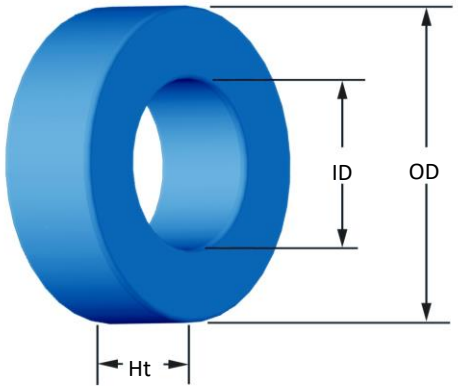
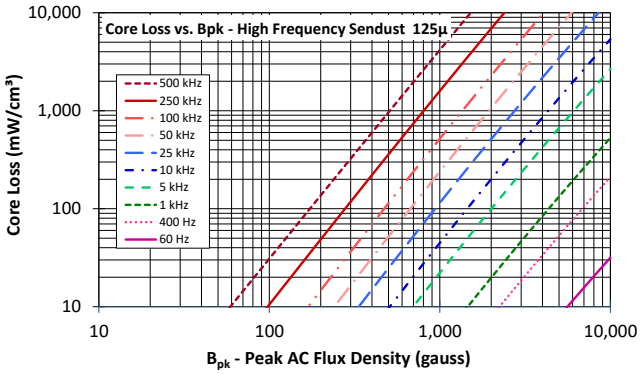
MICROMETALS
ALLOY POWDER CORES

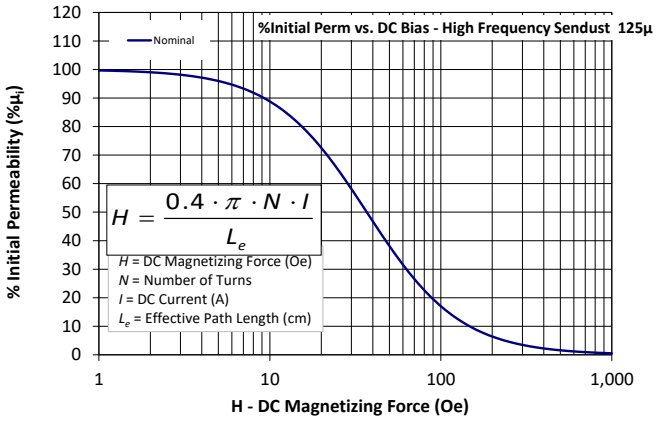
Part Number:	SH-130125-2

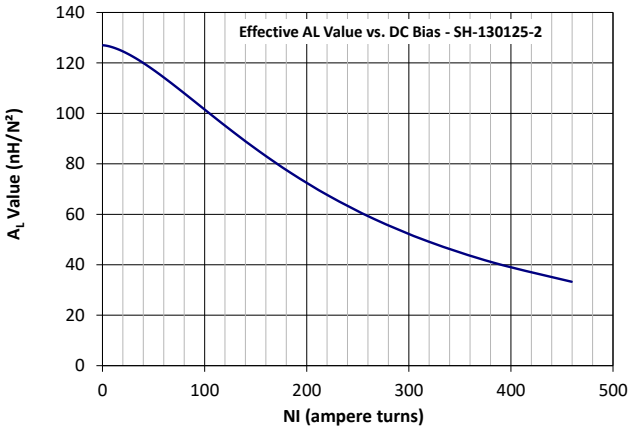
Revision 20170403 - Generated 2017-Apr-03

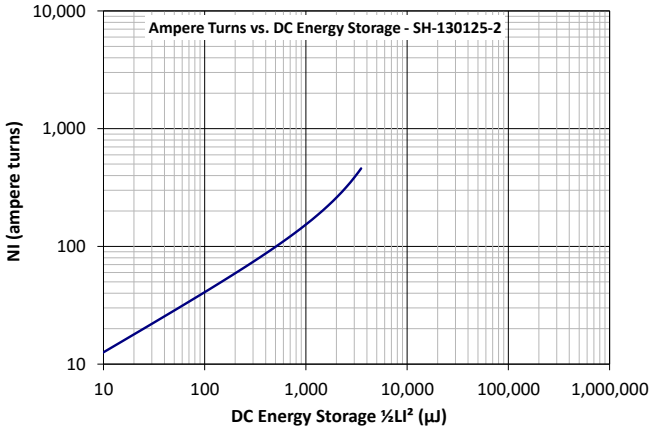


OD	(nom. - bare core)	33.02 mm	1.300 in
	(max. - after coating)	33.83 mm	1.332 in
ID	(nom. - bare core)	19.94 mm	0.785 in
	(min. - after coating)	19.30 mm	0.760 in
Ht	(nom. - bare core)	10.67 mm	0.420 in
	(max. - after coating)	11.61 mm	0.457 in
Mass	(approximate)	31 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.672 cm²	
	L_e - Eff. Mag. Path Length	8.15 cm	
	V_e - Eff. Core Volume	5.48 cm³	
	WA - Min. Eff. Window Area	2.93 cm²	
	sa - Surface Area	40.1 cm²	
	mlt - mean length per turn	4.74 cm	
Inductance	μ_i(reference)	125	
	A_L value (nominal)	127 nH/N²	
	Test Winding	N=70, #22 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.21 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	512 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	14	18	22	29	36	46	58	73	91	114	142
		Rdc(Ω)	1.4 m	2.8 m	5.4 m	11.4 m	22.4 m	45.6 m	91.5 m	183.1 m	363.0 m	723.2 m	1.4
	Full Winding	Turns	15	24	37	57	88	136	211	326	504	780	1,208
		Rdc(Ω)	1.5 m	3.7 m	9.1 m	22.3 m	54.9 m	134.9 m	332.8 m	817.6 m	2.0	4.9	12.2

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