



Part Number: **SH-080125-2**

Revision 20190403 - Generated 2019-Apr-04



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

OD	(nom. - bare core) (max.)	20.32 mm 21.08 mm	0.800 in 0.830 in									
ID	(nom. - bare core) (min.)	12.70 mm 12.07 mm	0.500 in 0.475 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	0.226 cm ²										
	L _e - Eff. Mag. Path Length	5.09 cm										
	V _e - Eff. Core Volume	1.15 cm ³										
	WA - Min. Eff. Window Area	1.14 cm ²										
	sa - Surface Area	15.5 cm ²										
Inductance	μ _i (reference)	125										
	A _L value (nominal)	68 nH/N ²										
	Test Winding	N=90, #28 AWG										
	Frequency	10 kHz										
	Voltage on Agilent 4284A	0.090 V										
Core Loss	AL tolerance	±8%										
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$											
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=7.985E+09, b=1.378E+09, c=4.041E+06, d=7.891E-15											
	B _{pk}	1000 G										
	frequency	50 kHz										
DC Saturation	Core Loss (nominal)	240 mW/cm ³										
	Core Loss (maximum)	276 mW/cm ³										
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$											
	where H expressed in oersteds, and: a=1.000E-02, b=3.265E-05, c=1.587, d=0.000											
Coating/Pkg	H _{DC}	40 Oe										
	Percent Initial Perm(nom.)	46.8%										
	Percent Initial Perm(min.)	39.7%										
	Coating Type:	Blue Epoxy										
Winding Table	Voltage Breakdown (min.)	1000 Vrms										
	Limit	0.1 mA, 5 s										
	Package Quantity	1,800 Pcs/Box										
	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28
Single Layer	mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
	Turns	10	13	17	22	28	35	44	56	70	88	110
Full Winding	Rdc(Ω)	1.0 m	2.0 m	4.1 m	8.5 m	17.1 m	34.1 m	68.1 m	137.9 m	274.2 m	548.2 m	1.1
	Turns	9	14	22	34	53	82	127	197	305	472	731
Full Winding	Rdc(Ω)	0.9 m	2.1 m	5.3 m	13.1 m	32.4 m	79.8 m	196.7 m	485.2 m	1.2	2.9	7.2

