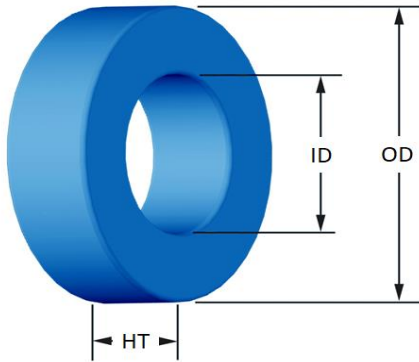




Part Number: **SM-200060-2**

Revision: 2023-Dec-06



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

	mm	in											
OD	(nom. - bare core) 50.80 (max.) 51.69	2.000 2.035											
ID	(nom. - bare core) 31.75 (min.) 30.94	1.250 1.218											
HT	(nom. - bare core) 13.46 (max.) 14.35	0.530 0.565											
Mass	(approximate)	110 grams											
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	1.25	cm ²										
	L_e - Eff. Mag. Path Length	12.733	cm										
	V_e - Eff. Core Volume	15.9	cm ³										
	W_A - Min. Eff. Window Area	7.52	cm ²										
	s_a - Surface Area	88.2	cm ²										
	m_{lt} - mean length per turn	6.49	cm										
Inductance	μ_i (reference)	60											
	A_L value (nominal)	73	nH/N ²										
	Test Winding	70 Turns	AWG# 18										
	Frequency	10k	Hz										
	Voltage on Agilent 4284A	0.39	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: $a=1.000E+06$, $b=9.109E+08$, $c=1.221E+07$, $d=1.096E-14$												
	B_{pk}	1000	G										
	frequency	50 k	Hz										
	Core Loss (nominal)	226	mW/cm ³										
Core Loss (maximum)	260	mW/cm ³											
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: $a=1.000E-02$, $b=9.058E-07$, $c=1.903$, $d=0.000$												
	H_{DC}	100	Oe										
	Percent Initial Perm(nom.)	63.3	%										
Percent Initial Perm(min.)	54.9	%											
Coating/Pkg	Coating Type:	Blue Epoxy											
	Voltage Breakdown (min.)	1000 Vrms											
	Limit	0.1 mA, 5 s											
	Package Quantity	60 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	23	30	38	48	60	75	94	118	148	184	230
		Rdc(Ω)	3.1 m	6.4 m	12.8 m	25.8 m	51.2 m	101.9 m	203.0 m	405.4 m	808.6 m	1.6	3.2
	Full Winding	Turns	39	61	94	146	226	350	541	837	1,296	2,006	3,104
	Rdc(Ω)	5.2 m	12.9 m	31.7 m	78.4 m	193.0 m	475.3 m	1.2	2.9	7.1	17.4	42.9	

