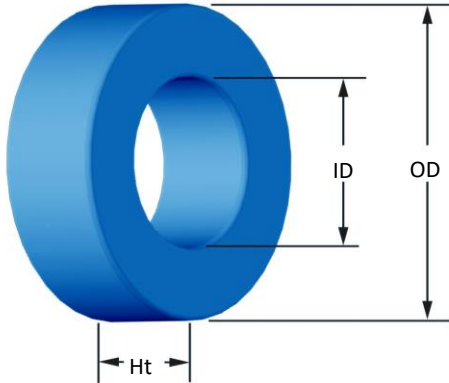




Part Number:

**SH-133125-2**

Revision 20170403 - Generated 2017-Apr-03



<b>OD</b>	(nom. - bare core) (max. - after coating)	33.02 mm 33.83 mm	1.300 in 1.332 in										
<b>ID</b>	(nom. - bare core) (min. - after coating)	19.94 mm 19.30 mm	0.785 in 0.760 in										
<b>Ht</b>	(nom. - bare core) (max. - after coating)	14.00 mm 15.00 mm	0.551 in 0.591 in										
<b>Mass</b>	(approximate)	41 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.874 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	8.15 cm											
	V <sub>e</sub> - Eff. Core Volume	7.12 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	2.93 cm <sup>2</sup>											
	sa - Surface Area	44.3 cm <sup>2</sup>											
	mlt - mean length per turn	5.42 cm											
<b>Inductance</b>	μ <sub>i</sub> (reference)	125											
	A <sub>L</sub> value (nominal)	166.7 nH/N <sup>2</sup>											
	Test Winding	N=70, #22 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.27 V											
	AL tolerance	±8%											
<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:	Blue Epoxy											
	Voltage Breakdown (min.)	1000 Vrms											
	Limit	0.1 mA, 5 s											
	Package Quantity	384 Pcs/Box											
<b>Winding Table</b>	<b>Wire Size</b>	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	<b>Single Layer</b>	Turns	14	18	22	29	36	46	58	73	91	114	142
		Rdc(Ω)	1.6 m	3.2 m	6.2 m	13.0 m	25.7 m	52.1 m	104.6 m	209.3 m	414.9 m	826.6 m	1.6
	<b>Full Winding</b>	Turns	15	24	37	57	88	136	211	326	504	780	1,208
Rdc(Ω)		1.7 m	4.3 m	10.4 m	25.5 m	62.7 m	154.2 m	380.4 m	934.6 m	2.3	5.7	13.9	

