



Part Number: **FS-225090-2**

Revision 20190529 - Generated 2019-May-29



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

OD	(nom. - bare core) (max.)	57.15 mm 58.04 mm	2.250 in 2.285 in
ID	(nom. - bare core) (min.)	35.56 mm 34.75 mm	1.400 in 1.368 in
HT	(nom. - bare core) (max.)	13.97 mm 14.86 mm	0.550 in 0.585 in
Mass	(approximate)	140 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	1.44 cm ²	
	L _e - Eff. Mag. Path Length	14.296 cm	
	V _e - Eff. Core Volume	20.7 cm ³	
	WA - Min. Eff. Window Area	9.48 cm ²	
	sa - Surface Area	109 cm ²	
	mlt - mean length per turn	7.04 cm	
Inductance	μ _i (reference)	90	
	A _L value (nominal)	112 nH/N ²	
	Test Winding	N=80, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.51 V	
	AL tolerance	±8%	
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B _{pk} 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 _{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	869 mW/cm ³	
Core Loss (maximum)	999 mW/cm ³		
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=8.566E-06, c=1.584, d=0.000		
	H _{DC}	50 Oe	
	Percent Initial Perm(nom.)	70.4%	
Percent Initial Perm(min.)	64.0%		
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	80 Pcs/Box	

Winding Table	Wire Size	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
	Single Layer	Turns	27	34	43	54	68	85	106	133	166	207	259
		Rdc(Ω)	3.9 m	7.8 m	15.7 m	31.4 m	63.0 m	125.2 m	248.2 m	495.3 m	983.2 m	1.9	3.9
Full Winding	Turns	50	77	119	184	285	441	682	1,056	1,635	2,530	3,916	
	Rdc(Ω)	7.2 m	17.7 m	43.6 m	107.1 m	263.9 m	649.4 m	1.6	3.9	9.7	23.8	58.7	

