



Part Number: **T50-10**

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OD	(nom. - bare core) (max. - after coating)	12.70 mm 13.21 mm	0.500 in 0.520 in
ID	(nom. - bare core) (min. - after coating)	7.70 mm 7.19 mm	0.303 in 0.283 in
Ht	(nom. - bare core) (max. - after coating)	4.83 mm 5.33 mm	0.190 in 0.210 in
Mass	(approximate)	1.8 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.112 cm ²	
	L _e - Eff. Mag. Path Length	3.19 cm	
	V _e - Eff. Core Volume	0.358 cm ³	
	WA - Min. Eff. Window Area	0.406 cm ²	
	sa - Surface Area	6.44 cm ²	
Inductance	μ _i (reference)	6	
	A _L value (nominal)	3.1 nH/N ²	
	Test Winding	N=35, #24 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=8.00E-16	
	Q test winding	N=35, #24 AWG	
	Q frequency	9 MHz	
DC Saturation	Q min on HP4342A	158	
	%μ _i =	$\frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and:	a=1.00E-02, b=5.54E-09, c=1.69, d=0.00	
	H _{DC}	200 Oe	
	Percent Initial Perm(nom.)	99.6%	
Coating/Pkg	Percent Initial Perm(min.)	99.4%	
	Coating Type:	Black/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
Winding Table	Package Quantity	6,000 Pcs/Box	
	Wire Size	AWG	16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36
Single Layer	mm	1.250, 1.000, 0.800, 0.630, 0.500, 0.400, 0.315, 0.250, 0.200, 0.160, 0.125	
	Turns	12, 15, 20, 25, 32, 41, 51, 64, 81, 101, 127	
Full Winding	Rdc(Ω)	3.2 m, 6.4 m, 13.5 m, 26.8 m, 54.6 m, 111.3 m, 220.2 m, 439.4 m, 884.5 m, 1.8, 3.5	
	Turns	12, 19, 29, 45, 70, 108, 168, 259, 401, 621, 962	
Full Winding	Rdc(Ω)	3.2 m, 8.1 m, 19.6 m, 48.3 m, 119.5 m, 293.2 m, 725.3 m, 1.8, 4.4, 10.8, 26.6	

