



**Part Number:** **T30-2**

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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)	0.55 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)	10	
	A <sub>L</sub> value (nominal)	4.3 nH/N <sup>2</sup>	
	Test Winding	N=47, #32 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> )=	$\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$	
	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=47, #32 AWG	
	Q frequency	4.8 MHz	
<b>DC Saturation</b>	Q min on HP4342A	141	
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	a=1.00E-02, b=1.83E-07, c=1.46, d=0.00	
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm(nom.)	95.9%	
<b>Coating/Pkg</b>	Percent Initial Perm(min.)	94.8%	
	Coating Type:	Red/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
<b>Winding Table</b>	Package Quantity	25,000 Pcs/Box	
	Wire Size	AWG	22 24 26 28 30 32 34 36 38 40 42
<b>Single Layer</b>	mm	0.630 0.500 0.400 0.315 0.250 0.200 0.160 0.125 0.100 0.080 0.063	
	Turns	11 14 18 23 30 37 47 59 75 94 117	
<b>Full Winding</b>	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	
	Turns	10 16 25 39 60 93 143 222 344 532 823	
<b>Full Winding</b>	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	

