



Part Number: **T20-18**

Revision 20190524 - Generated 2019-May-30



OD	(nom. - bare core) (max. - after coating)	5.08 mm 5.33 mm	0.200 in 0.210 in
ID	(nom. - bare core) (min. - after coating)	2.24 mm 1.98 mm	0.088 in 0.078 in
Ht	(nom. - bare core) (max. - after coating)	1.78 mm 2.03 mm	0.070 in 0.080 in
Mass	(approximate)	0.17 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	0.0230 cm ² 1.15 cm 0.0260 cm ³ 0.0308 cm ² 0.962 cm ² 0.841 cm	
Inductance	μ_i (reference) A_L value (nominal) Test Winding Frequency Voltage on Agilent 4284A A_L tolerance	55 13 nH/N ² N=50, #36 AWG 10 kHz 0.005 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: $a=8.00E+08$, $b=1.70E+08$, $c=9.00E+05$, $d=3.10E-14$ Bpk frequency Core Loss (nominal) Core Loss (maximum)	 140 G 100 kHz 46 mW/cm ³ 53 mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ where H expressed in oersteds, and: $a=1.00E-02$, $b=4.72E-06$, $c=1.65$, $d=0.00$ H_{DC} Percent Initial Perm(nom.) Percent Initial Perm(min.)	 100 Oe 51.4% 43.9%	
Coating/Pkg	Coating Type: Voltage Breakdown (min.) Limit Package Quantity	Parylene C 500 Vrms, 60Hz 3 mA, 5 s 100,000 Pcs/Box	

Winding Table	Wire Size	AWG	28	30	32	34	36	38	40	42	44	#N/A	#N/A
		mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A
	Single Layer	Turns	12	16	20	26	33	42	52	66	83	#N/A	#N/A
		Rdc(Ω)	21.5 m	45.5 m	90.5 m	187.2 m	377.8 m	764.7 m	1.5	3.0	6.1	#N/A	#N/A
Full Winding	Turns	13	20	30	47	73	113	175	271	419	#N/A	#N/A	
	Rdc(Ω)	23.3 m	56.9 m	135.8 m	338.3 m	835.7 m	2.1	5.1	12.5	30.7	#N/A	#N/A	

