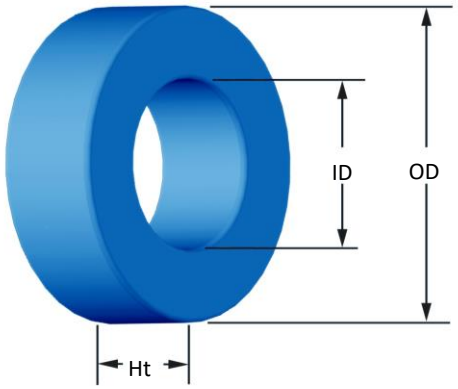
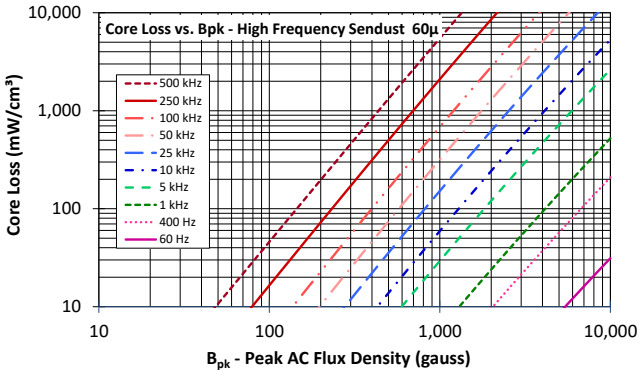
MICROMETALS
ALLOY POWDER CORES

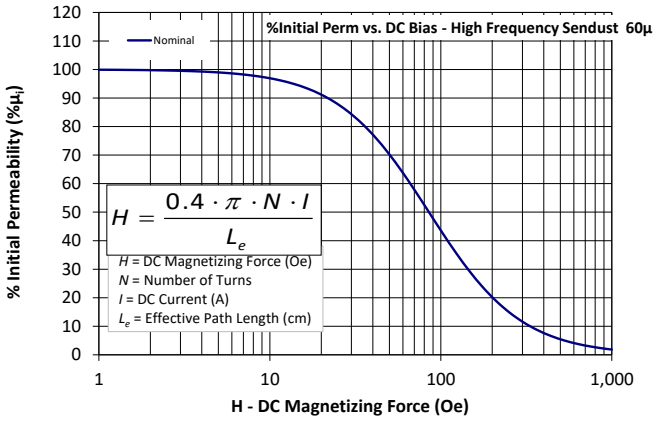
Part Number:	SH-018060-8

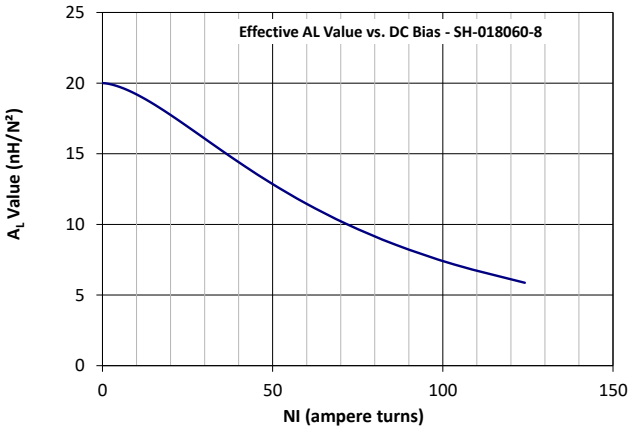
Revision 20170403 - Generated 2017-Apr-03

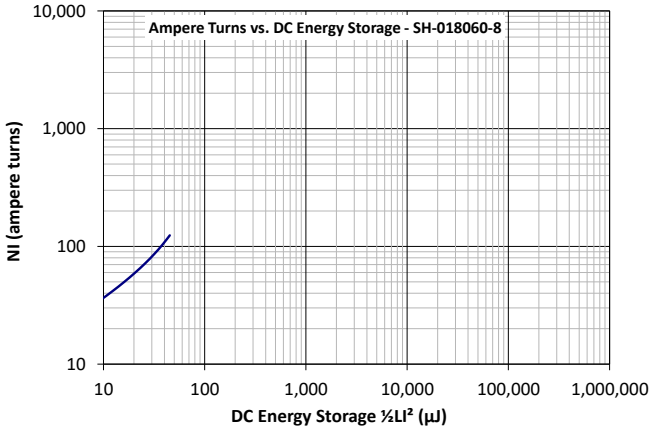


OD	(nom. - bare core)	4.65 mm	0.183 in
	(max. - after coating)	5.21 mm	0.205 in
ID	(nom. - bare core)	2.36 mm	0.093 in
	(min. - after coating)	1.93 mm	0.076 in
Ht	(nom. - bare core)	2.54 mm	0.100 in
	(max. - after coating)	3.30 mm	0.130 in
Mass	(approximate)	0.17 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0285 cm²	
	L_e - Eff. Mag. Path Length	1.06 cm	
	V_e - Eff. Core Volume	0.0302 cm³	
	WA - Min. Eff. Window Area	0.0293 cm²	
	sa - Surface Area	1.15 cm²	
	mlt - mean length per turn	1.08 cm	
Inductance	μ_i(reference)	60	
	A_L value (nominal)	20 nH/N²	
	Test Winding	N=30, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.004 V	
	AL tolerance	±15%	
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:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	27,000 Pcs/Box	









Winding Table	**Wire Size**	AWG	28	30	32	34	36	38	40	42	44	-	-
		mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-	-
	Single Layer	Turns	12	15	20	25	32	40	51	64	81	-	-
		Rdc(Ω)	27.7 m	55.1 m	116.8 m	232.1 m	472.6 m	939.5 m	1.9	3.8	7.7	-	-
	Full Winding	Turns	12	19	29	45	69	107	166	257	398	-	-
		Rdc(Ω)	27.7 m	69.8 m	169.3 m	417.9 m	1.0	2.5	6.2	15.3	37.6	-	-

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