



**Part Number:** **MS-025125-8**  
 Revision 20160816 - Generated 2016-Aug-16



<b>OD</b>	(nom. - bare core)	6.35 mm	0.250 in
	(max. - after coating)	6.99 mm	0.275 in
<b>ID</b>	(nom. - bare core)	2.79 mm	0.110 in
	(min. - after coating)	2.29 mm	0.090 in
<b>Ht</b>	(nom. - bare core)	2.79 mm	0.110 in
	(max. - after coating)	3.43 mm	0.135 in
<b>Mass</b>	(approximate)	0.38 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0476 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	1.36 cm	
	V <sub>e</sub> - Eff. Core Volume	0.0642 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.0410 cm <sup>2</sup>	
	sa - Surface Area	1.80 cm <sup>2</sup>	
	mlt - mean length per turn	1.27 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	125	
	A <sub>L</sub> value (nominal)	52 nH/N <sup>2</sup>	
	Test Winding	N=30, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.006 V	
	AL tolerance	±12%	
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.394E+10, b=1.034E+09, c=1.244E+07, d=4.007E-14		
	B <sub>pk</sub>	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	276 mW/cm <sup>3</sup>	
Core Loss (maximum)	318 mW/cm <sup>3</sup>		
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=7.884E-06, c=1.883, d=0.000		
	H <sub>DC</sub>	40 Oe	
	Percent Initial Perm (nom.)	55.0%	
Percent Initial Perm (min.)	46.4%		
<b>Coating/Pkg</b>	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	21,600 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	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	-
	<b>Single Layer</b>	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	-
<b>Full Winding</b>	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	-	

