



**Part Number:** **T16-18**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	4.06 mm 4.32 mm	0.160 in 0.170 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	1.98 mm 1.73 mm	0.078 in 0.068 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	1.52 mm 1.78 mm	0.060 in 0.070 in
<b>Mass</b>	(approximate)	0.09 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0150 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	0.930 cm	
	V <sub>e</sub> - Eff. Core Volume	0.0141 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.0234 cm <sup>2</sup>	
	sa - Surface Area	0.658 cm <sup>2</sup>	
	mlt - mean length per turn	0.701 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	55	
	A <sub>L</sub> value (nominal)	9.5 nH/N <sup>2</sup>	
	Test Winding	N=40, #36 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.003 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:	Parylene C	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	50,000 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	28	30	32	34	36	38	40	42	44	#N/A	#N/A
		mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A
	<b>Single Layer</b>	Turns	10	13	17	22	28	36	45	57	72	#N/A	#N/A
		Rdc(Ω)	14.9 m	30.9 m	64.2 m	132.1 m	267.3 m	546.6 m	1.1	2.2	4.4	#N/A	#N/A
<b>Full Winding</b>	Turns	10	15	23	36	56	86	133	206	319	#N/A	#N/A	
	Rdc(Ω)	14.9 m	35.6 m	86.8 m	216.1 m	534.6 m	1.3	3.2	7.9	19.5	#N/A	#N/A	

