



**Part Number:** **T44-52C**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	11.18 mm 11.68 mm	0.440 in 0.460 in										
<b>ID</b>	(nom. - bare core) (min. - after coating)	5.82 mm 5.31 mm	0.229 in 0.209 in										
<b>Ht</b>	(nom. - bare core) (max. - after coating)	6.35 mm 6.86 mm	0.250 in 0.270 in										
<b>Mass</b>	(approximate)	2.9 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.157 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	2.68 cm											
	V <sub>e</sub> - Eff. Core Volume	0.419 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	0.221 cm <sup>2</sup>											
	sa - Surface Area	5.76 cm <sup>2</sup>											
<b>Inductance</b>	μ <sub>i</sub> (reference)	75											
	A <sub>L</sub> value (nominal)	55 nH/N <sup>2</sup>											
	Test Winding	N=100, #34 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.070 V											
<b>Core Loss</b>	A <sub>L</sub> tolerance	±10%											
	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=1.00E+09, b=1.10E+08, c=2.10E+06, d=6.90E-14											
	B <sub>pk</sub>	140 G											
	frequency	100 kHz											
<b>DC Saturation</b>	Core Loss (nominal)	58 mW/cm <sup>3</sup>											
	Core Loss (maximum)	67 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=4.66E-06, c=1.84, d=0.00											
	H <sub>DC</sub>	50 Oe											
<b>Coating/Pkg</b>	Percent Initial Perm(nom.)	61.6%											
	Percent Initial Perm(min.)	53.4%											
	Coating Type:	Green/Blue Epoxy Paint											
	Voltage Breakdown (min.)	500 Vrms, 60Hz											
<b>Winding Table</b>	Limit	3 mA, 5 s											
	Package Quantity	5,000 Pcs/Box											
	<b>Wire Size</b>	AWG	18	20	22	24	26	28	30	32	34	36	38
		mm	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100
	<b>Single Layer</b>	Turns	11	14	18	23	29	37	47	59	74	93	116
Rdc(Ω)		5.2 m	10.6 m	21.7 m	44.0 m	88.3 m	179.1 m	361.9 m	722.5 m	1.4	2.9	5.7	
<b>Full Winding</b>	Turns	10	16	25	38	59	91	141	219	339	524	812	
	Rdc(Ω)	4.8 m	12.1 m	30.1 m	72.7 m	179.6 m	440.6 m	1.1	2.7	6.6	16.2	40.0	

