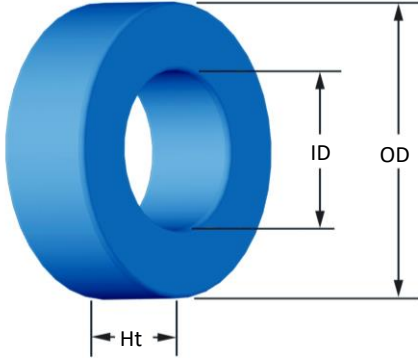




**Part Number:** MS-108075-2

Revision 2021-Nov-08 - Generated 2021-Nov-08



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

<b>OD</b>	(nom. - bare core)	26.92 mm	1.060 in
	(max.)	27.69 mm	1.090 in
<b>ID</b>	(nom. - bare core)	14.73 mm	0.580 in
	(min.)	14.10 mm	0.555 in
<b>HT</b>	(nom. - bare core)	14.00 mm	0.551 in
	(max.)	15.00 mm	0.591 in
<b>Mass</b>	(approximate)	30 grams	

<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.819 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	6.35 cm
	V <sub>e</sub> - Eff. Core Volume	5.20 cm <sup>3</sup>
	WA - Min. Eff. Window Area	1.56 cm <sup>2</sup>
	sa - Surface Area	31.7 cm <sup>2</sup>
	mlt - mean length per turn	5.06 cm

<b>Inductance</b>	μ <sub>i</sub> (reference)	75
	A <sub>L</sub> value (nominal)	117.5 nH/N <sup>2</sup>
	Test Winding	N=80, #26 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.29 V
	AL tolerance	±8%

<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$	
	where B <sub>pk</sub> 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 <sub>pk</sub>	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 <sub>DC</sub>	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	500 Pcs/Box

<b>Winding Table</b>	<b>Wire Size</b>	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
	<b>Single Layer</b>	Turns	12	16	20	26	33	41	52	66	82	103	129
		Rdc(Ω)	2.0 m	4.2 m	8.4 m	17.3 m	35.0 m	69.1 m	139.3 m	281.3 m	555.8 m	1.1	2.2
<b>Full Winding</b>	Turns	13	20	30	47	73	112	174	269	417	645	998	
	Rdc(Ω)	2.2 m	5.3 m	12.6 m	31.3 m	77.3 m	188.7 m	466.2 m	1.1	2.8	7.0	17.1	

