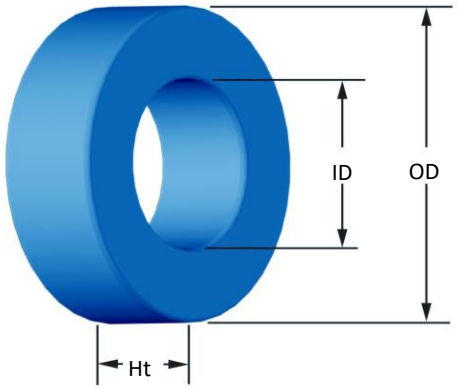
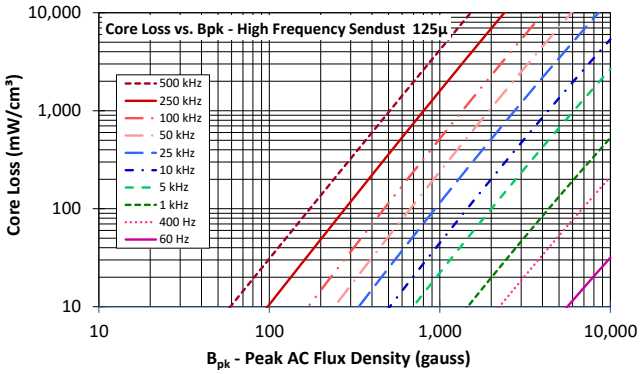
MICROMETALS
ALLOY POWDER CORES

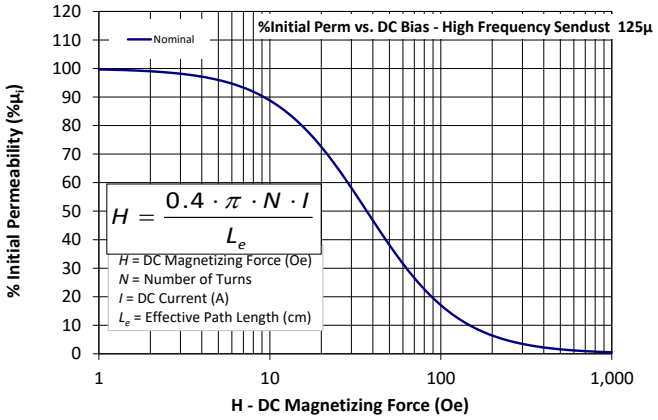
Part Number:	SH-225125-2

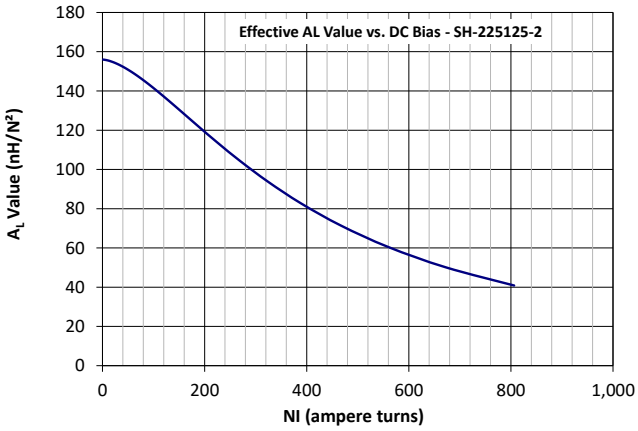
Revision 20170403 - Generated 2017-Apr-03

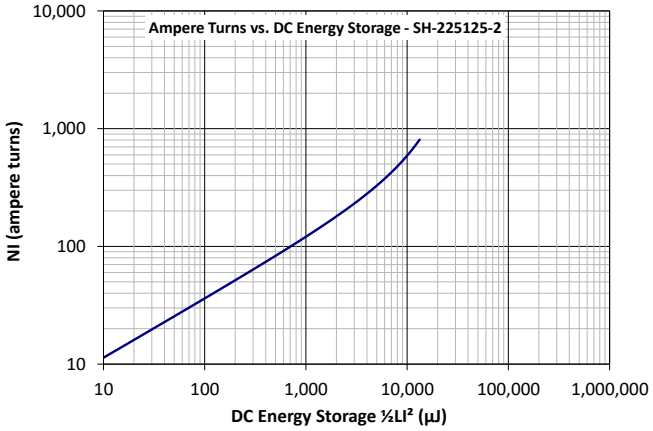


OD	(nom. - bare core)	57.15 mm	2.250 in
	(max. - after coating)	58.04 mm	2.285 in
ID	(nom. - bare core)	35.56 mm	1.400 in
	(min. - after coating)	34.75 mm	1.368 in
Ht	(nom. - bare core)	13.97 mm	0.550 in
	(max. - after coating)	14.86 mm	0.585 in
Mass	(approximate)	120 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	1.44 cm²	
	L_e - Eff. Mag. Path Length	14.296 cm	
	V_e - Eff. Core Volume	20.7 cm³	
	WA - Min. Eff. Window Area	9.48 cm²	
	sa - Surface Area	109 cm²	
	mlt - mean length per turn	7.04 cm	
Inductance	μ_i(reference)	125	
	A_L value (nominal)	156 nH/N²	
	Test Winding	N=80, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.51 V	
	AL tolerance	±8%	
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=7.985E+09, b=1.378E+09, c=4.041E+06, d=7.891E-15		
	B_{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	240 mW/cm³	
	Core Loss (maximum)	276 mW/cm³	
DC Saturation	$\%\mu_i \approx \frac{1}{a+b\cdot H^c}+d$		
	where H expressed in oersteds, and:		
	a=1.000E-02, b=3.265E-05, c=1.587, d=0.000		
	H_{DC}	40 Oe	
	Percent Initial Perm(nom.)	46.8%	
	Percent Initial Perm(min.)	39.7%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	80 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	106	133	166	207	259
		Rdc(Ω)	3.9 m	7.8 m	15.7 m	31.4 m	63.0 m	125.2 m	248.2 m	495.3 m	983.2 m	1.9	3.9
	Full Winding	Turns	50	77	119	184	285	441	682	1,056	1,635	2,530	3,916
		Rdc(Ω)	7.2 m	17.7 m	43.6 m	107.1 m	263.9 m	649.4 m	1.6	3.9	9.7	23.8	58.7

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