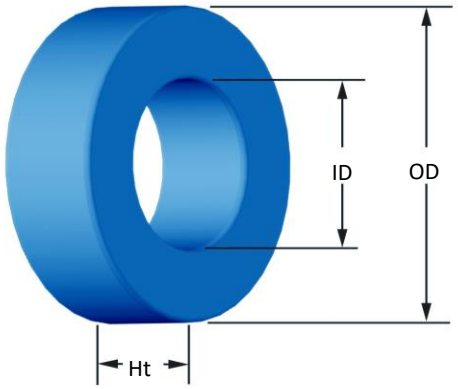
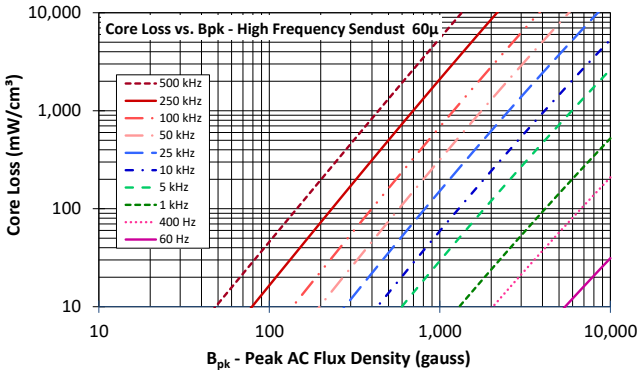
MICROMETALS
ALLOY POWDER CORES

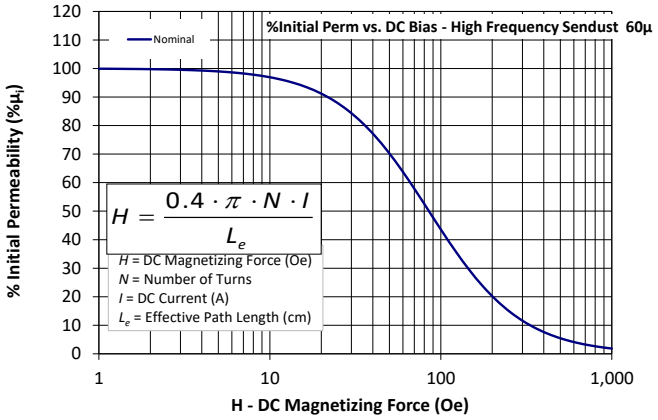
Part Number:	SH-185060-2

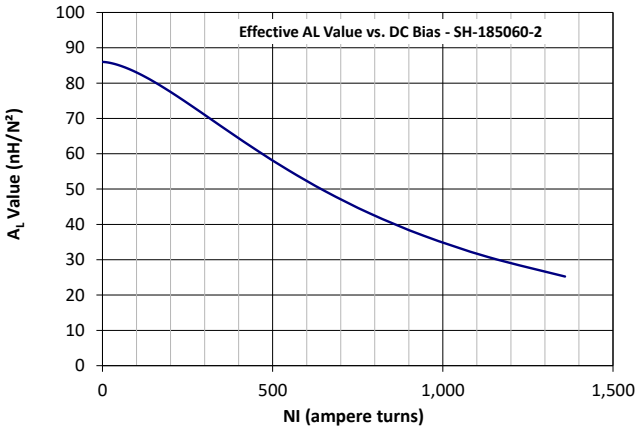
Revision 20170403 - Generated 2017-Apr-03

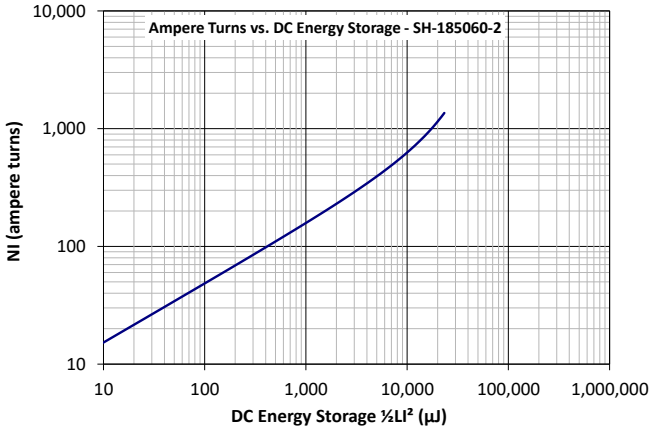


OD	(nom. - bare core)	46.74 mm	1.840 in
	(max. - after coating)	47.63 mm	1.875 in
ID	(nom. - bare core)	28.70 mm	1.130 in
	(min. - after coating)	27.89 mm	1.098 in
Ht	(nom. - bare core)	15.24 mm	0.600 in
	(max. - after coating)	16.13 mm	0.635 in
Mass	(approximate)	87 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	1.34 cm²	
	L_e - Eff. Mag. Path Length	11.62 cm	
	V_e - Eff. Core Volume	15.6 cm³	
	WA - Min. Eff. Window Area	6.11 cm²	
	sa - Surface Area	79.6 cm²	
	mlt - mean length per turn	6.59 cm	
Inductance	μ_i(reference)	60	
	A_L value (nominal)	86 nH/N²	
	Test Winding	N=80, #20 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.48 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=1.000E+06, b=8.801E+08, c=5.421E+06, d=1.033E-14		
	B_{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	317 mW/cm³	
	Core Loss (maximum)	365 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=7.724E-06, c=1.612, d=0.000		
	H_{DC}	100 Oe	
	Percent Initial Perm(nom.)	43.6%	
	Percent Initial Perm(min.)	36.5%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	125 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	21	27	34	43	54	68	85	106	133	166	207
		Rdc(Ω)	2.8 m	5.8 m	11.7 m	23.5 m	46.8 m	93.8 m	186.5 m	369.9 m	738.1 m	1.5	2.9
	Full Winding	Turns	32	49	77	119	184	284	440	680	1,053	1,630	2,523
		Rdc(Ω)	4.3 m	10.6 m	26.4 m	64.9 m	159.6 m	391.8 m	965.4 m	2.4	5.8	14.4	35.4

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