

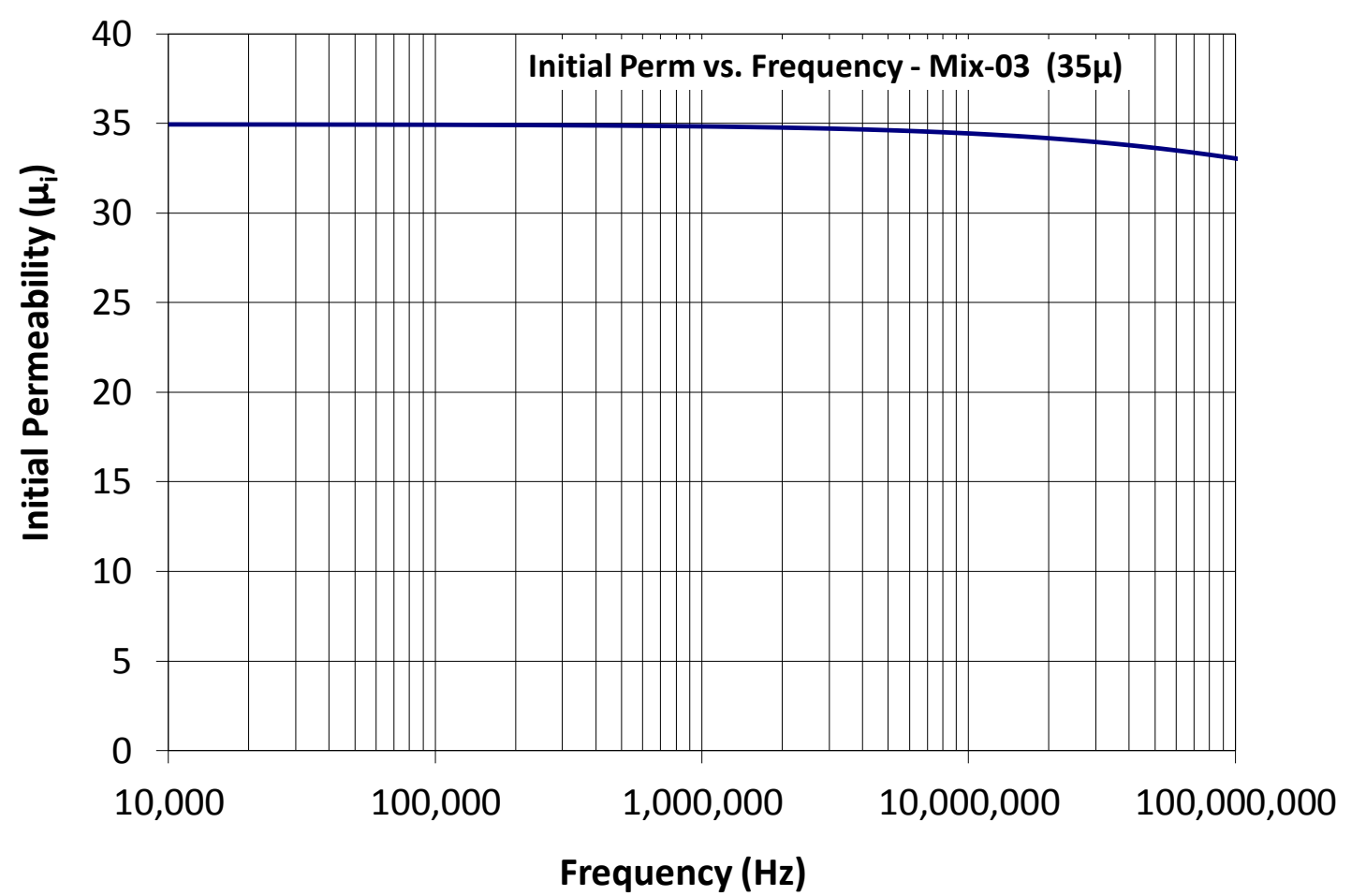
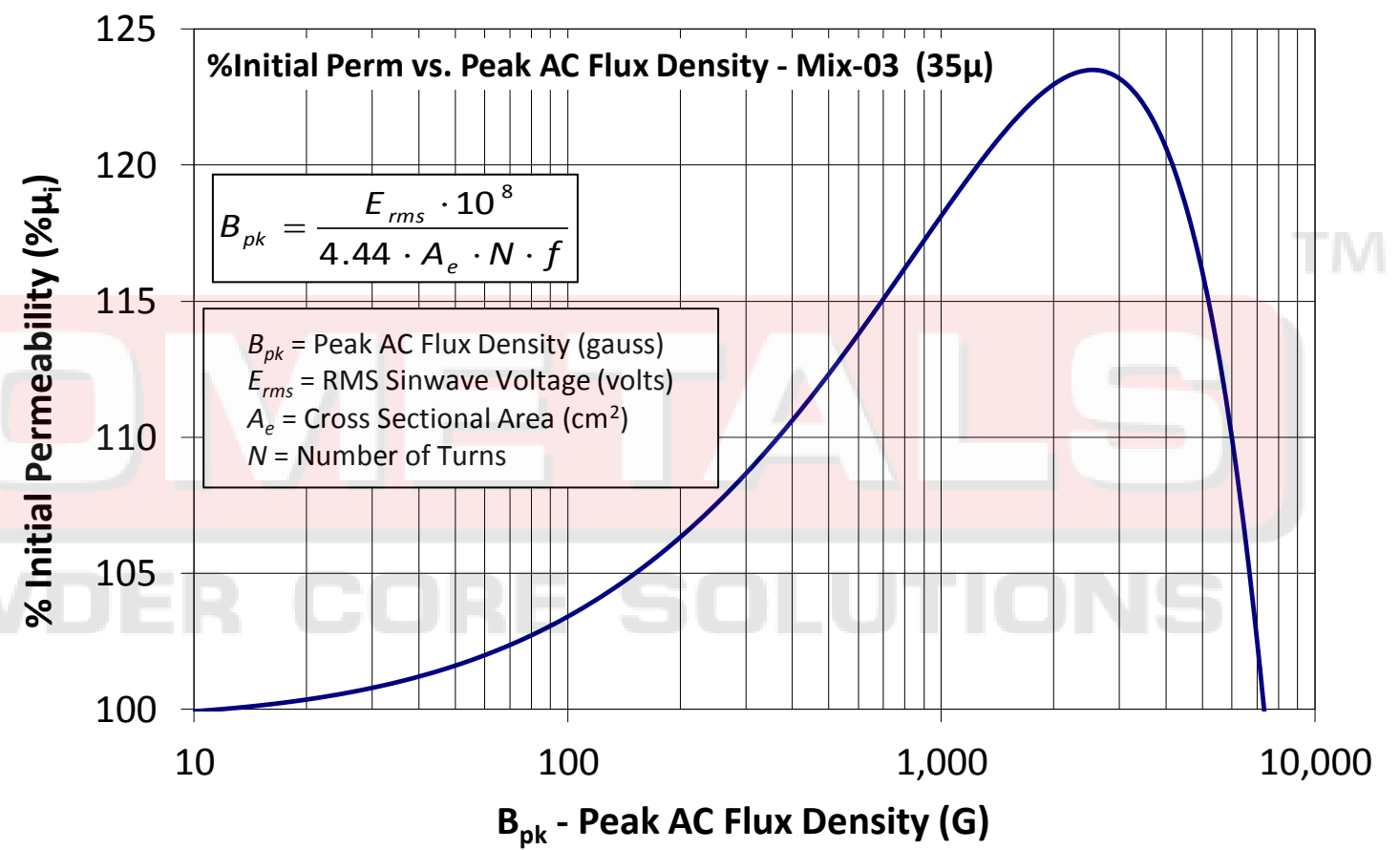
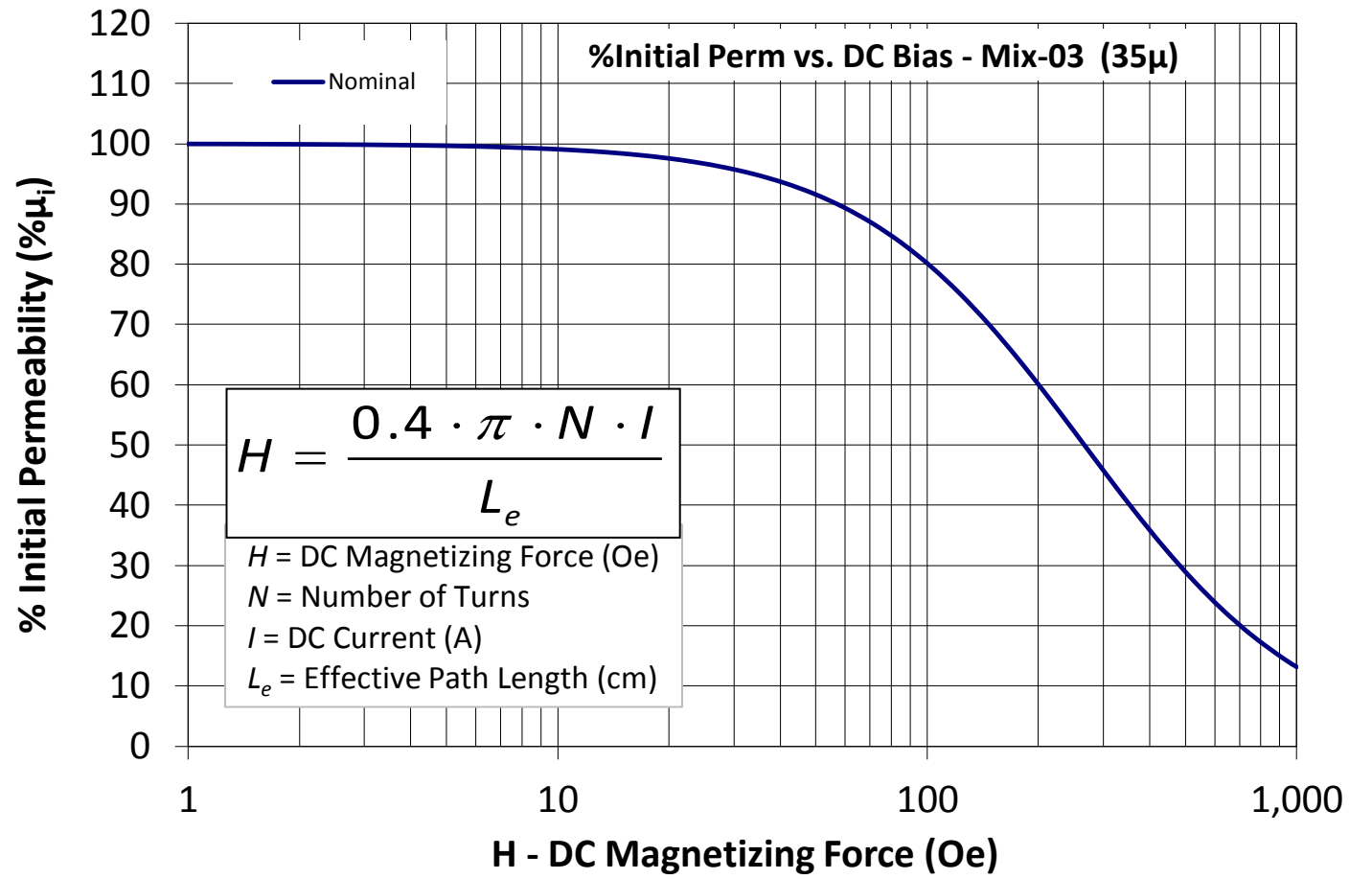
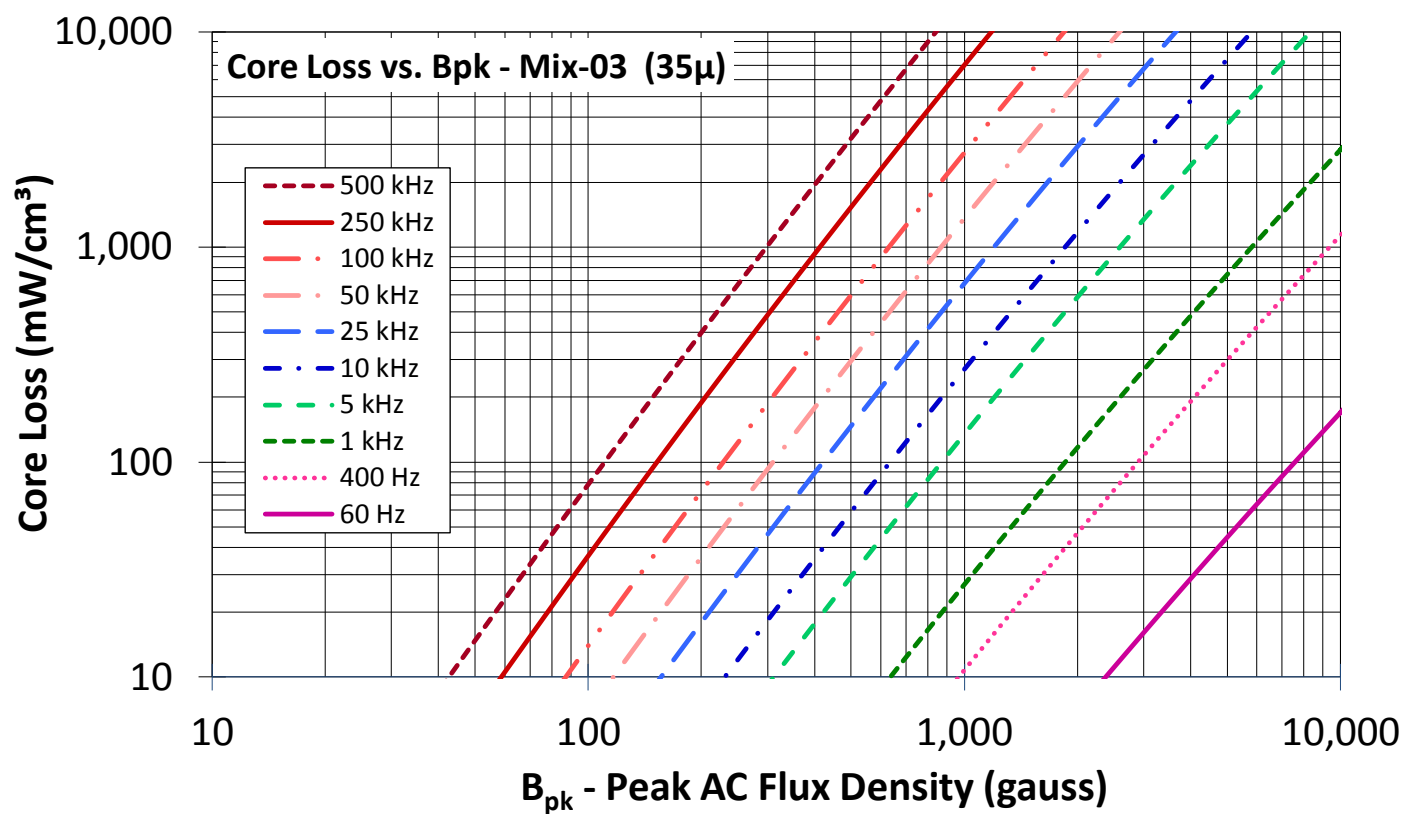


**Part Number:** T50-3

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	12.70 mm 13.21 mm	0.500 in 0.520 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	7.70 mm 7.19 mm	0.303 in 0.283 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	4.83 mm 5.33 mm	0.190 in 0.210 in
