



**Part Number: T225-52B**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	57.15 mm 57.79 mm	2.250 in 2.275 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	35.69 mm 35.05 mm	1.405 in 1.380 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	25.40 mm 26.16 mm	1.000 in 1.030 in
<b>Mass</b>	(approximate)	260 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	2.59 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	14.6 cm	
	V <sub>e</sub> - Eff. Core Volume	37.8 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	9.65 cm <sup>2</sup>	
	sa - Surface Area	132 cm <sup>2</sup>	
	mlt - mean length per turn	9.26 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	75	
	A <sub>L</sub> value (nominal)	155 nH/N <sup>2</sup>	
	Test Winding	N=100, #22 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	1.1 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	60 Pcs/Box	

<b>Winding Table</b>	<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	27	34	43	54	68	86	107	134	168	209	261
		Rdc(Ω)	5.1 m	10.3 m	20.7 m	41.4 m	82.8 m	166.6 m	329.6 m	656.5 m	1.3	2.6	5.1
<b>Full Winding</b>	Turns	51	78	121	187	290	449	694	1,075	1,663	2,574	3,985	
	Rdc(Ω)	9.7 m	23.6 m	58.3 m	143.2 m	353.2 m	869.6 m	2.1	5.3	13.0	31.9	78.5	

