



**Part Number:** **T157-7**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	39.88 mm 40.51 mm	1.570 in 1.595 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)	14.48 mm 15.24 mm	0.570 in 0.600 in										
<b>Mass</b>	(approximate)	54 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	1.06 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	10.1 cm											
	V <sub>e</sub> - Eff. Core Volume	10.7 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	4.34 cm <sup>2</sup>											
	sa - Surface Area	59.7 cm <sup>2</sup>											
<b>Inductance</b>	μ <sub>i</sub> (reference)	9											
	A <sub>L</sub> value (nominal)	12 nH/N <sup>2</sup>											
	Test Winding	N=100, #21 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.47 V											
<b>Core Loss &amp; Q</b>	A <sub>L</sub> tolerance	±5%											
	Core Loss(mW/cm <sup>3</sup> )=	$\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$											
	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=9.60E-16											
	Q test winding	N=30, #22 AWG											
	Q frequency	0 kHz											
<b>DC Saturation</b>	Q min on HP4342A	256											
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$											
	where H expressed in oersteds, and:	a=1.00E-02, b=1.48E-07, c=1.46, d=0.00											
	H <sub>DC</sub>	200 Oe											
	Percent Initial Perm(nom.)	96.7%											
<b>Coating/Pkg</b>	Percent Initial Perm(min.)	95.7%											
	Coating Type:	White/Clear Epoxy Paint											
	Voltage Breakdown (min.)	500 Vrms, 60Hz											
	Limit	3 mA, 5 s											
<b>Winding Table</b>	Package Quantity	240 Pcs/Box											
	<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)	2.1 m	4.3 m	8.6 m	17.6 m	35.1 m	70.6 m	140.0 m	279.0 m	553.4 m	1.1	2.2
	<b>Full Winding</b>	Turns	23	35	54	84	130	202	312	483	747	1,157	1,790
		Rdc(Ω)	2.8 m	6.8 m	16.6 m	41.2 m	101.3 m	250.4 m	615.0 m	1.5	3.7	9.2	22.6

