



**Part Number:** **FS-031014-8**

Revision 20190529 - Generated 2019-May-29



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

<b>OD</b>	(nom. - bare core) (max.)	7.87 mm 8.51 mm	0.310 in 0.335 in
<b>ID</b>	(nom. - bare core) (min.)	3.96 mm 3.43 mm	0.156 in 0.135 in
<b>HT</b>	(nom. - bare core) (max.)	3.18 mm 3.81 mm	0.125 in 0.150 in
<b>Mass</b>	(approximate)	0.60 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0615 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	1.79 cm	
	V <sub>e</sub> - Eff. Core Volume	0.110 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.0924 cm <sup>2</sup>	
	sa - Surface Area	2.65 cm <sup>2</sup>	
<b>Inductance</b>	μ <sub>i</sub> (reference)	14	
	A <sub>L</sub> value (nominal)	6 nH/N <sup>2</sup>	
<b>Core Loss</b>	Test Winding	N=45, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.012 V	
	AL tolerance	±8%	
	Core Loss(mW/cm <sup>3</sup> )= $\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$		
<b>DC Saturation</b>	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.000E+06, b=6.131E+07, c=2.047E+06, d=6.095E-14		
	B <sub>pk</sub>	300 G	
	frequency	100 kHz	
	Core Loss (nominal)	399 mW/cm <sup>3</sup>	
	Core Loss (maximum)	459 mW/cm <sup>3</sup>	
<b>Coating/Pkg</b>	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	14,400 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	22	24	26	28	30	32	34	36	38	40	42
		mm	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063
	<b>Single Layer</b>	Turns	11	14	18	23	29	37	47	59	74	93	116
		Rdc(Ω)	8.4 m	17.0 m	34.7 m	70.6 m	141.5 m	287.1 m	580.1 m	1.2	2.3	4.6	9.2
<b>Full Winding</b>	Turns	10	16	25	38	59	91	141	219	339	524	812	
	Rdc(Ω)	7.6 m	19.4 m	48.2 m	116.6 m	287.9 m	706.2 m	1.7	4.3	10.6	26.0	64.1	

