



Part Number: **FS-068090-2**

Revision 20190529 - Generated 2019-May-29



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

OD	(nom. - bare core) (max.)	17.27 mm 18.03 mm	0.680 in 0.710 in
ID	(nom. - bare core) (min.)	9.65 mm 9.02 mm	0.380 in 0.355 in
HT	(nom. - bare core) (max.)	6.35 mm 7.11 mm	0.250 in 0.280 in
Mass	(approximate)	6.6 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.232 cm ²	
	L _e - Eff. Mag. Path Length	4.14 cm	
	V _e - Eff. Core Volume	0.961 cm ³	
	WA - Min. Eff. Window Area	0.639 cm ²	
	sa - Surface Area	11.7 cm ²	
	mlt - mean length per turn	2.77 cm	
Inductance	μ _i (reference)	90	
	A _L value (nominal)	64 nH/N ²	
	Test Winding	N=70, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.072 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	2,340 Pcs/Box	

Winding Table	Wire Size	AWG	14	16	18	20	22	24	26	28	30	32	34
		mm	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160
	Single Layer	Turns	12	15	20	26	32	41	52	65	82	102	128
		Rdc(Ω)	2.8 m	5.5 m	11.6 m	24.0 m	47.0 m	95.7 m	193.1 m	383.8 m	770.0 m	1.5	3.0
Full Winding	Turns	12	19	30	46	71	110	170	264	408	632	978	
	Rdc(Ω)	2.8 m	6.9 m	17.4 m	42.5 m	104.2 m	256.8 m	631.1 m	1.6	3.8	9.4	23.2	

