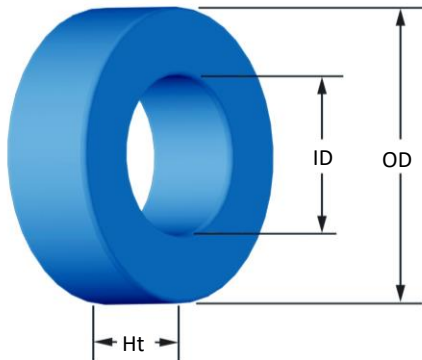




Part Number:

MS-015040-8

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



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

OD	(nom. - bare core) (max.)	3.94 mm 4.14 mm	0.155 in 0.163 in
ID	(nom. - bare core) (min.)	2.21 mm 2.01 mm	0.087 in 0.079 in
HT	(nom. - bare core) (max.)	2.54 mm 2.74 mm	0.100 in 0.108 in
Mass	(approximate)	0.11 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0211 cm ²	
	L_e - Eff. Mag. Path Length	0.942 cm	
	V_e - Eff. Core Volume	0.0197 cm ³	
	W_A - Min. Eff. Window Area	0.0317 cm ²	
	S_A - Surface Area	0.776 cm ²	
	mlt - mean length per turn	0.862 cm	
Inductance	μ_i (reference)	40	
	A_L value (nominal)	11 nH/N ²	
	Test Winding	N=30, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.003 V	
	A_L tolerance	±15%	
Core Loss	$Core\ Loss(mW/cm^3) = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B_{pk} expressed in gauss, f expressed in hertz, and:		
	$a=1.000E+06$, $b=6.961E+08$, $c=5.397E+06$, $d=4.127E-14$		
	B_{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	441 mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	$a=1.000E-02$, $b=2.655E-06$, $c=1.703$, $d=0.000$		
	H_{DC}	100 Oe	
Coating/Pkg	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	27,000 Pcs/Box	

Winding Table	Wire Size	AWG	28	30	32	34	36	38	40	42	44	-	-
		mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-	-
	Single Layer	Turns	12	16	21	26	33	42	53	67	84	-	-
	Full Winding	Turns	13	20	31	49	75	116	180	279	431	-	-
		Rdc(Ω)	22.0 m	46.7 m	97.4 m	191.8 m	387.1 m	783.6 m	1.6	3.2	6.3	-	-
		Rdc(Ω)	23.8 m	58.3 m	143.8 m	361.4 m	879.8 m	2.2	5.3	13.2	32.3	-	-

