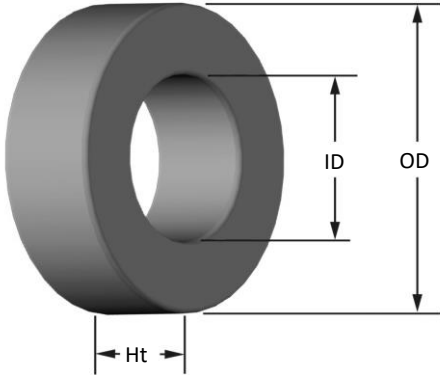




Part Number: **T20-45**
Revision 20200518 - Generated 2020-May-18



OD	(nom. - bare core)	5.08 mm	0.200 in									
	(max. - after coating)	5.33 mm	0.210 in									
ID	(nom. - bare core)	2.24 mm	0.088 in									
	(min. - after coating)	1.98 mm	0.078 in									
Ht	(nom. - bare core)	1.78 mm	0.070 in									
	(max. - after coating)	2.03 mm	0.080 in									
Mass	(approximate)	0.19 grams										
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0230 cm ²										
	L_e - Eff. Mag. Path Length	1.15 cm										
	V_e - Eff. Core Volume	0.0260 cm ³										
	W_A - Min. Eff. Window Area	0.0308 cm ²										
	s_a - Surface Area	0.962 cm ²										
	mlt - mean length per turn	0.841 cm										
Inductance	μ_i (reference)	100										
	A_L value (nominal)	22.5 nH/N ²										
	Test Winding	N=50, #36 AWG										
	Frequency	10 kHz										
	Voltage on Agilent 4284A	0.005 V										
	A_L tolerance	±10%										
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{B_{pk}^3 + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$											
	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										
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$											
	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/Plg	Percent Initial Perm(nom.)	43.3%										
	Percent Initial Perm(min.)	36.3%										
	Coating Type:	Parylene C over Black/Black										
	Voltage Breakdown (min.)	500 Vrms, 60Hz										
Winding Table	Limit	3 mA, 5 s										
	Package Quantity	100,000 Pcs/Box										
	Wire Size	AWG	28	30	32	34	36	38	40	42	44	#N/A
Single Layer	mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A
	Turns	12	16	20	26	33	42	52	66	83	#N/A	#N/A
Full Winding	Rdc(Ω)	21.5 m	45.5 m	90.5 m	187.2 m	377.8 m	764.7 m	1.5	3.0	6.1	#N/A	#N/A
	Turns	13	20	30	47	73	113	175	271	419	#N/A	#N/A
	Rdc(Ω)	23.3 m	56.9 m	135.8 m	338.3 m	835.7 m	2.1	5.1	12.5	30.7	#N/A	#N/A

