



Part Number: **MS-025040-8**
 Revision 20160816 - Generated 2016-Aug-16



OD	(nom. - bare core)	6.35 mm	0.250 in
	(max. - after coating)	6.99 mm	0.275 in
ID	(nom. - bare core)	2.79 mm	0.110 in
	(min. - after coating)	2.29 mm	0.090 in
Ht	(nom. - bare core)	2.79 mm	0.110 in
	(max. - after coating)	3.43 mm	0.135 in
Mass	(approximate)	0.35 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0476 cm ²	
	L _e - Eff. Mag. Path Length	1.36 cm	
	V _e - Eff. Core Volume	0.0642 cm ³	
	WA - Min. Eff. Window Area	0.0410 cm ²	
	sa - Surface Area	1.80 cm ²	
	mlt - mean length per turn	1.27 cm	
Inductance	μ _i (reference)	40	
	A _L value (nominal)	16 nH/N ²	
	Test Winding	N=30, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.006 V	
	AL tolerance	±12%	
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=1.000E+06, b=6.961E+08, c=5.397E+06, d=4.127E-14		
	B _{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	441 mW/cm ³	
Core Loss (maximum)	507 mW/cm ³		
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=2.655E-06, c=1.703, d=0.000		
	H _{DC}	100 Oe	
	Percent Initial Perm (nom.)	59.6%	
Percent Initial Perm (min.)	52.0%		
Coating/Pkg	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	21,600 Pcs/Box	

Winding Table	Wire Size	AWG	26	28	30	32	34	36	38	40	42	44	-
		mm	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-
	Single Layer	Turns	11	14	19	24	30	38	49	61	77	96	-
		Rdc(Ω)	18.7 m	37.9 m	81.7 m	164.2 m	326.3 m	657.4 m	1.3	2.7	5.4	10.6	-
Full Winding	Turns	11	17	26	41	63	98	151	234	362	560	-	
	Rdc(Ω)	18.7 m	46.0 m	111.8 m	280.4 m	685.3 m	1.7	4.2	10.2	25.2	62.0	-	

