



**Part Number:** T80-6

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	20.19 mm 20.70 mm	0.795 in 0.815 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	12.57 mm 12.07 mm	0.495 in 0.475 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	6.35 mm 6.99 mm	0.250 in 0.275 in
<b>Mass</b>	(approximate)	6.0 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.231 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	5.14 cm	
	V <sub>e</sub> - Eff. Core Volume	1.19 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	1.14 cm <sup>2</sup>	
	sa - Surface Area	15.0 cm <sup>2</sup>	
<b>Inductance</b>	μ <sub>i</sub> (reference)	8.5	
	A <sub>L</sub> value (nominal)	4.5 nH/N <sup>2</sup>	
	Test Winding	N=100, #28 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	1.0 V	
<b>Core Loss &amp; Q</b>	A <sub>L</sub> tolerance	±5%	
	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=4.00E+09, b=3.00E+08, c=2.70E+06, d=8.90E-16	
	Q test winding	N=20, #20 AWG	
	Q frequency	8 MHz	
<b>DC Saturation</b>	Q min on HP4342A	270	
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	a=1.00E-02, b=4.87E-08, c=1.57, d=0.00	
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm(nom.)	98.1%	
<b>Coating/Pkg</b>	Percent Initial Perm(min.)	97.4%	
	Coating Type:	Yellow/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
<b>Winding Table</b>	Package Quantity	2,000 Pcs/Box	
	Wire Size	AWG	10 12 14 16 18 20 22 24 26 28 30
<b>Single Layer</b>	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	
<b>Full Winding</b>	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	
<b>Full Winding</b>	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	

