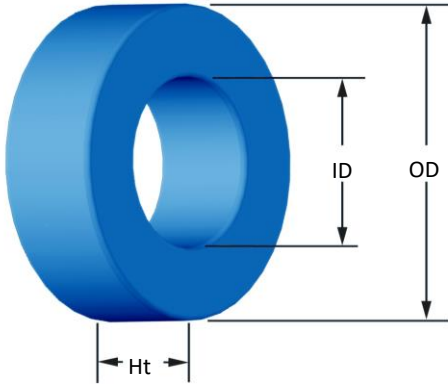




Part Number:

**SH-018125-8**

Revision 20170403 - Generated 2017-Apr-03



<b>OD</b>	(nom. - bare core) (max. - after coating)	4.65 mm 5.21 mm	0.183 in 0.205 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	2.36 mm 1.93 mm	0.093 in 0.076 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	2.54 mm 3.30 mm	0.100 in 0.130 in
<b>Mass</b>	(approximate)	0.17 grams	
<b>Magnetic Dimensions</b>	$A_e$ - Eff. Mag. Cross Section $L_e$ - Eff. Mag. Path Length $V_e$ - Eff. Core Volume WA - Min. Eff. Window Area sa - Surface Area mlt - mean length per turn	0.0285 cm <sup>2</sup> 1.06 cm 0.0302 cm <sup>3</sup> 0.0293 cm <sup>2</sup> 1.15 cm <sup>2</sup> 1.08 cm	
<b>Inductance</b>	$\mu_i$ (reference) $A_L$ value (nominal) Test Winding Frequency Voltage on Agilent 4284A AL tolerance	125 42 nH/N <sup>2</sup> N=30, #32 AWG 10 kHz 0.004 V $\pm 15\%$	
<b>Core Loss</b>	Core Loss(mW/cm <sup>3</sup> ) = $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ where $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and: $a=7.985E+09$ , $b=1.378E+09$ , $c=4.041E+06$ , $d=7.891E-15$ $B_{pk}$ frequency Core Loss (nominal) Core Loss (maximum)	1000 G 50 kHz 240 mW/cm <sup>3</sup> 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: $a=1.000E-02$ , $b=3.265E-05$ , $c=1.587$ , $d=0.000$ $H_{DC}$ Percent Initial Perm.(nom.) Percent Initial Perm.(min.)	40 Oe 46.8% 39.7%	
<b>Coating/Pkg</b>	Coating Type: Voltage Breakdown (min.) Limit Package Quantity	Parylene N 500 Vrms 0.1 mA, 5 s 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    15    20    25    32    40    51    64    81    -    -
		Rdc(Ω)	27.7 m    55.1 m    116.8 m    232.1 m    472.6 m    939.5 m    1.9    3.8    7.7    -    -
<b>Full Winding</b>	Turns	12    19    29    45    69    107    166    257    398    -    -	
	Rdc(Ω)	27.7 m    69.8 m    169.3 m    417.9 m    1.0    2.5    6.2    15.3    37.6    -    -	

