



**Part Number:** **FS-226090-2**  
 Revision 20160816 - Generated 2016-Aug-16



<b>OD</b>	(nom. - bare core) (max. - after coating)	57.15 mm 58.04 mm	2.250 in 2.285 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	26.39 mm 25.58 mm	1.039 in 1.007 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	15.24 mm 16.13 mm	0.600 in 0.635 in
<b>Mass</b>	(approximate)	200 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	2.29 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	12.506 cm	
	V <sub>e</sub> - Eff. Core Volume	28.6 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	5.14 cm <sup>2</sup>	
	sa - Surface Area	105 cm <sup>2</sup>	
	mlt - mean length per turn	7.75 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	90	
	A <sub>L</sub> value (nominal)	207 nH/N <sup>2</sup>	
	Test Winding	N=60, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.61 V	
	AL tolerance	±8%	
<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=1.000E+06, b=5.648E+08, c=7.440E+04, d=6.942E-14		
	B <sub>pk</sub>	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	869 mW/cm <sup>3</sup>	
Core Loss (maximum)	999 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=8.566E-06, c=1.584, d=0.000		
	H <sub>DC</sub>	50 Oe	
	Percent Initial Perm.(nom.)	70.4%	
Percent Initial Perm.(min.)	64.0%		
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	80 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	19	24	31	39	49	62	78	97	122	152	190
		Rdc(Ω)	3.0 m	6.1 m	12.5 m	25.0 m	50.0 m	100.5 m	201.2 m	397.8 m	795.8 m	1.6	3.1
<b>Full Winding</b>	Turns	27	42	64	100	154	239	370	572	886	1,371	2,122	
	Rdc(Ω)	4.3 m	10.6 m	25.8 m	64.1 m	157.0 m	387.5 m	954.2 m	2.3	5.8	14.2	35.0	

