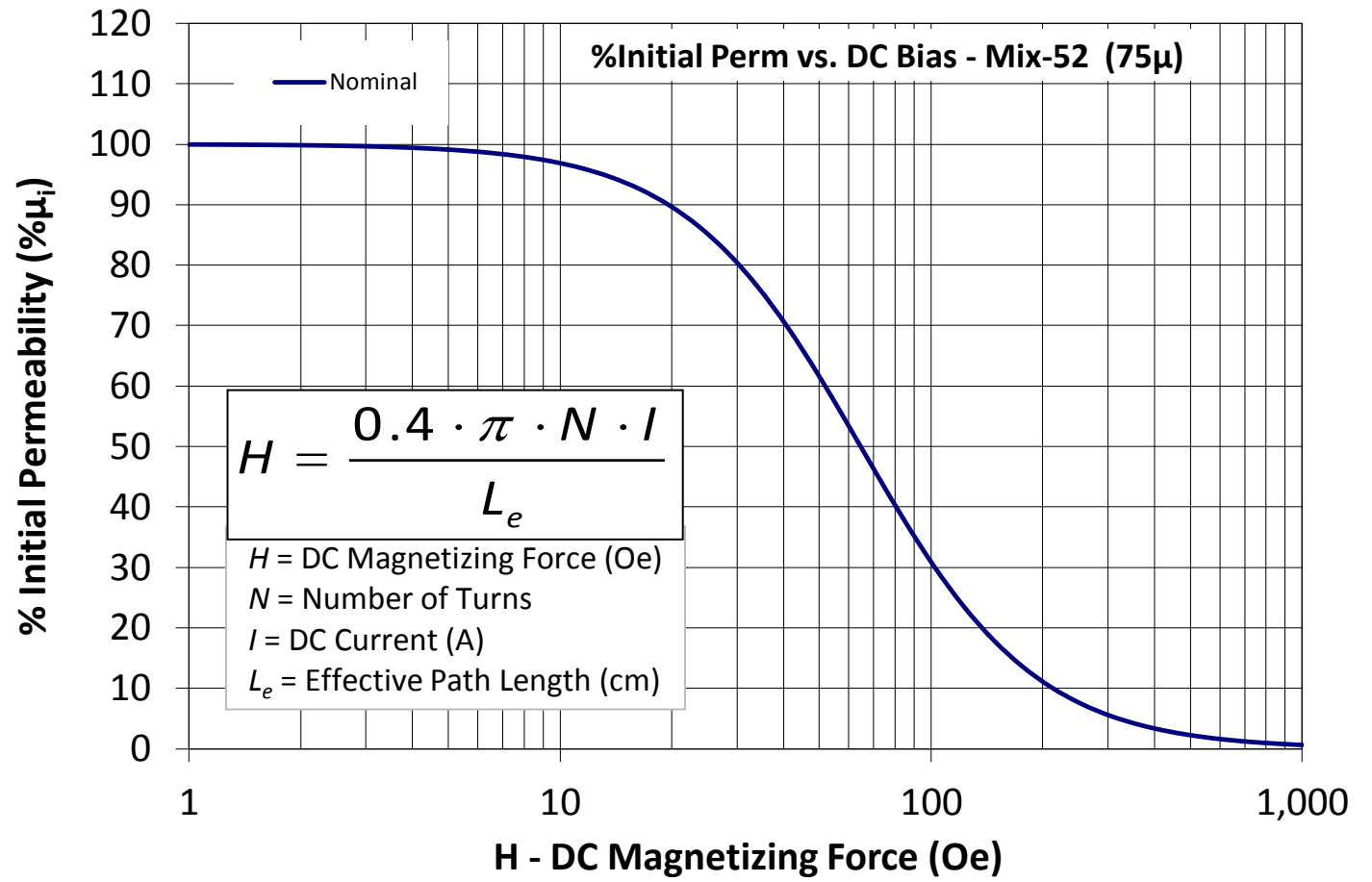
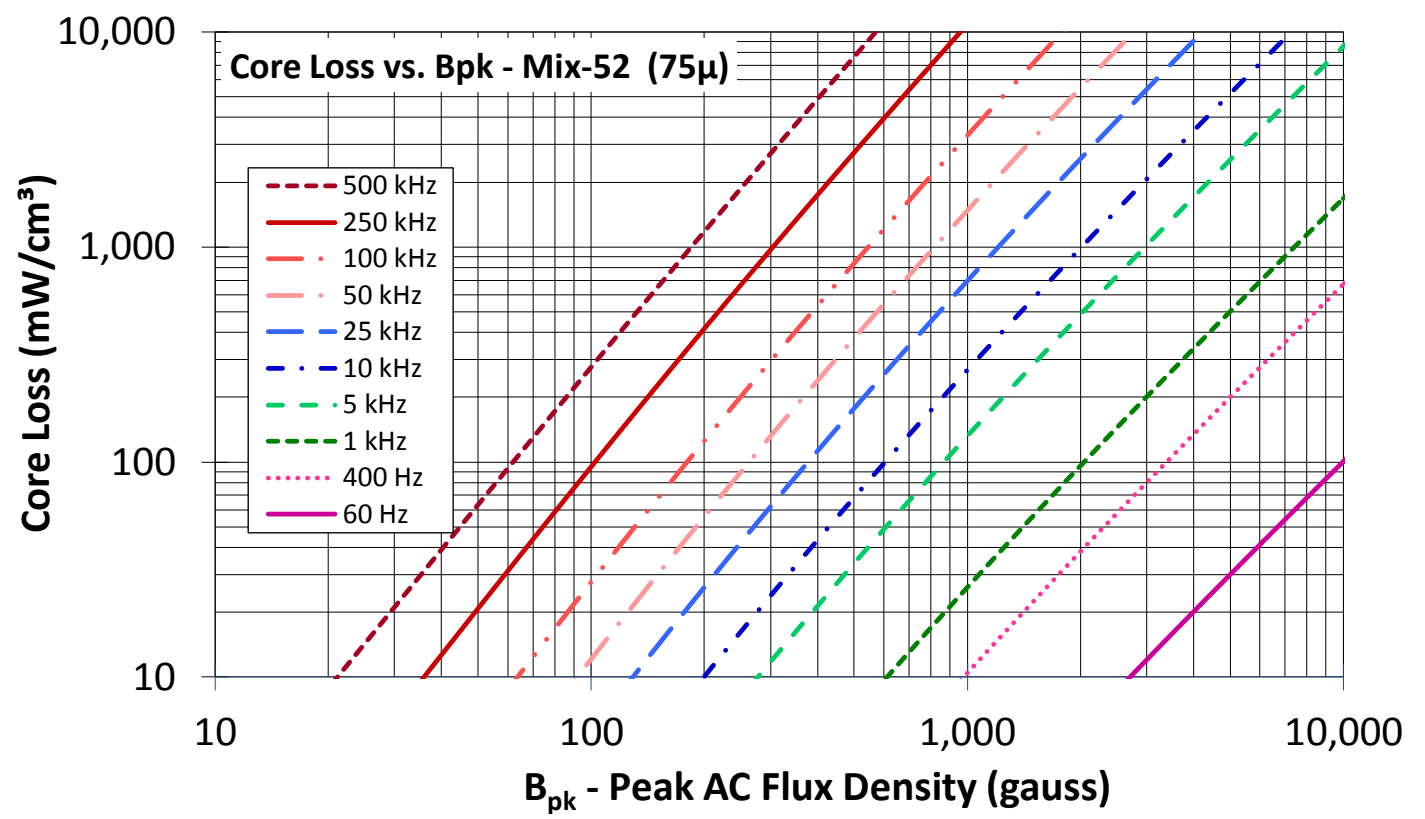


