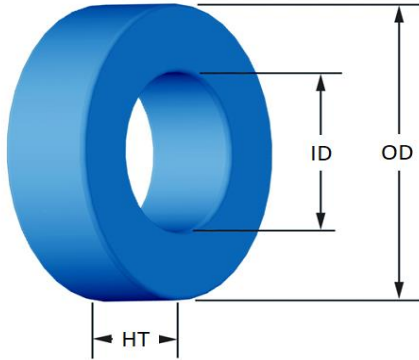




Part Number: **FS-521014-2**

Revision: 2023-Dec-06



(If coated, Max./Min. includes coating)		mm	in
OD	(nom. - bare core)	132.54	5.218
	(max.)	134.21	5.284
ID	(nom. - bare core)	78.59	3.094
	(min.)	77.04	3.033
HT	(nom. - bare core)	25.40	1.000
	(max.)	26.80	1.055
Mass	(approximate)	1,200	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	6.71	cm ²
	L_e - Eff. Mag. Path Length	32.429	cm
	V_e - Eff. Core Volume	218	cm ³
	W_A - Min. Eff. Window Area	46.6	cm ²
	s_a - Surface Area	540	cm ²
	$m_l t$ - mean length per turn	14.9	cm
Inductance	μ_i (reference)	14	
	A_L value (nominal)	36.4	nH/N ²
	Test Winding	200 Turns	AWG# 18
	Frequency	10k	Hz
	Voltage on Agilent 4284A	6.0	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: $a=1.000E+06$, $b=2.165E+08$, $c=3.644E+06$, $d=4.961E-14$		
	B_{pk}	300	G
	frequency	100 k	Hz
	Core Loss (nominal)	181	mW/cm ³
Core Loss (maximum)	208	mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: $a=1.000E-02$, $b=5.273E-07$, $c=1.418$, $d=0.000$		
	H_{DC}	200	Oe
	Percent Initial Perm.(nom.)	91.2	%
Percent Initial Perm.(min.)	88.9	%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	6 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	62	78	98	123	154	192	239	298	372	463	577
		Rdc(Ω)	19.0 m	38.1 m	76.1 m	151.9 m	302.4 m	599.6 m	1.2	2.4	4.7	9.3	18.3
Full Winding	Turns	244	378	584	905	1,400	2,167	3,354	5,191	8,035	12,436	19,248	
	Rdc(Ω)	74.9 m	184.5 m	453.4 m	1.1	2.7	6.8	16.7	41.0	100.9	248.5	611.6	

