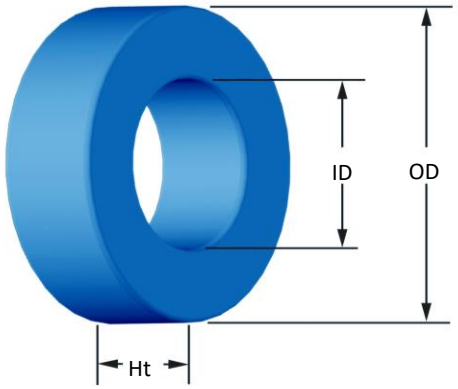
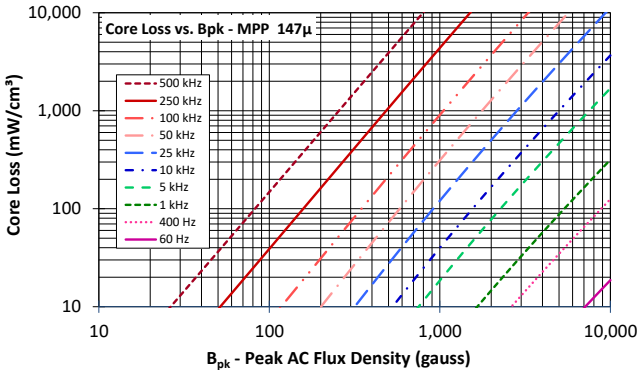
MICROMETALS
ALLOY POWDER CORES

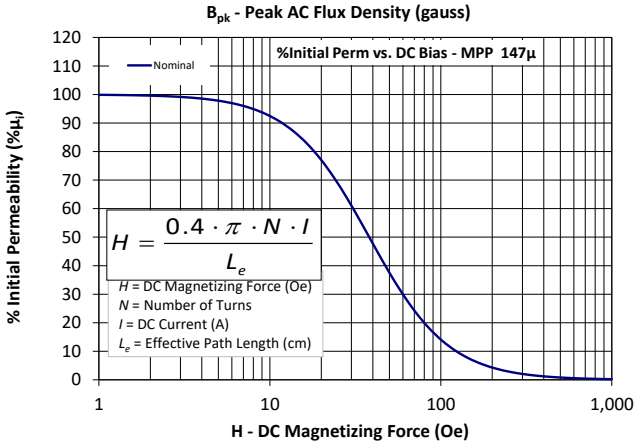
Part Number:	MP-350147-2

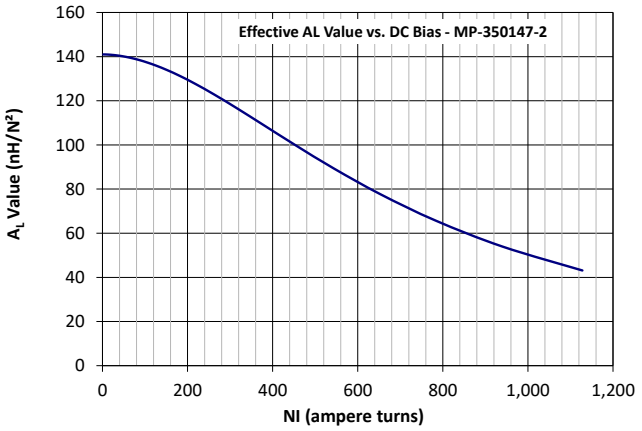
Revision 20170623 - Generated 2017-Jun-23

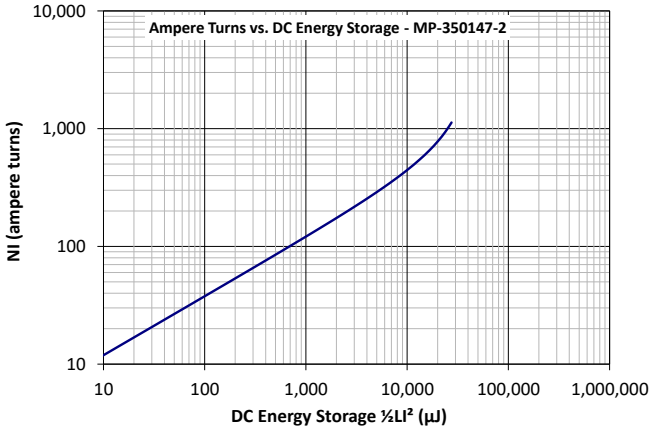


OD	(nom. - bare core)	88.85 mm	3.498 in
	(max. - after coating)	90.00 mm	3.543 in
ID	(nom. - bare core)	66.01 mm	2.599 in
	(min. - after coating)	64.74 mm	2.549 in
Ht	(nom. - bare core)	15.93 mm	0.627 in
	(max. - after coating)	17.20 mm	0.677 in
Mass	(approximate)	340 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	1.83 cm²	
	L_e - Eff. Mag. Path Length	24 cm	
	V_e - Eff. Core Volume	43.9 cm³	
	WA - Min. Eff. Window Area	32.9 cm²	
	sa - Surface Area	251 cm²	
	mlt - mean length per turn	9.20 cm	
Inductance	μ_i(reference)	147	
	A_L value (nominal)	141 nH/N²	
	Test Winding	N=100, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.81 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=3.167E+10, b=1.206E+09, c=9.656E+06, d=5.636E-14		
	B_{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	312 mW/cm³	
	Core Loss (maximum)	359 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=1.089E-05, c=1.874, d=0.000		
	H_{DC}	40 Oe	
	Percent Initial Perm(nom.)	47.8%	
	Percent Initial Perm(min.)	39.4%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	45 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	52	65	82	103	129	161	201	250	312	389	485
	Rdc(Ω)	9.8 m	19.6 m	39.2 m	78.4 m	156.2 m	310.0 m	615.5 m	1.2	2.4	4.8	9.5
Full Winding	Turns	172	267	413	639	989	1,530	2,369	3,666	5,674	8,782	13,592
	Rdc(Ω)	32.5 m	80.4 m	197.7 m	486.4 m	1.2	2.9	7.3	17.9	43.9	108.2	266.3

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