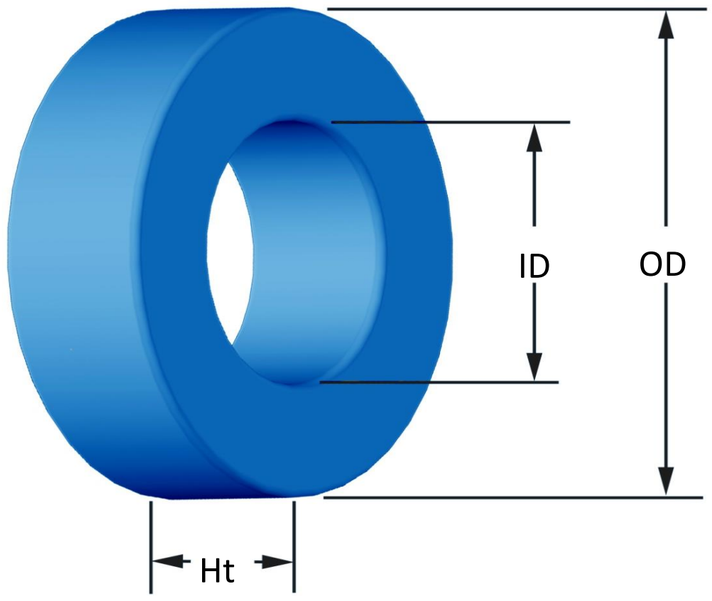
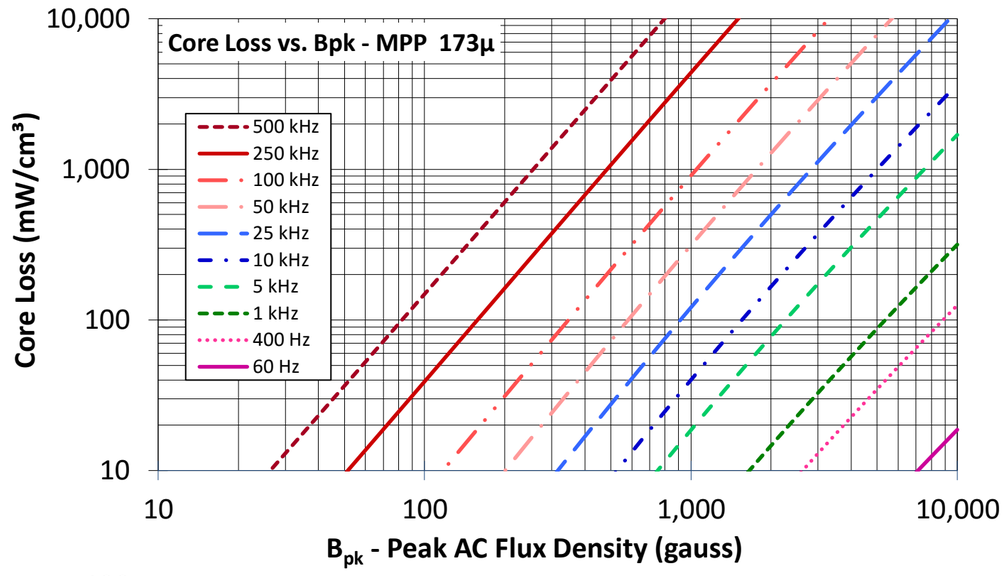
MICROMETALS
ALLOY POWDER CORES

