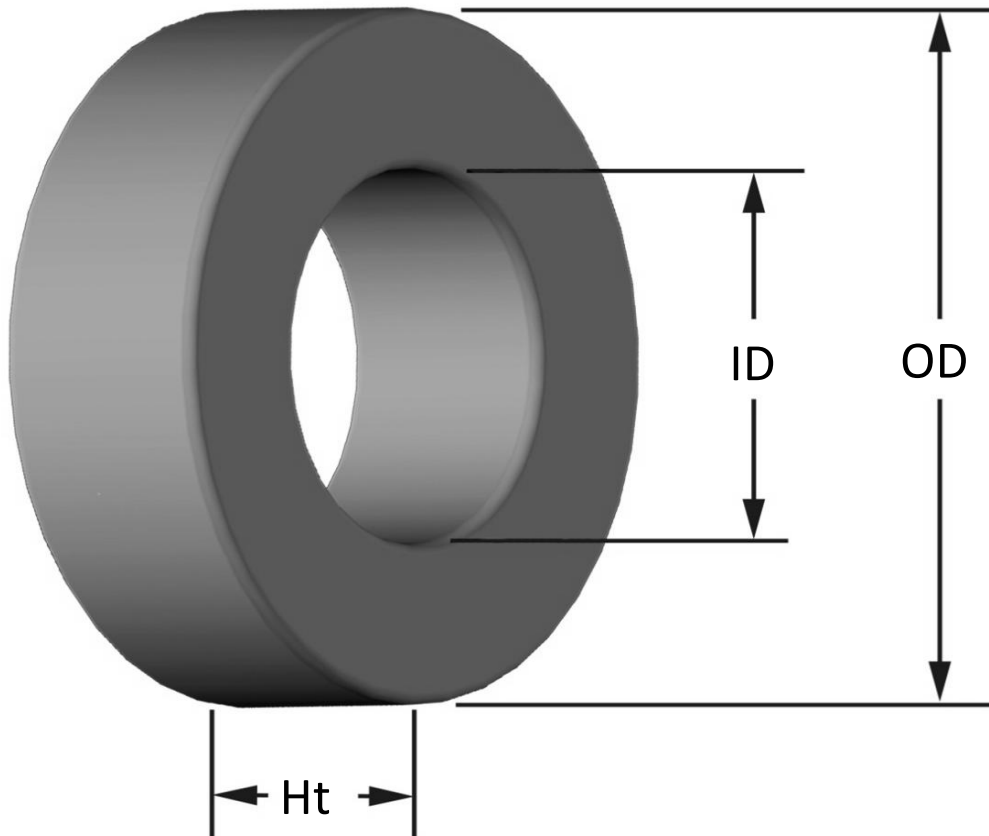




**Part Number:** **T12-1B**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	3.18 mm 3.30 mm	0.125 in 0.130 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	1.57 mm 1.45 mm	0.062 in 0.057 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	1.07 mm 1.19 mm	0.042 in 0.047 in
<b>Mass</b>	(approximate)	0.04 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.00800 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	0.750 cm	
	V <sub>e</sub> - Eff. Core Volume	0.00610	
	WA - Min. Eff. Window Area	0.0165 cm <sup>2</sup>	
	sa - Surface Area	0.371 cm <sup>2</sup>	
<b>Inductance</b>	μ <sub>i</sub> (reference)	20	
	A <sub>L</sub> value (nominal)	3.3 nH/N <sup>2</sup>	
	Test Winding	N=25, #36 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.0009 V	
	A <sub>L</sub> tolerance	±10%	
<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=1.90E+09, b=2.00E+08, c=9.00E+05, d=4.30E-15		
	B <sub>pk</sub>	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	31 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=1.00E-02, b=1.14E-06, c=1.43, d=0.00		
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm(nom.)	82.2%	
<b>Coating/Pkg</b>	Coating Type:	Parylene C	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	250,000 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	30	32	34	36	38	40	42	44	#N/A	#N/A	#N/A
		mm	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A	#N/A
	<b>Single Layer</b>	Turns	11	14	18	23	30	38	47	60	#N/A	#N/A	#N/A
		Rdc(Ω)	18.5 m	37.4 m	76.5 m	155.5 m	322.6 m	649.9 m	1.3	2.6	#N/A	#N/A	#N/A
<b>Full Winding</b>	Turns	11	16	25	39	60	93	145	224	#N/A	#N/A	#N/A	
	Rdc(Ω)	18.5 m	42.8 m	106.3 m	263.7 m	645.2 m	1.6	3.9	9.7	#N/A	#N/A	#N/A	

