



**Part Number:** **T22-52**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	5.66 mm 6.05 mm	0.223 in 0.238 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	2.46 mm 2.08 mm	0.097 in 0.082 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	3.63 mm 4.14 mm	0.143 in 0.163 in
<b>Mass</b>	(approximate)	0.47 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0520 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	1.28 cm	
	V <sub>e</sub> - Eff. Core Volume	0.0670 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.0341 cm <sup>2</sup>	
	sa - Surface Area	1.60 cm <sup>2</sup>	
	mlt - mean length per turn	1.33 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	75	
	A <sub>L</sub> value (nominal)	38.5 nH/N <sup>2</sup>	
	Test Winding	N=50, #36 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.012 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=1.00E+09, b=1.10E+08, c=2.10E+06, d=6.90E-14		
	B <sub>pk</sub>	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	58 mW/cm <sup>3</sup>	
	Core Loss (maximum)	67 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=4.66E-06, c=1.84, d=0.00		
	H <sub>DC</sub>	50 Oe	
	Percent Initial Perm(nom.)	61.6%	
	Percent Initial Perm(min.)	53.4%	
<b>Coating/Pkg</b>	Coating Type:	Green/Blue Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	40,000 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	26	28	30	32	34	36	38	40	42	44	#N/A
		mm	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A
	<b>Single Layer</b>	Turns	10	13	17	21	27	35	44	55	69	87	#N/A
		Rdc(Ω)	17.8 m	36.8 m	76.4 m	150.2 m	307.1 m	633.1 m	1.3	2.5	5.0	10.1	#N/A
<b>Full Winding</b>	Turns	9	14	22	34	52	81	125	193	299	463	#N/A	
	Rdc(Ω)	16.0 m	39.6 m	98.9 m	243.2 m	591.5 m	1.5	3.6	8.8	21.8	53.6	#N/A	