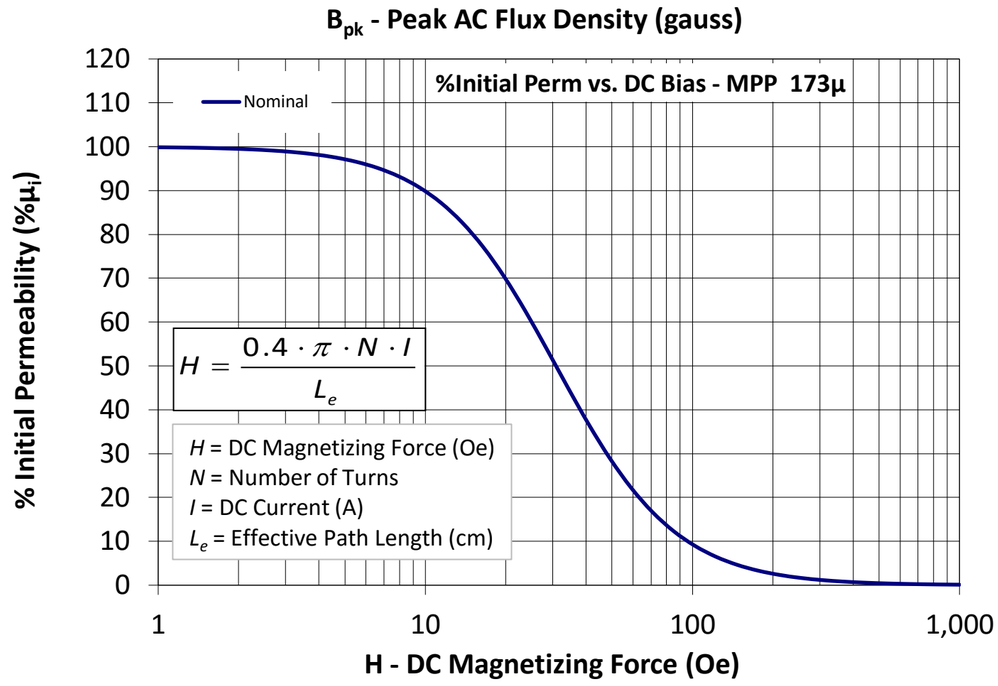
Part Number:	MP-068173-2H127

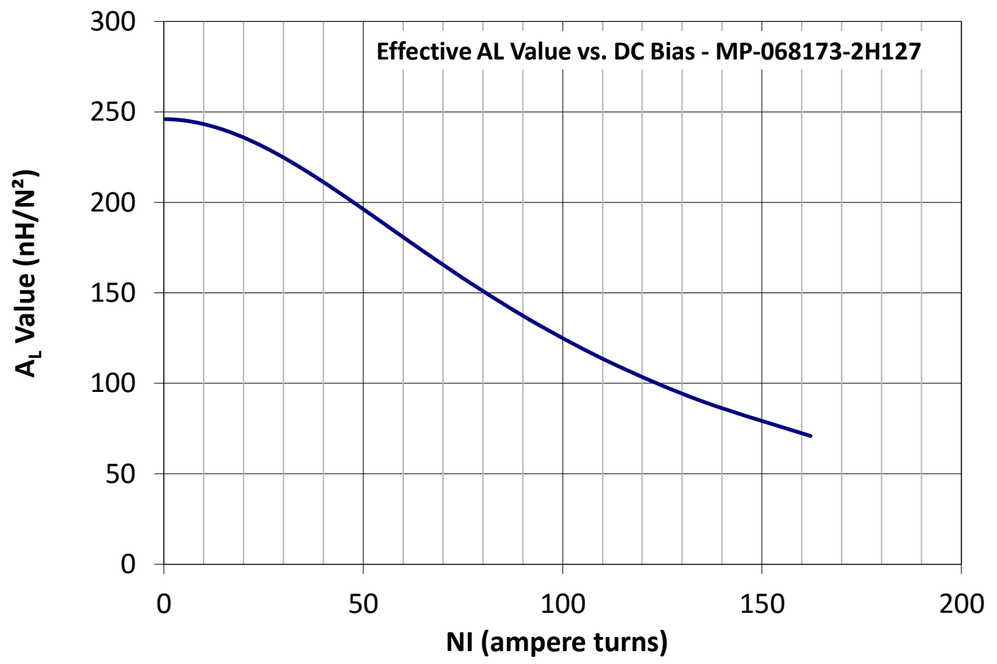
Revision 20160816 - Generated 2016-Aug-16

