



Part Number: **FS-044090-2**

Revision 20190529 - Generated 2019-May-29



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

OD	(nom. - bare core)	11.18 mm	0.440 in										
	(max.)	11.89 mm	0.468 in										
ID	(nom. - bare core)	6.35 mm	0.250 in										
	(min.)	5.89 mm	0.232 in										
HT	(nom. - bare core)	3.96 mm	0.156 in										
	(max.)	4.72 mm	0.186 in										
Mass	(approximate)	1.7 grams											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0906 cm ²											
	L _e - Eff. Mag. Path Length	2.69 cm											
	V _e - Eff. Core Volume	0.244 cm ³											
	WA - Min. Eff. Window Area	0.272 cm ²											
	sa - Surface Area	5.10 cm ²											
	mlt - mean length per turn	1.84 cm											
Inductance	μ _i (reference)	90											
	A _L value (nominal)	38 nH/N ²											
	Test Winding	N=60, #30 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.024 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	9,000 Pcs/Box											
Winding Table	Wire Size	AWG	18	20	22	24	26	28	30	32	34	36	38
		mm	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100
	Single Layer	Turns	12	16	20	26	33	42	52	66	83	103	129
		Rdc(Ω)	4.6 m	9.8 m	19.5 m	40.2 m	81.2 m	164.4 m	323.6 m	653.3 m	1.3	2.6	5.1
	Full Winding	Turns	13	20	30	47	73	113	174	270	417	646	999
		Rdc(Ω)	5.0 m	12.2 m	29.2 m	72.7 m	179.6 m	442.2 m	1.1	2.7	6.6	16.2	39.8

