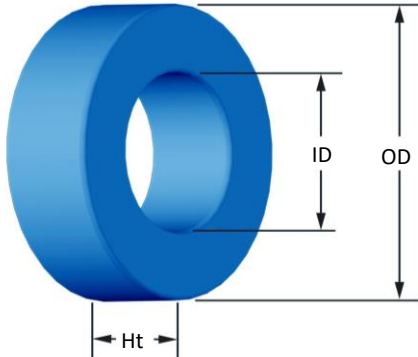




**Part Number:** **MS-650014-2**

Revision 2021-Dec-01 - Generated 2021-Dec-01



(If coated, Max./Min. includes coating)

<b>OD</b>	(nom. - bare core) (max.)	165.10 mm 166.37 mm	6.500 in 6.550 in
<b>ID</b>	(nom. - bare core) (min.)	102.40 mm 101.13 mm	4.031 in 3.981 in
<b>HT</b>	(nom. - bare core) (max.)	31.75 mm 33.02 mm	1.250 in 1.300 in
<b>Mass</b>	(approximate)	2,030 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	9.87 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	41.2 cm	
	V <sub>e</sub> - Eff. Core Volume	415 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	80.3 cm <sup>2</sup>	
	sa - Surface Area	838 cm <sup>2</sup>	
	mlt - mean length per turn	18.2 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	14	
	A <sub>L</sub> value (nominal)	42 nH/N <sup>2</sup>	
	Test Winding	N=100, #22 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	4.4 V	
	AL tolerance	±8%	
<b>Core Loss</b>	Core Loss(mW/cm <sup>3</sup> ): $\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}} + d \cdot Bpk^2 \cdot f^2$		
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.000E+06, b=2.035E+08, c=3.969E+06, d=3.473E-14		
	B <sub>pk</sub>	300 G	
	frequency	100 kHz	
	Core Loss (nominal)	168 mW/cm <sup>3</sup>	
	Core Loss (maximum)	193 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=1.065E-06, c=1.553, d=0.000		
	H <sub>dc</sub>	200 Oe	
	Percent Initial Perm(nom.)	71.5%	
	Percent Initial Perm(min.)	65.4%	
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	4 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	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
	<b>Single Layer</b>	Turns	83	104	130	162	203	253	315	393	489	609	758
		Rdc(Ω)	31.0 m	61.8 m	122.9 m	243.7 m	485.6 m	962.5 m	1.9	3.8	7.5	14.8	29.3
<b>Full Winding</b>	Turns	420	651	1,007	1,559	2,413	3,734	5,780	8,946	13,846	21,429	33,167	
	Rdc(Ω)	157.0 m	387.1 m	952.3 m	2.3	5.8	14.2	35.0	86.1	211.9	521.5	1.3 k	

