



**Part Number:** **T37-3**

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<b>OD</b>	(nom. - bare core) (max. - after coating)	9.53 mm 9.91 mm	0.375 in 0.390 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	5.21 mm 4.83 mm	0.205 in 0.190 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)	0.96 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0640 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	2.31 cm	
	V <sub>e</sub> - Eff. Core Volume	0.147 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.183 cm <sup>2</sup>	
	sa - Surface Area	3.47 cm <sup>2</sup>	
	mlt - mean length per turn	1.50 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	35	
	A <sub>L</sub> value (nominal)	12 nH/N <sup>2</sup>	
	Test Winding	N=100, #33 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.028 V	
A <sub>L</sub> tolerance	±10%		
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	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	
	Core Loss (nominal)	31 mW/cm <sup>3</sup>	
Core Loss (maximum)	36 mW/cm <sup>3</sup>		
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.00E-02, b=3.49E-06, c=1.43, d=0.00		
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm(nom.)	60.1%	
Percent Initial Perm(min.)	53.7%		
<b>Coating/Pkg</b>	Coating Type:	Gray/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	20,000 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	20	22	24	26	28	30	32	34	36	38	40
		mm	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080
	<b>Single Layer</b>	Turns	12	16	21	26	34	42	53	67	84	105	132
		Rdc(Ω)	6.0 m	12.7 m	26.5 m	52.2 m	108.6 m	213.4 m	428.3 m	861.2 m	1.7	3.4	6.8
<b>Full Winding</b>	Turns	13	20	32	49	76	117	181	280	433	671	1,038	
	Rdc(Ω)	6.5 m	15.9 m	40.4 m	98.4 m	242.8 m	594.5 m	1.5	3.6	8.9	21.8	53.7	

