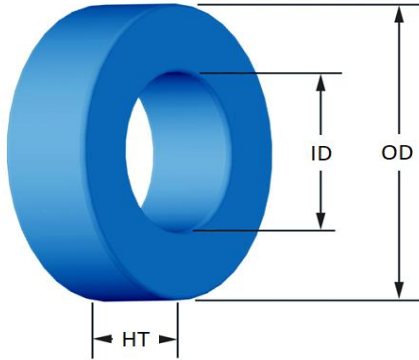




Part Number: **OD-107090-2**

Revision: 2023-Dec-06



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

	mm	in												
<b>OD</b>	(nom. - bare core) 26.92 (max.) 27.69	1.060 1.090												
<b>ID</b>	(nom. - bare core) 14.73 (min.) 14.10	0.580 0.555												
<b>HT</b>	(nom. - bare core) 8.64 (max.) 9.45	0.340 0.372												
<b>Mass</b>	(approximate) 23	grams												
<b>Magnetic Dimensions</b>	$A_e$ - Eff. Mag. Cross Section 0.497	cm <sup>2</sup>												
	$L_e$ - Eff. Mag. Path Length 6.35	cm												
	$V_e$ - Eff. Core Volume 3.16	cm <sup>3</sup>												
	WA - Min. Eff. Window Area 1.56	cm <sup>2</sup>												
	sa - Surface Area 26.3	cm <sup>2</sup>												
	mlt - mean length per turn 3.95	cm												
<b>Inductance</b>	$\mu_i$ (reference) 90													
	$A_L$ value (nominal) 88.4	nH/N <sup>2</sup>												
	Test Winding 80 Turns	AWG# 26												
	Frequency 10k	Hz												
	Voltage on Agilent 4284A 0.18	V												
	AL tolerance ±8%													
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$ <p>where <math>B_{pk}</math> expressed in gauss, <math>f</math> expressed in hertz, and:  <math>a=1.000E+06</math>, <math>b=7.629E+08</math>, <math>c=4.688E+06</math>, <math>d=4.273E-14</math></p> <table border="1"> <tr><td><math>B_{pk}</math></td><td>1000</td><td>G</td></tr> <tr><td>frequency</td><td>50 k</td><td>Hz</td></tr> <tr><td>Core Loss (nominal)</td><td>443</td><td>mW/cm<sup>3</sup></td></tr> <tr><td>Core Loss (maximum)</td><td>510</td><td>mW/cm<sup>3</sup></td></tr> </table>		$B_{pk}$	1000	G	frequency	50 k	Hz	Core Loss (nominal)	443	mW/cm <sup>3</sup>	Core Loss (maximum)	510	mW/cm <sup>3</sup>
$B_{pk}$	1000	G												
frequency	50 k	Hz												
Core Loss (nominal)	443	mW/cm <sup>3</sup>												
Core Loss (maximum)	510	mW/cm <sup>3</sup>												
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ <p>where H expressed in oersteds, and:  <math>a=1.000E-02</math>, <math>b=4.343E-07</math>, <math>c=2.124</math>, <math>d=0.000</math></p> <table border="1"> <tr><td><math>H_{DC}</math></td><td>50</td><td>Oe</td></tr> <tr><td>Percent Initial Perm.(nom.)</td><td>85.0</td><td>%</td></tr> <tr><td>Percent Initial Perm.(min.)</td><td>79.4</td><td>%</td></tr> </table>		$H_{DC}$	50	Oe	Percent Initial Perm.(nom.)	85.0	%	Percent Initial Perm.(min.)	79.4	%			
$H_{DC}$	50	Oe												
Percent Initial Perm.(nom.)	85.0	%												
Percent Initial Perm.(min.)	79.4	%												
<b>Coating/Pkg</b>	Coating Type: Blue Epoxy Voltage Breakdown (min.) 1000 Vrms Limit 0.1 mA, 5 s Package Quantity 630 Pcs/Box													

Winding Table	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
Single Layer	Turns	12	16	20	26	33	41	52	66	82	103	129	
	Rdc(Ω)	1.6 m	3.3 m	6.5 m	13.5 m	27.3 m	53.9 m	108.8 m	219.6 m	433.9 m	866.9 m	1.7	
Full Winding	Turns	13	20	30	47	73	112	174	269	417	645	998	
	Rdc(Ω)	1.7 m	4.1 m	9.8 m	24.4 m	60.4 m	147.3 m	364.0 m	895.1 m	2.2	5.4	13.4	

