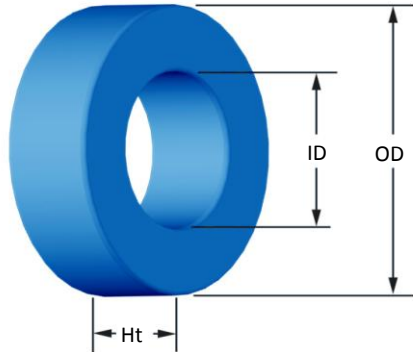




**Part Number:** **MS-301075-2**

Revision 20190318 - Generated 2019-Mar-18



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

<b>OD</b>	(nom. - bare core) (max.)	77.80 mm 78.94 mm	3.063 in 3.108 in
<b>ID</b>	(nom. - bare core) (min.)	49.23 mm 47.96 mm	1.938 in 1.888 in
<b>HT</b>	(nom. - bare core) (max.)	15.88 mm 17.15 mm	0.625 in 0.675 in
<b>Mass</b>	(approximate)	250 grams	
<b>Magnetic Dimensions</b>	$A_e$ - Eff. Mag. Cross Section	2.22 cm <sup>2</sup>	
	$L_e$ - Eff. Mag. Path Length	19.612 cm	
	$V_e$ - Eff. Core Volume	43.5 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	18.1 cm <sup>2</sup>	
	sa - Surface Area	193 cm <sup>2</sup>	
	mlt - mean length per turn	8.93 cm	
<b>Inductance</b>	$\mu_i$ (reference)	75	
	$A_L$ value (nominal)	107 nH/N <sup>2</sup>	
	Test Winding	N=120, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	1.2 V	
	AL tolerance	±8%	
<b>Core Loss</b>	Core Loss(mW/cm <sup>3</sup> ): $\frac{f}{Bpk^3} + \frac{f}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}} + d \cdot Bpk^2 \cdot f^2$		
	where $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and: $a=7.890E+09$ , $b=7.111E+08$ , $c=8.980E+06$ , $d=2.846E-14$		
	$B_{pk}$	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	323 mW/cm <sup>3</sup>	
	Core Loss (maximum)	372 mW/cm <sup>3</sup>	
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: $a=1.000E-02$ , $b=3.414E-06$ , $c=1.841$ , $d=0.000$		
	$H_{DC}$	80 Oe	
	Percent Initial Perm.(nom.)	47.9%	
	Percent Initial Perm.(min.)	39.6%	
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	36 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	<b>Single Layer</b>	Turns	38	48	60	75	95	118	148	185	230	287	358
		Rdc(Ω)	7.0 m	14.0 m	27.9 m	55.4 m	111.5 m	220.3 m	439.5 m	873.8 m	1.7	3.4	6.8
	<b>Full Winding</b>	Turns	95	146	227	351	543	840	1,300	2,012	3,114	4,820	7,459
		Rdc(Ω)	17.4 m	42.6 m	105.4 m	259.1 m	637.6 m	1.6	3.9	9.5	23.4	57.6	141.7