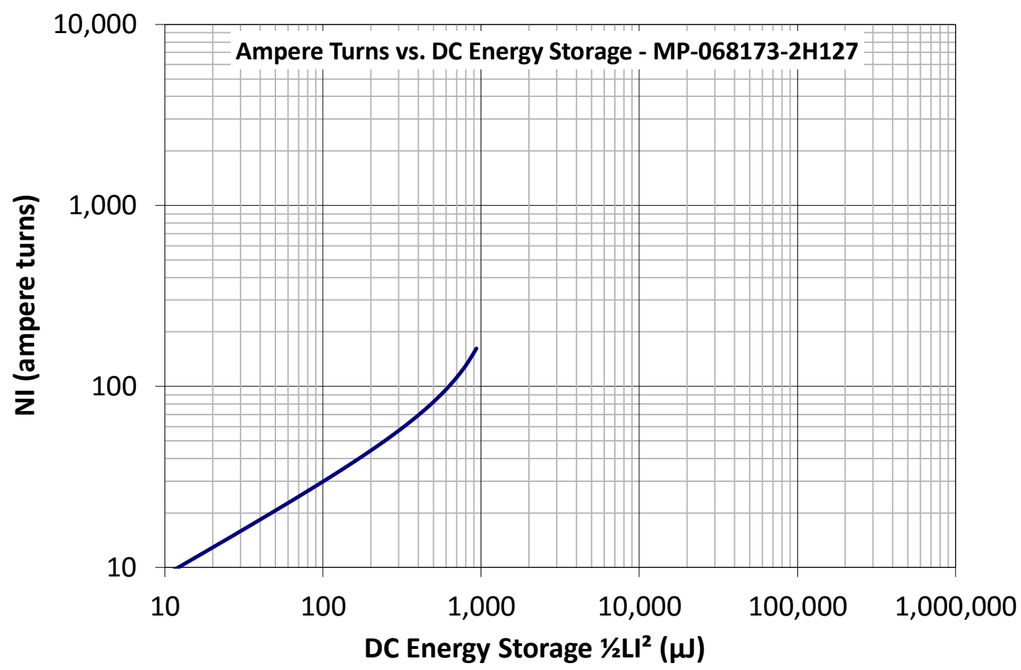


OD	(nom. - bare core)	17.27 mm	0.680 in
	(max. - after coating)	18.03 mm	0.710 in
ID	(nom. - bare core)	9.65 mm	0.380 in
	(min. - after coating)	9.02 mm	0.355 in
Ht	(nom. - bare core)	12.70 mm	0.500 in
	(max. - after coating)	13.46 mm	0.530 in
Mass	(approximate)	15 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.464 cm²	
	L_e - Eff. Mag. Path Length	4.14 cm	
	V_e - Eff. Core Volume	1.92 cm³	
	WA - Min. Eff. Window Area	0.639 cm²	
	sa - Surface Area	15.8 cm²	
	mlt - mean length per turn	4.04 cm	
Inductance	μ_i(reference)	173	
	A_L value (nominal)	246 nH/N²	
	Test Winding	N=70, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.14 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	$\%\mu_i = \frac{1}{a+b\cdot H^{c}}+d$		
	where H expressed in oersteds, and: *a=1.000E-02, b=1.313E-05, c=1.935, d=0.000*		
	H_{DC}	30 Oe	
	Percent Initial Perm(nom.)	51.4%	
	Percent Initial Perm(min.)	42.6%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	900 Pcs/Box	









Winding Table													
Wire Size	AWG	14	16	18	20	22	24	26	28	30	32	34
	mm	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160
Single Layer	Turns	12	15	20	26	32	41	52	65	82	102	128
	Rdc(Ω)	4.0 m	8.0 m	16.9 m	35.0 m	68.5 m	139.5 m	281.4 m	559.5 m	1.1	2.2	4.4
Full Winding	Turns	12	19	30	46	71	110	170	264	408	632	978
	Rdc(Ω)	4.0 m	10.1 m	25.4 m	61.9 m	151.9 m	374.3 m	920.1 m	2.3	5.6	13.8	33.9

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