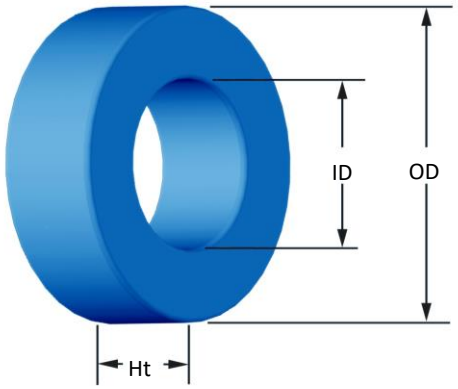
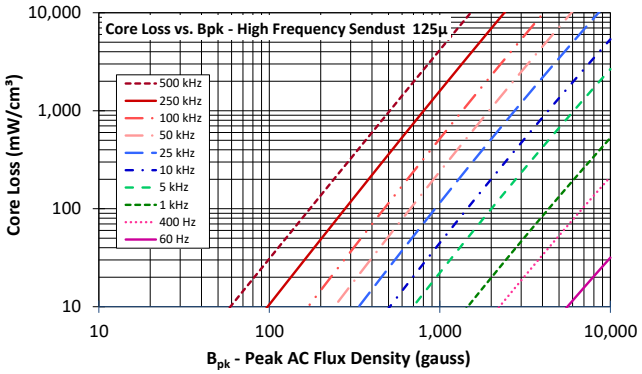
MICROMETALS
ALLOY POWDER CORES

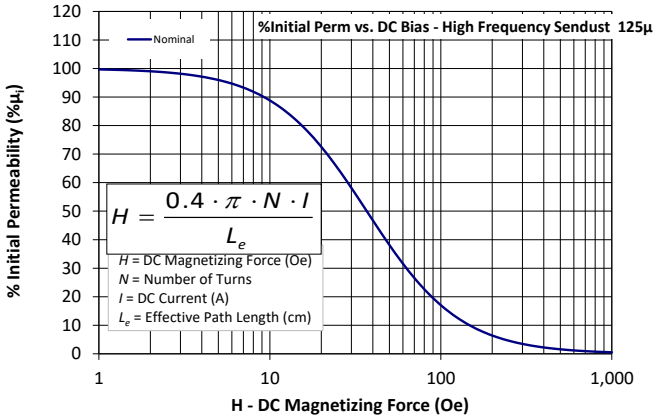
Part Number:	SH-027125-8

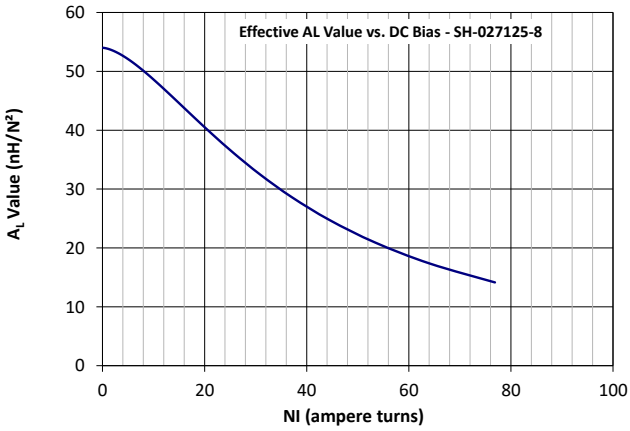
Revision 20170403 - Generated 2017-Apr-03

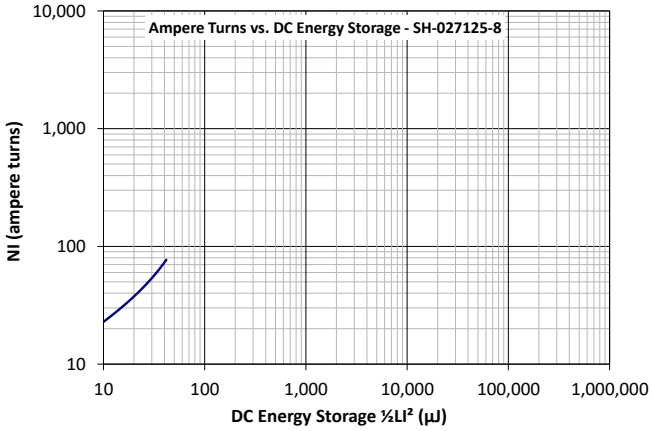


OD	(nom. - bare core)	6.60 mm	0.260 in
	(max. - after coating)	7.24 mm	0.285 in
ID	(nom. - bare core)	2.67 mm	0.105 in
	(min. - after coating)	2.29 mm	0.090 in
Ht	(nom. - bare core)	2.54 mm	0.100 in
	(max. - after coating)	3.18 mm	0.125 in
Mass	(approximate)	0.37 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0467 cm²	
	L_e - Eff. Mag. Path Length	1.36 cm	
	V_e - Eff. Core Volume	0.0640 cm³	
	WA - Min. Eff. Window Area	0.0412 cm²	
	sa - Surface Area	1.83 cm²	
	mlt - mean length per turn	1.25 cm	
Inductance	μ_i(reference)	125	
	A_L value (nominal)	54 nH/N²	
	Test Winding	N=35, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.007 V	
	AL tolerance	±12%	
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:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	21,600 Pcs/Box	









Winding Table	**Wire Size**	AWG	26	28	30	32	34	36	38	40	42	44	-
		mm	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-
	Single Layer	Turns	11	14	19	24	30	38	49	61	77	96	-
		Rdc(Ω)	18.3 m	37.1 m	80.1 m	160.9 m	319.9 m	644.5 m	1.3	2.6	5.3	10.4	-
	Full Winding	Turns	11	17	26	41	63	98	151	234	362	560	-
		Rdc(Ω)	18.3 m	45.1 m	109.6 m	274.9 m	671.8 m	1.7	4.1	10.0	24.7	60.8	-

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