



Part Number: **T80-52**

Revision 20190524 - Generated 2019-May-30



OD	(nom. - bare core) (max. - after coating)	20.19 mm 20.70 mm	0.795 in 0.815 in
ID	(nom. - bare core) (min. - after coating)	12.57 mm 12.07 mm	0.495 in 0.475 in
Ht	(nom. - bare core) (max. - after coating)	6.35 mm 6.99 mm	0.250 in 0.275 in
Mass	(approximate)	8.3 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section L_e - Eff. Mag. Path Length V_e - Eff. Core Volume WA - Min. Eff. Window Area sa - Surface Area mlt - mean length per turn	0.231 cm ² 5.14 cm 1.19 cm ³ 1.14 cm ² 15.0 cm ² 2.86 cm	
Inductance	μ_i (reference) A_L value (nominal) Test Winding Frequency Voltage on Agilent 4284A A_L tolerance	75 42 nH/N ² N=100, #28 AWG 10 kHz 0.10 V ±10%	
Core Loss	Core Loss(mW/cm ³)= $\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$ where B_{pk} expressed in gauss, f expressed in hertz, and: $a=1.00E+09$, $b=1.10E+08$, $c=2.10E+06$, $d=6.90E-14$	Bpk frequency Core Loss (nominal) Core Loss (maximum)	140 G 100 kHz 58 mW/cm ³ 67 mW/cm ³
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ where H expressed in oersteds, and: $a=1.00E-02$, $b=4.66E-06$, $c=1.84$, $d=0.00$	H_{DC} Percent Initial Perm(nom.) Percent Initial Perm(min.)	50 Oe 61.6% 53.4%
Coating/Pkg	Coating Type: Voltage Breakdown (min.) Limit Package Quantity	Green/Blue Epoxy Paint 500 Vrms, 60Hz 3 mA, 5 s 2,000 Pcs/Box	

Winding Table	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
	Single Layer	Turns	10	13	17	22	28	35	44	56	70	88	110
	Full Winding	Rdc(Ω)	0.9 m	1.9 m	4.0 m	8.3 m	16.8 m	33.3 m	66.7 m	135.0 m	268.3 m	536.4 m	1.1
	Turns	9	14	22	34	53	82	127	197	305	472	731	
	Rdc(Ω)	0.8 m	2.1 m	5.2 m	12.8 m	31.8 m	78.1 m	192.5 m	474.8 m	1.2	2.9	7.1	

