



Part Number: **T12-45**

Revision 20190524 - Generated 2019-May-30



OD	(nom. - bare core) (max. - after coating)	3.18 mm 3.30 mm	0.125 in 0.130 in										
ID	(nom. - bare core) (min. - after coating)	1.57 mm 1.45 mm	0.062 in 0.057 in										
Ht	(nom. - bare core) (max. - after coating)	1.27 mm 1.40 mm	0.050 in 0.055 in										
Mass	(approximate)	0.06 grams											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0100 cm ²											
	L _e - Eff. Mag. Path Length	0.750 cm											
	V _e - Eff. Core Volume	0.00770											
	WA - Min. Eff. Window Area	0.0165 cm ²											
	sa - Surface Area	0.395 cm ²											
Inductance	μ _i (reference)	100											
	A _L value (nominal)	16 nH/N ²											
	Test Winding	N=25, #36 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.001 V											
Core Loss	A _L tolerance	±10%											
	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=1.20E+09, b=1.30E+08, c=2.40E+06, d=1.20E-13											
	B _{pk}	140 G											
	frequency	100 kHz											
DC Saturation	Core Loss (nominal)	61 mW/cm ³											
	Core Loss (maximum)	71 mW/cm ³											
	%μ _i =	$\frac{1}{a + b \cdot H^c} + d$											
	where H expressed in oersteds, and:	a=1.00E-02, b=2.44E-05, c=1.61, d=0.00											
	H _{DC}	50 Oe											
Coating/Pkg	Percent Initial Perm(nom.)	43.3%											
	Percent Initial Perm(min.)	36.3%											
	Coating Type:	Parylene C											
	Voltage Breakdown (min.)	500 Vrms, 60Hz											
Winding Table	Limit	3 mA, 5 s											
	Package Quantity	250,000 Pcs/Box											
	Wire Size	AWG	30	32	34	36	38	40	42	44	#N/A	#N/A	#N/A
		mm	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A	#N/A
	Single Layer	Turns	11	14	18	23	30	38	47	60	#N/A	#N/A	#N/A
Rdc(Ω)		20.0 m	40.5 m	82.8 m	168.3 m	349.0 m	703.1 m	1.4	2.8	#N/A	#N/A	#N/A	
Full Winding	Turns	11	16	25	39	60	93	145	224	#N/A	#N/A	#N/A	
	Rdc(Ω)	20.0 m	46.3 m	115.0 m	285.3 m	698.0 m	1.7	4.3	10.5	#N/A	#N/A	#N/A	

