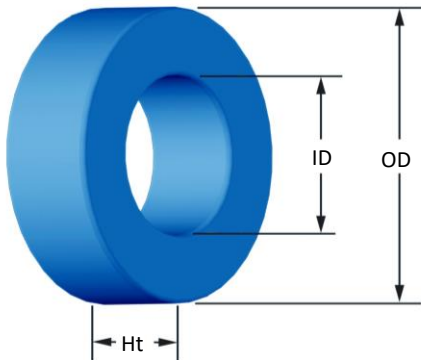




Part Number: **MS-080090-2**

Revision 2021-Dec-01 - Generated 2021-Dec-01



(If coated, Max./Min. includes coating)

OD	(nom. - bare core) (max.)	20.32 mm 21.08 mm	0.800 in 0.830 in										
ID	(nom. - bare core) (min.)	12.70 mm 12.07 mm	0.500 in 0.475 in										
HT	(nom. - bare core) (max.)	6.35 mm 7.11 mm	0.250 in 0.280 in										
Mass	(approximate)	6.8 grams											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.226 cm ²											
	L _e - Eff. Mag. Path Length	5.09 cm											
	V _e - Eff. Core Volume	1.15 cm ³											
	WA - Min. Eff. Window Area	1.14 cm ²											
	sa - Surface Area	15.5 cm ²											
Inductance	μ _i (reference)	90											
	A _L value (nominal)	49 nH/N ²											
Core Loss	Test Winding	N=90, #28 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	0.090 V											
	AL tolerance	±8%											
	Core Loss(mW/cm ³):	$\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}} + d \cdot Bpk^2 \cdot f^2$											
DC Saturation	where B _{pk} expressed in gauss, f expressed in hertz, and: a=7.890E+09, b=7.111E+08, c=8.980E+06, d=2.846E-14												
	B _{pk}	1000 G											
	frequency	50 kHz											
	Core Loss (nominal)	323 mW/cm ³											
	Core Loss (maximum)	372 mW/cm ³											
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.000E-02, b=3.994E-06, c=1.883, d=0.000												
	H _{dc}	50 Oe											
Coating/Pkg	Percent Initial Perm(nom.)	61.3%											
	Percent Initial Perm(min.)	52.9%											
	Coating Type:	Blue Epoxy											
	Voltage Breakdown (min.)	1000 Vrms											
Winding Table	Limit	0.1 mA, 5 s											
	Package Quantity	1,800 Pcs/Box											
	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
Single Layer	Turns	10	13	17	22	28	35	44	56	70	88	110	
	Rdc(Ω)	1.0 m	2.0 m	4.1 m	8.5 m	17.1 m	34.1 m	68.1 m	137.9 m	274.2 m	548.2 m	1.1	
Full Winding	Turns	9	14	22	34	53	82	127	197	305	472	731	
	Rdc(Ω)	0.9 m	2.1 m	5.3 m	13.1 m	32.4 m	79.8 m	196.7 m	485.2 m	1.2	2.9	7.2	

