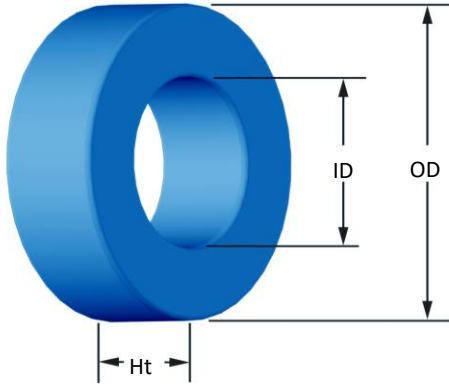




Part Number:

SH-031125-8

Revision 20170403 - Generated 2017-Apr-03



OD	(nom. - bare core) (max. - after coating)	7.87 mm 8.51 mm	0.310 in 0.335 in										
ID	(nom. - bare core) (min. - after coating)	3.96 mm 3.43 mm	0.156 in 0.135 in										
Ht	(nom. - bare core) (max. - after coating)	3.18 mm 3.81 mm	0.125 in 0.150 in										
Mass	(approximate)	0.63 grams											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0615 cm ²											
	L _e - Eff. Mag. Path Length	1.79 cm											
	V _e - Eff. Core Volume	0.110 cm ³											
	WA - Min. Eff. Window Area	0.0924 cm ²											
	sa - Surface Area	2.65 cm ²											
	mlt - mean length per turn	1.44 cm											
Inductance	μ _i (reference)	125											
	A _L value (nominal)	52 nH/N ²											
	Test Winding	N=45, #32 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.012 V											
	AL tolerance	±12%											
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=7.985E+09, b=1.378E+09, c=4.041E+06, d=7.891E-15												
	B _{pk}	1000 G											
	frequency	50 kHz											
	Core Loss (nominal)	240 mW/cm ³											
Core Loss (maximum)	276 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=3.265E-05, c=1.587, d=0.000												
	H _{0c}	40 Oe											
	Percent Initial Perm.(nom.)	46.8%											
Percent Initial Perm.(min.)	39.7%												
Coating/Pkg	Coating Type:	Parylene N											
	Voltage Breakdown (min.)	500 Vrms											
	Limit	0.1 mA, 5 s											
	Package Quantity	14,400 Pcs/Box											
Winding Table	Wire Size	AWG	22	24	26	28	30	32	34	36	38	40	42
		mm	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063
	Single Layer	Turns	11	14	18	23	29	37	47	59	74	93	116
		Rdc(Ω)	8.4 m	17.0 m	34.7 m	70.6 m	141.5 m	287.1 m	580.1 m	1.2	2.3	4.6	9.2
Full Winding	Turns	10	16	25	38	59	91	141	219	339	524	812	
	Rdc(Ω)	7.6 m	19.4 m	48.2 m	116.6 m	287.9 m	706.2 m	1.7	4.3	10.6	26.0	64.1	

