MICROMETALS™
POWDER CORE SOLUTIONS

Part Number:	T12-15

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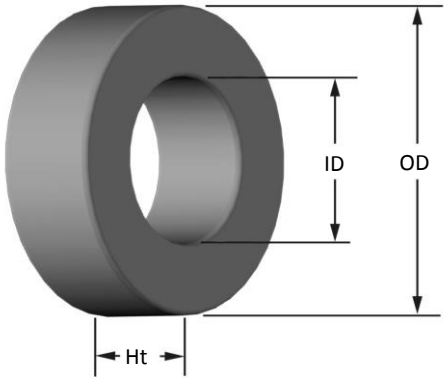
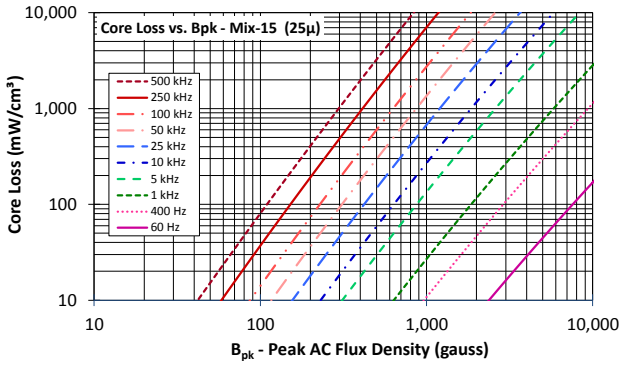
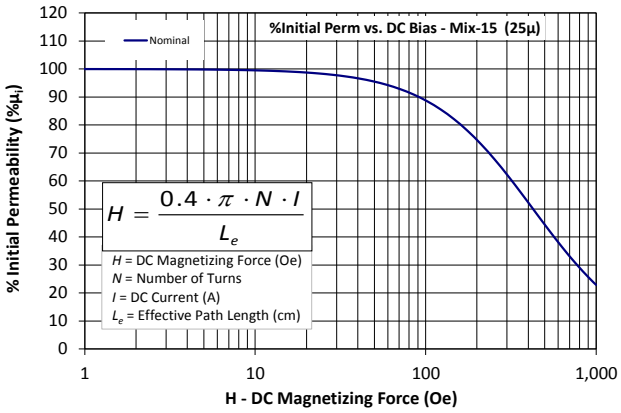
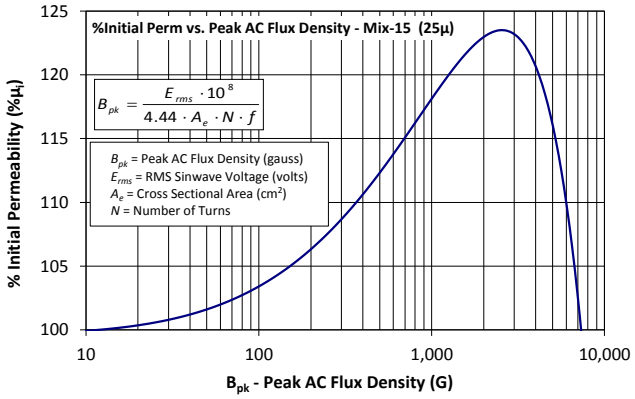
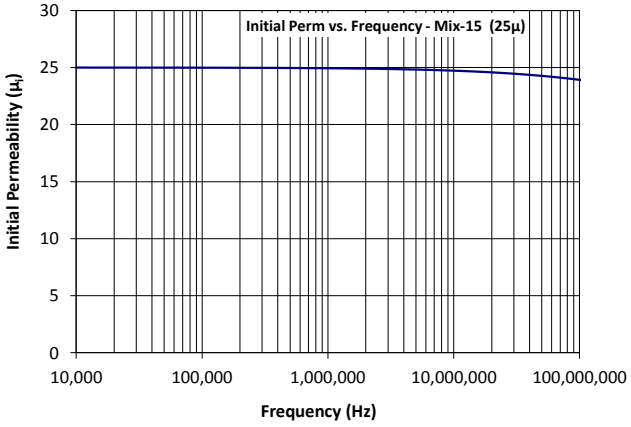


OD	(nom. - bare core)	3.18 mm	0.125 in
	(max. - after coating)	3.30 mm	0.130 in
ID	(nom. - bare core)	1.57 mm	0.062 in
	(min. - after coating)	1.45 mm	0.057 in
Ht	(nom. - bare core)	1.27 mm	0.050 in
	(max. - after coating)	1.40 mm	0.055 in
Mass	(approximate)	0.05 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0100 cm²	
	L_e - Eff. Mag. Path Length	0.750 cm	
	V_e - Eff. Core Volume	0.00770	
	WA - Min. Eff. Window Area	0.0165 cm²	
	sa - Surface Area	0.395 cm²	
	mlt - mean length per turn	0.537 cm	
Inductance	μ_i(reference)	25	
	A_L value (nominal)	5 nH/N²	
	Test Winding	N=25, #36 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	0.11 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=1.90E+09, b=2.00E+08, c=9.00E+05, d=5.00E-15		
	Bpk	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	32 mW/cm³	
	Core Loss (maximum)	36 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=1.78E-06, c=1.43, d=0.00		
	H_{DC}	200 Oe	
	Percent Initial Perm(nom.)	74.7%	
	Percent Initial Perm(min.)	69.4%	
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)	20.0 m	40.5 m	82.8 m	168.3 m	349.0 m	703.1 m	1.4	2.8	#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)	20.0 m	46.3 m	115.0 m	285.3 m	698.0 m	1.7	4.3	10.5	#N/A	#N/A	#N/A

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