

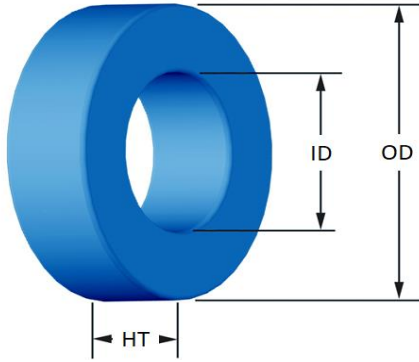


Part Number:

**FS-131014-2**

Revision:

2023-Dec-06



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

		mm	in										
<b>OD</b>	(nom. - bare core)	33.02	1.300										
	(max.)	33.83	1.332										
<b>ID</b>	(nom. - bare core)	19.94	0.785										
	(min.)	19.30	0.760										
<b>HT</b>	(nom. - bare core)	8.76	0.345										
	(max.)	9.70	0.382										
<b>Mass</b>	(approximate)	25	grams										
<b>Magnetic Dimensions</b>	$A_e$ - Eff. Mag. Cross Section	0.551	cm <sup>2</sup>										
	$L_e$ - Eff. Mag. Path Length	8.15	cm										
	$V_e$ - Eff. Core Volume	4.49	cm <sup>3</sup>										
	$W_A$ - Min. Eff. Window Area	2.93	cm <sup>2</sup>										
	$s_a$ - Surface Area	37.8	cm <sup>2</sup>										
	$m_{lt}$ - mean length per turn	4.36	cm										
<b>Inductance</b>	$\mu_i$ (reference)	14											
	$A_L$ value (nominal)	11.9	nH/N <sup>2</sup>										
	Test Winding	70 Turns	AWG# 22										
	Frequency	10k	Hz										
	Voltage on Agilent 4284A	0.17	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 $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and: $a=1.000E+06$ , $b=6.131E+07$ , $c=2.047E+06$ , $d=6.095E-14$												
	$B_{pk}$	300	G										
	frequency	100 k	Hz										
	Core Loss (nominal)	399	mW/cm <sup>3</sup>										
Core Loss (maximum)	459	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: $a=1.000E-02$ , $b=2.600E-07$ , $c=1.557$ , $d=0.000$												
	$H_{DC}$	200	Oe										
	Percent Initial Perm(nom.)	90.9	%										
Percent Initial Perm(min.)	88.3	%											
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy											
	Voltage Breakdown (min.)	1000 Vrms											
	Limit	0.1 mA, 5 s											
	Package Quantity	420 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	14	18	22	29	36	46	58	73	91	114	142
		Rdc(Ω)	1.3 m	2.6 m	5.0 m	10.5 m	20.6 m	41.9 m	84.1 m	168.3 m	333.7 m	664.9 m	1.3
<b>Full Winding</b>	Turns	15	24	37	57	88	136	211	326	504	780	1,208	
	Rdc(Ω)	1.3 m	3.4 m	8.4 m	20.5 m	50.4 m	124.0 m	305.9 m	751.8 m	1.8	4.5	11.2	

