



Part Number: **MP-065173-2**
 Revision 20160816 - Generated 2016-Aug-16



OD	(nom. - bare core) (max. - after coating)	16.64 mm 17.40 mm	0.655 in 0.685 in
ID	(nom. - bare core) (min. - after coating)	10.16 mm 9.53 mm	0.400 in 0.375 in
Ht	(nom. - bare core) (max. - after coating)	6.35 mm 7.11 mm	0.250 in 0.280 in
Mass	(approximate)	6.2 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.192 cm ²	
	L _e - Eff. Mag. Path Length	4.11 cm	
	V _e - Eff. Core Volume	0.789 cm ³	
	WA - Min. Eff. Window Area	0.713 cm ²	
	sa - Surface Area	11.2 cm ²	
	mlt - mean length per turn	2.69 cm	
Inductance	μ _i (reference)	173	
	A _L value (nominal)	104 nH/N ²	
	Test Winding	N=70, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.060 V	
Core Loss	AL tolerance	±8%	
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	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	
DC Saturation	Core Loss (nominal)	312 mW/cm ³	
	Core Loss (maximum)	359 mW/cm ³	
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=1.313E-05, c=1.935, d=0.000		
Coating/Pkg	H _{DC}	30 Oe	
	Percent Initial Perm.(nom.)	51.4%	
	Percent Initial Perm.(min.)	42.6%	
	Coating Type:	Blue Epoxy	
Winding Table	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	2,880 Pcs/Box	
	Wire Size	AWG	12

Winding Table	Wire Size	AWG	12	14	16	18	20	22	24	26	28	30	32
		mm	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200
	Single Layer	Turns	10	13	17	21	27	34	44	55	69	86	108
		Rdc(Ω)	1.4 m	2.9 m	6.0 m	11.8 m	24.1 m	48.3 m	99.4 m	197.7 m	394.4 m	781.8 m	1.6
Full Winding	Turns	9	14	21	33	51	79	123	190	295	456	706	
	Rdc(Ω)	1.3 m	3.1 m	7.4 m	18.5 m	45.6 m	112.3 m	278.0 m	682.9 m	1.7	4.1	10.2	

