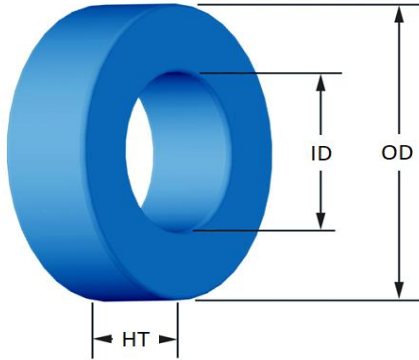




Part Number: FS-157040-2

Revision: 2023-Dec-06



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

	mm	in
OD	(nom. - bare core) 39.88 (max.) 40.69	1.570 1.602
ID	(nom. - bare core) 24.13 (min.) 23.32	0.950 0.918
HT	(nom. - bare core) 14.48 (max.) 15.37	0.570 0.605

Mass	(approximate)	70	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	1.07	cm ²
	L_e - Eff. Mag. Path Length	9.85	cm
	V_e - Eff. Core Volume	10.5	cm ³
	W_A - Min. Eff. Window Area	4.27	cm ²
	s_a - Surface Area	60.2	cm ²
	m_{lt} - mean length per turn	5.98	cm

Inductance	μ_i (reference)	40	
	A_L value (nominal)	54	nH/N ²
	Test Winding	70 Turns	AWG# 20
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.33	V
AL tolerance	±8%		

Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B_{pk} expressed in gauss, f expressed in hertz, and: $a=1.000E+06$, $b=3.071E+08$, $c=3.524E+06$, $d=5.634E-14$		
	B_{pk}	1000	G
	frequency	50 k	Hz
	Core Loss (nominal)	780	mW/cm ³
Core Loss (maximum)	897	mW/cm ³	

DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and: $a=1.000E-02$, $b=6.314E-08$, $c=2.151$, $d=0.000$	
	H_{DC}	200 Oe
	Percent Initial Perm.(nom.)	64.0 %
Percent Initial Perm.(min.)	54.5 %	

Coating/Pkg	Coating Type:	Blue Epoxy
	Voltage Breakdown (min.)	1000 Vrms
	Limit	0.1 mA, 5 s
	Package Quantity	180 Pcs/Box

Winding Table	Wire Size	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
	Single Layer	Turns	17	22	28	35	45	56	70	88	111	138	173
		Rdc(Ω)	2.1 m	4.3 m	8.7 m	17.3 m	35.4 m	70.0 m	139.2 m	278.3 m	558.3 m	1.1	2.2
Full Winding	Turns	22	35	54	83	128	199	307	476	736	1,139	1,764	
	Rdc(Ω)	2.7 m	6.8 m	16.8 m	41.0 m	100.6 m	248.8 m	610.5 m	1.5	3.7	9.1	22.4	

