



Part Number: **T80-7**

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)	6.0 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.231 cm ²	
	L _e - Eff. Mag. Path Length	5.14 cm	
	V _e - Eff. Core Volume	1.19 cm ³	
	WA - Min. Eff. Window Area	1.14 cm ²	
	sa - Surface Area	15.0 cm ²	
	mlt - mean length per turn	2.86 cm	
Inductance	μ _i (reference)	9	
	A _L value (nominal)	5 nH/N ²	
	Test Winding	N=100, #28 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	1.0 V	
Core Loss & Q	A _L tolerance	±5%	
	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=4.00E+09, b=3.00E+08, c=2.70E+06, d=9.60E-16	
	Q test winding	N=100, #28 AWG	
	Q frequency	2.5 MHz	
DC Saturation	Q min on HP4342A	179	
	%μ _i =	$\frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	a=1.00E-02, b=1.48E-07, c=1.46, d=0.00	
	H _{DC}	200 Oe	
	Percent Initial Perm(nom.)	96.7%	
Coating/Pkg	Percent Initial Perm(min.)	95.7%	
	Coating Type:	White/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
Winding Table	Package Quantity	2,000 Pcs/Box	
	Wire Size	AWG	10 12 14 16 18 20 22 24 26 28 30
Single Layer	mm	2.500 2.000 1.600 1.250 1.000 0.800 0.630 0.500 0.400 0.315 0.250	
	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	
Full Winding	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	

