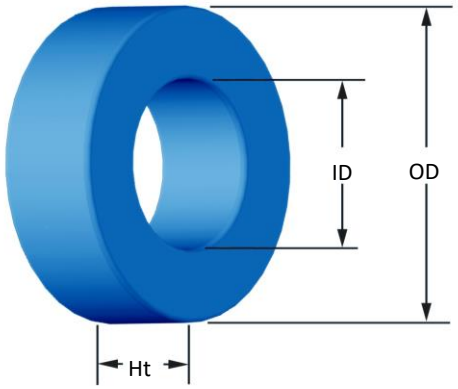
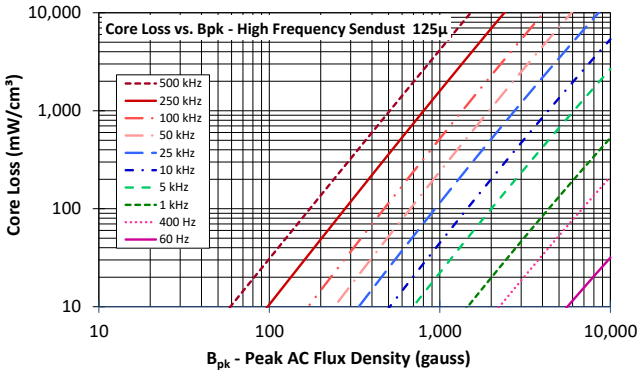
MICROMETALS
ALLOY POWDER CORES

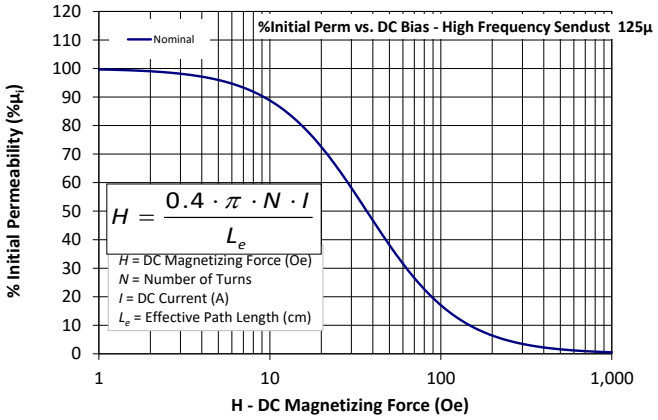
Part Number:	SH-141125-2

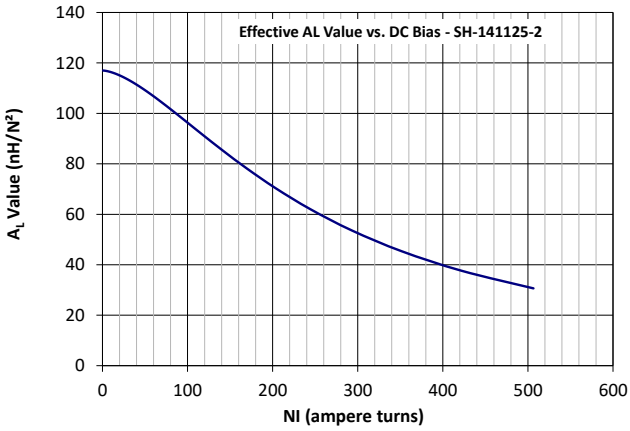
Revision 20170403 - Generated 2017-Apr-03

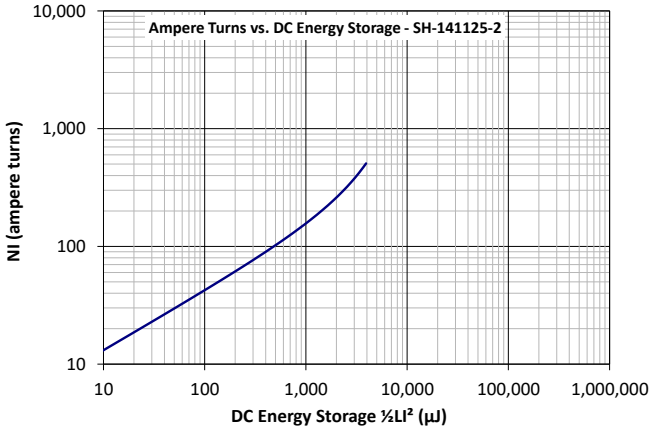


OD	(nom. - bare core)	35.81 mm	1.410 in
	(max. - after coating)	36.63 mm	1.442 in
ID	(nom. - bare core)	22.35 mm	0.880 in
	(min. - after coating)	21.54 mm	0.848 in
Ht	(nom. - bare core)	10.46 mm	0.412 in
	(max. - after coating)	11.28 mm	0.444 in
Mass	(approximate)	35 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.678 cm²	
	L_e - Eff. Mag. Path Length	8.98 cm	
	V_e - Eff. Core Volume	6.09 cm³	
	WA - Min. Eff. Window Area	3.64 cm²	
	sa - Surface Area	45.6 cm²	
	mlt - mean length per turn	4.84 cm	
Inductance	μ_i(reference)	125	
	A_L value (nominal)	117 nH/N²	
	Test Winding	N=80, #22 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.24 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	343 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	15	20	25	32	41	52	65	81	102	128	159
		Rdc(Ω)	1.5 m	3.2 m	6.3 m	12.8 m	26.1 m	52.7 m	104.7 m	207.5 m	415.6 m	829.5 m	1.6
	Full Winding	Turns	19	30	46	71	109	169	262	406	628	972	1,505
		Rdc(Ω)	1.9 m	4.8 m	11.6 m	28.4 m	69.4 m	171.2 m	422.1 m	1.0	2.6	6.3	15.5

Micrometals Alloy Powder Cores, A Division of Micrometals, Inc. - 5615 E. La Palma Ave., Anaheim, California 92807 USA
Ph: +1-714-970-9400, Toll Free in USA: +1-800-356-5977, Asia Pacific Sales: +852 3106 3736
www.MicrometalsAPC.com