



**Part Number:** **T12-6**

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)	1.27 mm 1.40 mm	0.050 in 0.055 in
<b>Mass</b>	(approximate)	0.04 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0100 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	0.750 cm	
	V <sub>e</sub> - Eff. Core Volume	0.00770	
	WA - Min. Eff. Window Area	0.0165 cm <sup>2</sup>	
	sa - Surface Area	0.395 cm <sup>2</sup>	
<b>Inductance</b>	μ <sub>i</sub> (reference)	8.5	
	A <sub>L</sub> value (nominal)	1.7 nH/N <sup>2</sup>	
	Test Winding	N=25, #36 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	0.11 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=25, #36 AWG	
	Q frequency	20 MHz	
<b>DC Saturation</b>	Q min on HP4342A	103	
	%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:	Parylene C	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
<b>Winding Table</b>	Package Quantity	250,000 Pcs/Box	
	Wire Size	AWG	30 32 34 36 38 40 42 44 #N/A #N/A #N/A
<b>Single Layer</b>	mm	0.250 0.200 0.160 0.125 0.100 0.080 0.063 0.050 #N/A #N/A #N/A	
	Turns	11 14 18 23 30 38 47 60 #N/A #N/A #N/A	
<b>Full Winding</b>	Rdc(Ω)	20.0 m 40.5 m 82.8 m 168.3 m 349.0 m 703.1 m 1.4 2.8 #N/A #N/A #N/A	
	Turns	11 16 25 39 60 93 145 224 #N/A #N/A #N/A	
<b>Full Winding</b>	Rdc(Ω)	20.0 m 46.3 m 115.0 m 285.3 m 698.0 m 1.7 4.3 10.5 #N/A #N/A #N/A	

