



**Part Number:** **T184-18**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	46.74 mm 47.37 mm	1.840 in 1.865 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	24.13 mm 23.50 mm	0.950 in 0.925 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	18.03 mm 18.80 mm	0.710 in 0.740 in
<b>Mass</b>	(approximate)	140 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	1.88 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	11.2 cm	
	V <sub>e</sub> - Eff. Core Volume	21.0 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	4.34 cm <sup>2</sup>	
	sa - Surface Area	80.9 cm <sup>2</sup>	
	mlt - mean length per turn	7.32 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	55	
	A <sub>L</sub> value (nominal)	116 nH/N <sup>2</sup>	
	Test Winding	N=100, #24 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.83 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=8.00E+08, b=1.70E+08, c=9.00E+05, d=3.10E-14		
	B <sub>pk</sub>	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	46 mW/cm <sup>3</sup>	
Core Loss (maximum)	53 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=4.72E-06, c=1.65, d=0.00		
	H <sub>DC</sub>	100 Oe	
	Percent Initial Perm(nom.)	51.4%	
Percent Initial Perm(min.)	43.9%		
<b>Coating/Pkg</b>	Coating Type:	Green/Red Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	140 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	17	22	28	36	45	57	71	89	111	139	174
		Rdc(Ω)	2.6 m	5.3 m	10.7 m	21.8 m	43.3 m	87.3 m	173.0 m	344.8 m	683.9 m	1.4	2.7
<b>Full Winding</b>	Turns	23	35	54	84	130	202	312	483	747	1,157	1,790	
	Rdc(Ω)	3.5 m	8.4 m	20.6 m	50.9 m	125.2 m	309.4 m	760.0 m	1.9	4.6	11.3	27.9	

