



Part Number: MS-027090-8
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OD	(nom. - bare core) (max. - after coating)	6.60 mm 7.24 mm	0.260 in 0.285 in
ID	(nom. - bare core) (min. - after coating)	2.67 mm 2.29 mm	0.105 in 0.090 in
Ht	(nom. - bare core) (max. - after coating)	2.54 mm 3.18 mm	0.100 in 0.125 in
Mass	(approximate)	0.38 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0467 cm ²	
	L _e - Eff. Mag. Path Length	1.36 cm	
	V _e - Eff. Core Volume	0.0640 cm ³	
	WA - Min. Eff. Window Area	0.0410 cm ²	
	sa - Surface Area	1.83 cm ²	
	mlt - mean length per turn	1.25 cm	
Inductance	μ _i (reference)	90	
	A _L value (nominal)	39 nH/N ²	
	Test Winding	N=35, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.007 V	
	AL tolerance	±12%	
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=7.890E+09, b=7.111E+08, c=8.980E+06, d=2.846E-14		
	B _{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	323 mW/cm ³	
Core Loss (maximum)	372 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=3.994E-06, c=1.883, d=0.000		
	H _{DC}	50 Oe	
	Percent Initial Perm.(nom.)	61.3%	
Percent Initial Perm.(min.)	52.9%		
Coating/Pkg	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	21,600 Pcs/Box	

Winding Table	Wire Size	AWG	26	28	30	32	34	36	38	40	42	44	-
		mm	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	-
	Single Layer	Turns	11	14	19	24	30	38	49	61	77	96	-
		Rdc(Ω)	18.3 m	37.1 m	80.1 m	160.9 m	319.9 m	644.5 m	1.3	2.6	5.3	10.4	-
Full Winding	Turns	11	17	26	41	63	98	151	234	362	560	-	
	Rdc(Ω)	18.3 m	45.1 m	109.6 m	274.9 m	671.8 m	1.7	4.1	10.0	24.7	60.8	-	

