



**Part Number: MP-018205-8**  
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<b>OD</b>	(nom. - bare core)	4.65 mm	0.183 in									
	(max. - after coating)	5.21 mm	0.205 in									
<b>ID</b>	(nom. - bare core)	2.36 mm	0.093 in									
	(min. - after coating)	1.93 mm	0.076 in									
<b>Ht</b>	(nom. - bare core)	2.54 mm	0.100 in									
	(max. - after coating)	3.30 mm	0.130 in									
<b>Mass</b>	(approximate)	0.24 grams										
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0285 cm <sup>2</sup>										
	L <sub>e</sub> - Eff. Mag. Path Length	1.06 cm										
	V <sub>e</sub> - Eff. Core Volume	0.0302 cm <sup>3</sup>										
	WA - Min. Eff. Window Area	0.0293 cm <sup>2</sup>										
	sa - Surface Area	1.15 cm <sup>2</sup>										
	mlt - mean length per turn	1.08 cm										
	<b>Inductance</b>	μ <sub>i</sub> (reference)	205									
<b>Core Loss</b>	A <sub>L</sub> value (nominal)	68 nH/N <sup>2</sup>										
	Test Winding	N=30, #32 AWG										
	Frequency	10 kHz										
	Voltage on Agilent 4284A	0.004 V										
	AL tolerance	±8%										
<b>DC Saturation</b>	Core Loss(mW/cm <sup>3</sup> )= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$											
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.143E+10, b=2.045E+09, c=1.156E+07, d=8.981E-14											
	B <sub>pk</sub>	1000 G										
	frequency	50 kHz										
	Core Loss (nominal)	350 mW/cm <sup>3</sup>										
<b>Coating/Pkg</b>	Core Loss (maximum)	402 mW/cm <sup>3</sup>										
	%μ <sub>i</sub> = $\frac{1}{a + b \cdot H^c} + d$	where H expressed in oersteds, and: a=1.000E-02, b=3.822E-06, c=2.349, d=0.000										
	H <sub>DC</sub>	30 Oe										
	Percent Initial Perm(nom.)	47.0%										
<b>Winding Table</b>	Percent Initial Perm(min.)	36.6%										
	Coating Type:	Parylene N										
	Voltage Breakdown (min.)	500 Vrms										
	Limit	0.1 mA, 5 s										
<b>Wire Size</b>	Package Quantity	27,000 Pcs/Box										
	AWG	28	30	32	34	36	38	40	42	44	-	-
<b>Single Layer</b>	mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-	-
	Turns	12	15	20	25	32	40	51	64	81	-	-
<b>Full Winding</b>	Rdc(Ω)	27.7 m	55.1 m	116.8 m	232.1 m	472.6 m	939.5 m	1.9	3.8	7.7	-	-
	Turns	12	19	29	45	69	107	166	257	398	-	-
	Rdc(Ω)	27.7 m	69.8 m	169.3 m	417.9 m	1.0	2.5	6.2	15.3	37.6	-	-

