



**Part Number:** **T30-1**

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<b>OD</b>	(nom. - bare core) (max. - after coating)	7.80 mm 8.18 mm	0.307 in 0.322 in										
<b>ID</b>	(nom. - bare core) (min. - after coating)	3.84 mm 3.45 mm	0.151 in 0.136 in										
<b>Ht</b>	(nom. - bare core) (max. - after coating)	3.25 mm 3.76 mm	0.128 in 0.148 in										
<b>Mass</b>	(approximate)	0.70 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0600 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	1.84 cm											
	V <sub>e</sub> - Eff. Core Volume	0.110 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	0.0937 cm <sup>2</sup>											
	sa - Surface Area	2.49 cm <sup>2</sup>											
<b>Inductance</b>	μ <sub>i</sub> (reference)	20											
	A <sub>L</sub> value (nominal)	8.5 nH/N <sup>2</sup>											
	Test Winding	N=100, #32 AWG											
	Frequency	1 MHz											
	Voltage on Agilent 4284A	1.0 V											
<b>Core Loss</b>	A <sub>L</sub> tolerance	±10%											
	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=1.90E+09, b=2.00E+08, c=9.00E+05, d=4.30E-15											
	B <sub>pk</sub>	140 G											
	frequency	100 kHz											
<b>DC Saturation</b>	Core Loss (nominal)	31 mW/cm <sup>3</sup>											
	Core Loss (maximum)	36 mW/cm <sup>3</sup>											
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$											
	where H expressed in oersteds, and:	a=1.00E-02, b=1.14E-06, c=1.43, d=0.00											
	H <sub>DC</sub>	200 Oe											
<b>Coating/Pkg</b>	Percent Initial Perm(nom.)	82.2%											
	Percent Initial Perm(min.)	78.0%											
	Coating Type:	Blue/Clear Epoxy Paint											
	Voltage Breakdown (min.)	500 Vrms, 60Hz											
<b>Winding Table</b>	Limit	3 mA, 5 s											
	Package Quantity	25,000 Pcs/Box											
	<b>Wire Size</b>	AWG	22	24	26	28	30	32	34	36	38	40	42
		mm	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063
	<b>Single Layer</b>	Turns	11	14	18	23	30	37	47	59	75	94	117
Rdc(Ω)		8.1 m	16.5 m	33.7 m	68.4 m	141.9 m	278.3 m	562.2 m	1.1	2.3	4.5	9.0	
<b>Full Winding</b>	Turns	10	16	25	39	60	93	143	222	344	532	823	
	Rdc(Ω)	7.4 m	18.8 m	46.7 m	116.0 m	283.7 m	699.5 m	1.7	4.2	10.4	25.6	63.0	

