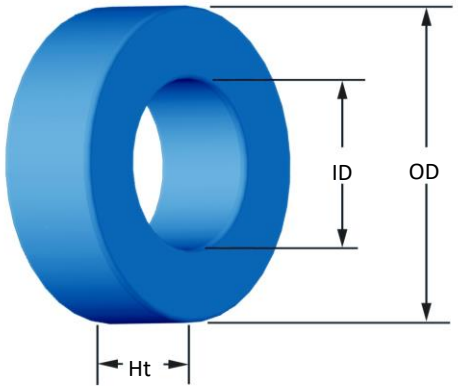
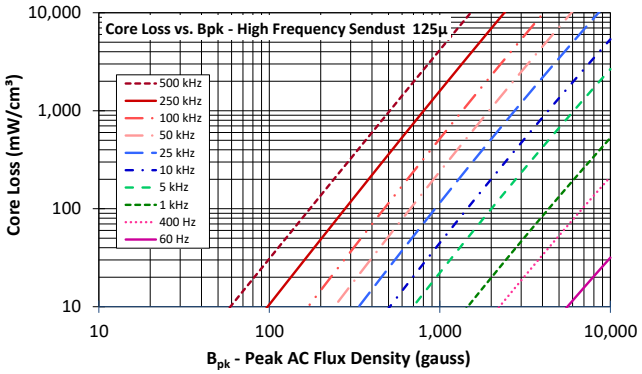
MICROMETALS
ALLOY POWDER CORES

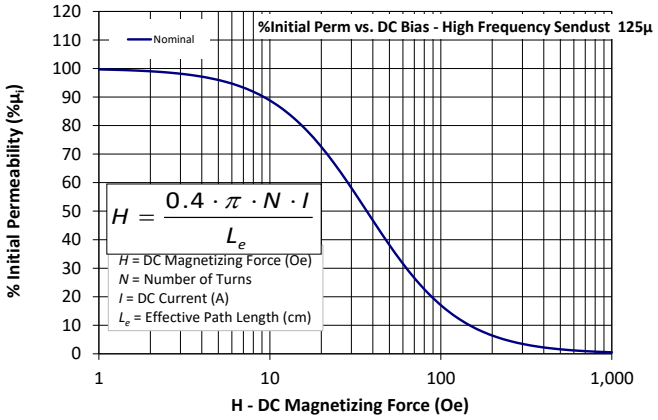
Part Number:	SH-080125-2

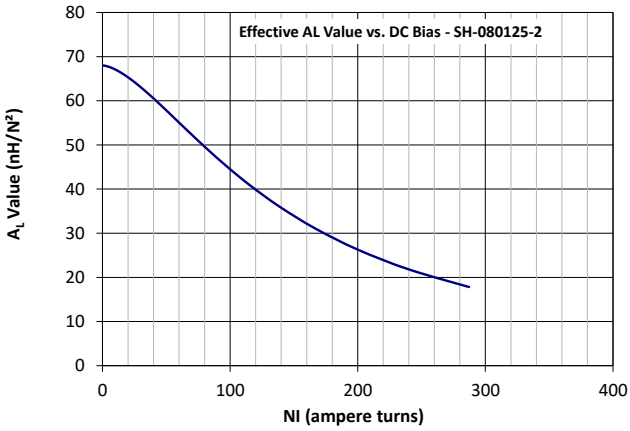
Revision 20170403 - Generated 2017-Apr-03

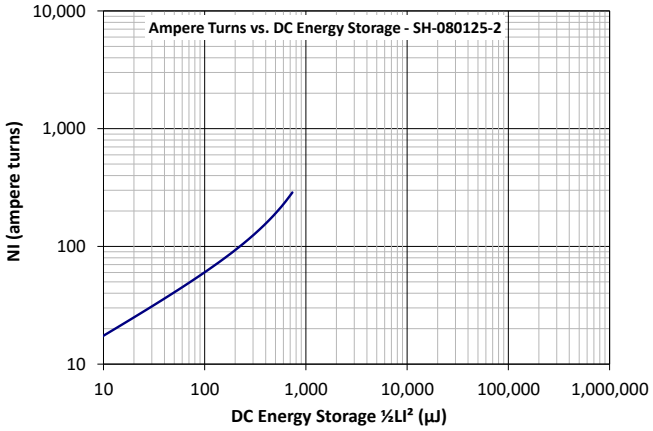


OD	(nom. - bare core)	20.32 mm	0.800 in
	(max. - after coating)	21.08 mm	0.830 in
ID	(nom. - bare core)	12.70 mm	0.500 in
	(min. - after coating)	12.07 mm	0.475 in
Ht	(nom. - bare core)	6.35 mm	0.250 in
	(max. - after coating)	7.11 mm	0.280 in
Mass	(approximate)	6.6 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.226 cm²	
	L_e - Eff. Mag. Path Length	5.09 cm	
	V_e - Eff. Core Volume	1.15 cm³	
	WA - Min. Eff. Window Area	1.14 cm²	
	sa - Surface Area	15.5 cm²	
	mlt - mean length per turn	2.93 cm	
Inductance	μ_i(reference)	125	
	A_L value (nominal)	68 nH/N²	
	Test Winding	N=90, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.090 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	$\%\mu_i \cdot \frac{1}{a+b\cdot H^c}+d$		
	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	1,800 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	10	13	17	22	28	35	44	56	70	88	110
		Rdc(Ω)	1.0 m	2.0 m	4.1 m	8.5 m	17.1 m	34.1 m	68.1 m	137.9 m	274.2 m	548.2 m	1.1
	Full Winding	Turns	9	14	22	34	53	82	127	197	305	472	731
		Rdc(Ω)	0.9 m	2.1 m	5.3 m	13.1 m	32.4 m	79.8 m	196.7 m	485.2 m	1.2	2.9	7.2

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