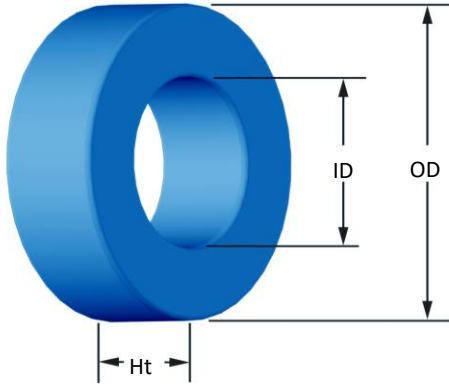




Part Number:

**SH-015125-8**

Revision 20170403 - Generated 2017-Apr-03



<b>OD</b>	(nom. - bare core) (max. - after coating)	3.94 mm 4.14 mm	0.155 in 0.163 in										
<b>ID</b>	(nom. - bare core) (min. - after coating)	2.21 mm 2.01 mm	0.087 in 0.079 in										
<b>Ht</b>	(nom. - bare core) (max. - after coating)	2.54 mm 2.74 mm	0.100 in 0.108 in										
<b>Mass</b>	(approximate)	0.11 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0211 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	0.942 cm											
	V <sub>e</sub> - Eff. Core Volume	0.0197 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	0.0317 cm <sup>2</sup>											
	sa - Surface Area	0.776 cm <sup>2</sup>											
	mlt - mean length per turn	0.862 cm											
<b>Inductance</b>	μ <sub>i</sub> (reference)	125											
	A <sub>L</sub> value (nominal)	35 nH/N <sup>2</sup>											
	Test Winding	N=30, #32 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.003 V											
	AL tolerance	±15%											
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$												
	where B <sub>pk</sub> 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 <sub>pk</sub>	1000 G											
	frequency	50 kHz											
	Core Loss (nominal)	240 mW/cm <sup>3</sup>											
Core Loss (maximum)	276 mW/cm <sup>3</sup>												
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.000E-02, b=3.265E-05, c=1.587, d=0.000												
	H <sub>0c</sub>	40 Oe											
	Percent Initial Perm.(nom.)	46.8%											
Percent Initial Perm.(min.)	39.7%												
<b>Coating/Pkg</b>	Coating Type:	Parylene N											
	Voltage Breakdown (min.)	500 Vrms											
	Limit	0.1 mA, 5 s											
	Package Quantity	27,000 Pcs/Box											
<b>Winding Table</b>	<b>Wire Size</b>	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	-	-
	<b>Single Layer</b>	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	-	-
	<b>Full Winding</b>	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	-	-

