



Part Number: **T18-6**

Revision 20190524 - Generated 2019-May-30



OD	(nom. - bare core) (max. - after coating)	4.70 mm 4.95 mm	0.185 in 0.195 in
ID	(nom. - bare core) (min. - after coating)	2.59 mm 2.34 mm	0.102 in 0.092 in
Ht	(nom. - bare core) (max. - after coating)	1.02 mm 1.27 mm	0.040 in 0.050 in
Mass	(approximate)	0.06 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0100 cm ²	
	L _e - Eff. Mag. Path Length	1.14 cm	
	V _e - Eff. Core Volume	0.0114 cm ³	
	WA - Min. Eff. Window Area	0.0429 cm ²	
	sa - Surface Area	0.756 cm ²	
	mlt - mean length per turn	0.632 cm	
Inductance	μ _i (reference)	8.5	
	A _L value (nominal)	0.9 nH/N ²	
	Test Winding	N=35, #34 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	0.16 V	
A _L tolerance	±5%		
Core Loss & Q	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=8.90E-16	
	Q test winding	N=35, #34 AWG	
	Q frequency	20 MHz	
DC Saturation	%μ _i =	$\frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	a=1.00E-02, b=4.87E-08, c=1.57, d=0.00	
	H _{DC}	200 Oe	
	Percent Initial Perm(nom.)	98.1%	
Coating/Pkg	Coating Type:	Parylene C	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	200,000 Pcs/Box	

Winding Table	Wire Size	AWG	26	28	30	32	34	36	38	40	42	44	#N/A
		mm	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A
	Single Layer	Turns	11	15	19	24	31	39	50	62	78	98	#N/A
		Rdc(Ω)	9.3 m	20.2 m	40.7 m	81.7 m	167.9 m	335.9 m	684.8 m	1.4	2.7	5.4	#N/A
Full Winding	Turns	11	18	27	42	66	102	157	243	377	583	#N/A	
	Rdc(Ω)	9.3 m	24.2 m	57.8 m	143.0 m	357.4 m	878.5 m	2.2	5.3	13.1	32.1	#N/A	