Part Number: **T90-52**

Revision 20190524 - Generated 2019-May-30



OD	(nom. - bare core) (max. - after coating)	22.86 mm 23.37 mm	0.900 in 0.920 in
ID	(nom. - bare core) (min. - after coating)	13.97 mm 13.46 mm	0.550 in 0.530 in
Ht	(nom. - bare core) (max. - after coating)	9.53 mm 10.16 mm	0.375 in 0.400 in
Mass	(approximate)	16 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.395 cm ²	
	L _e - Eff. Mag. Path Length	5.78 cm	
	V _e - Eff. Core Volume	2.28 cm ³	
	WA - Min. Eff. Window Area	1.42 cm ²	
	sa - Surface Area	21.0 cm ²	
	mlt - mean length per turn	3.70 cm	
Inductance	μ _i (reference)	75	
	A _L value (nominal)	64 nH/N ²	
	Test Winding	N=100, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.18 V	
A _L tolerance	±10%		
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	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/cm ³	
Core Loss (maximum)	67 mW/cm ³		
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	3 mA, 5 s	
	Package Quantity	968 Pcs/Box	



Winding Table	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
	Single Layer	Turns	11	15	19	25	31	39	50	63	79	99	123
		Rdc(Ω)	1.3 m	2.9 m	5.8 m	12.2 m	24.0 m	48.0 m	97.8 m	195.9 m	390.7 m	778.8 m	1.5
Full Winding	Turns	12	18	28	43	66	102	159	245	380	588	910	
	Rdc(Ω)	1.5 m	3.5 m	8.6 m	20.9 m	51.0 m	125.4 m	310.9 m	762.0 m	1.9	4.6	11.4	