



**Part Number:** **T12-12**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	3.18 mm 3.30 mm	0.125 in 0.130 in										
<b>ID</b>	(nom. - bare core) (min. - after coating)	1.57 mm 1.45 mm	0.062 in 0.057 in										
<b>Ht</b>	(nom. - bare core) (max. - after coating)	1.27 mm 1.40 mm	0.050 in 0.055 in										
<b>Mass</b>	(approximate)	0.04 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.0100 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	0.750 cm											
	V <sub>e</sub> - Eff. Core Volume	0.00770											
	WA - Min. Eff. Window Area	0.0165 cm <sup>2</sup>											
	sa - Surface Area	0.395 cm <sup>2</sup>											
<b>Inductance</b>	μ <sub>i</sub> (reference)	4											
	A <sub>L</sub> value (nominal)	0.75 nH/N <sup>2</sup>											
	Test Winding	N=25, #36 AWG											
	Frequency	1 MHz											
	Voltage on Agilent 4284A	0.11 V											
<b>Core Loss</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=4.40E-16											
	B <sub>pk</sub>	140 G											
	frequency	100 kHz											
<b>DC Saturation</b>	Core Loss (nominal)	18 mW/cm <sup>3</sup>											
	Core Loss (maximum)	20 mW/cm <sup>3</sup>											
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$											
	where H expressed in oersteds, and:	a=1.00E-02, b=1.34E-08, c=1.55, d=0.00											
	H <sub>DC</sub>	200 Oe											
<b>Coating/Pkg</b>	Percent Initial Perm(nom.)	99.5%											
	Percent Initial Perm(min.)	99.4%											
	Coating Type:	Parylene C											
	Voltage Breakdown (min.)	500 Vrms, 60Hz											
<b>Winding Table</b>	Limit	3 mA, 5 s											
	Package Quantity	250,000 Pcs/Box											
	<b>Wire Size</b>	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
	<b>Single Layer</b>	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	
<b>Full Winding</b>	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	

