



**Part Number:** **T68-6**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	17.53 mm 18.03 mm	0.690 in 0.710 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	9.40 mm 8.89 mm	0.370 in 0.350 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	4.83 mm 5.33 mm	0.190 in 0.210 in
<b>Mass</b>	(approximate)	3.8 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.179 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	4.23 cm	
	V <sub>e</sub> - Eff. Core Volume	0.759 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.621 cm <sup>2</sup>	
	sa - Surface Area	10.6 cm <sup>2</sup>	
<b>Inductance</b>	μ <sub>i</sub> (reference)	8.5	
	A <sub>L</sub> value (nominal)	4.7 nH/N <sup>2</sup>	
	Test Winding	N=100, #30 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	1.0 V	
<b>Core Loss &amp; Q</b>	A <sub>L</sub> tolerance	±5%	
	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 <sub>pk</sub> expressed in gauss, f expressed in hertz, and:	a=4.00E+09, b=3.00E+08, c=2.70E+06, d=8.90E-16	
	Q test winding	N=23, #20 AWG	
	Q frequency	10 MHz	
<b>DC Saturation</b>	Q min on HP4342A	266	
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	a=1.00E-02, b=4.87E-08, c=1.57, d=0.00	
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm(nom.)	98.1%	
<b>Coating/Pkg</b>	Percent Initial Perm(min.)	97.4%	
	Coating Type:	Yellow/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
<b>Winding Table</b>	Package Quantity	3,000 Pcs/Box	
	Wire Size	AWG	14 16 18 20 22 24 26 28 30 32 34
<b>Single Layer</b>	mm	1.600 1.250 1.000 0.800 0.630 0.500 0.400 0.315 0.250 0.200 0.160	
	Turns	12 15 20 25 32 40 51 64 80 101 126	
<b>Full Winding</b>	Rdc(Ω)	2.4 m 4.8 m 10.1 m 20.2 m 41.1 m 81.7 m 165.6 m 330.4 m 656.9 m 1.3 2.6	
	Turns	12 19 29 45 69 107 166 256 397 614 950	
<b>Full Winding</b>	Rdc(Ω)	2.4 m 6.1 m 14.7 m 36.3 m 88.6 m 218.4 m 538.9 m 1.3 3.3 8.0 19.7	

