



**Part Number:** **FS-250075-2**

Revision 20190529 - Generated 2019-May-29



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

<b>OD</b>	(nom. - bare core)	63.50 mm	2.500 in
	(max.)	64.77 mm	2.550 in
<b>ID</b>	(nom. - bare core)	31.37 mm	1.235 in
	(min.)	30.48 mm	1.200 in
<b>HT</b>	(nom. - bare core)	25.00 mm	0.984 in
	(max.)	25.90 mm	1.020 in
<b>Mass</b>	(approximate)	380 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	3.89 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	14.314 cm	
	V <sub>e</sub> - Eff. Core Volume	55.8 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	7.30 cm <sup>2</sup>	
	sa - Surface Area	150 cm <sup>2</sup>	
	mlt - mean length per turn	10.1 cm	
	<b>Inductance</b>	μ <sub>i</sub> (reference)	75
<b>Core Loss</b>	A <sub>L</sub> value (nominal)	258 nH/N <sup>2</sup>	
	Test Winding	N=100, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	1.7 V	
	AL tolerance	±8%	
	Core Loss(mW/cm <sup>3</sup> )= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
<b>DC Saturation</b>	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.883E+08, b=5.098E+08, c=1.162E+06, d=5.024E-14		
	B <sub>pk</sub>	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	772 mW/cm <sup>3</sup>	
	Core Loss (maximum)	887 mW/cm <sup>3</sup>	
<b>DC Saturation</b>	%μ <sub>i</sub> = $\frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=3.486E-06, c=1.682, d=0.000		
	H <sub>DC</sub>	80 Oe	
	Percent Initial Perm(nom.)	64.4%	
<b>Coating/Pkg</b>	Percent Initial Perm(min.)	57.1%	
	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
<b>Winding Table</b>	Package Quantity	27 Pcs/Box	
	Wire Size	AWG	8 10 12 14 16 18 20 22 24 26 28
<b>Winding Table</b>		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	23 29 37 47 59 74 93 116 145 182 227
		Rdc(Ω)	4.8 m 9.6 m 19.5 m 39.4 m 78.6 m 156.9 m 313.5 m 622.0 m 1.2 2.5 4.9
	<b>Full Winding</b>	Turns	38 59 91 142 219 339 525 813 1,258 1,947 3,013
Rdc(Ω)		7.9 m 19.6 m 48.0 m 119.0 m 291.9 m 718.6 m 1.8 4.4 10.7 26.4 65.0	

