



Part Number: **FS-015075-8**

Revision 20190529 - Generated 2019-May-29



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

OD	(nom. - bare core)	3.94 mm	0.155 in										
	(max.)	4.14 mm	0.163 in										
ID	(nom. - bare core)	2.21 mm	0.087 in										
	(min.)	2.01 mm	0.079 in										
HT	(nom. - bare core)	2.54 mm	0.100 in										
	(max.)	2.74 mm	0.108 in										
Mass	(approximate)	0.14 grams											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0211 cm ²											
	L _e - Eff. Mag. Path Length	0.942 cm											
	V _e - Eff. Core Volume	0.0197 cm ³											
	WA - Min. Eff. Window Area	0.0317 cm ²											
	sa - Surface Area	0.776 cm ²											
	mlt - mean length per turn	0.862 cm											
Inductance	μ _i (reference)	75											
	A _L value (nominal)	21 nH/N ²											
	Test Winding	N=30, #32 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.003 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=1.883E+08, b=5.098E+08, c=1.162E+06, d=5.024E-14												
	B _{pk}	1000 G											
	frequency	50 kHz											
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and:												
	a=1.000E-02, b=3.486E-06, c=1.682, d=0.000												
	H _{DC}	80 Oe											
Coating/Pkg	Coating Type:	Parylene N											
	Voltage Breakdown (min.)	500 Vrms											
Winding Table	Wire Size	AWG	28	30	32	34	36	38	40	42	44	-	-
		mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-	-
	Single Layer	Turns	12	16	21	26	33	42	53	67	84	-	-
		Rdc(Ω)	22.0 m	46.7 m	97.4 m	191.8 m	387.1 m	783.6 m	1.6	3.2	6.3	-	-
Full Winding	Turns	13	20	31	49	75	116	180	279	431	-	-	
	Rdc(Ω)	23.8 m	58.3 m	143.8 m	361.4 m	879.8 m	2.2	5.3	13.2	32.3	-	-	