<b>Mass</b>	(approximate)	2.3 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.112 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	3.19 cm	
	V <sub>e</sub> - Eff. Core Volume	0.358 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.406 cm <sup>2</sup>	
	sa - Surface Area	6.44 cm <sup>2</sup>	
	mlt - mean length per turn	2.03 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	35	
	A <sub>L</sub> value (nominal)	17.5 nH/N <sup>2</sup>	
	Test Winding	N=100, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.050 V	
A <sub>L</sub> tolerance	±10%		
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.90E+09, b=2.00E+08, c=9.00E+05, d=4.30E-15		
	B <sub>pk</sub>	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	31 mW/cm <sup>3</sup>	
Core Loss (maximum)	36 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=1.00E-02, b=3.49E-06, c=1.43, d=0.00		
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm(nom.)	60.1%	
Percent Initial Perm(min.)	53.7%		
<b>Coating/Pkg</b>	Coating Type:	Gray/Clear Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	6,000 Pcs/Box	



<b>Winding Table</b>	<b>Wire Size</b>	AWG	16	18	20	22	24	26	28	30	32	34	36
		mm	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125
	<b>Single Layer</b>	Turns	12	15	20	25	32	41	51	64	81	101	127
		Rdc(Ω)	3.2 m	6.4 m	13.5 m	26.8 m	54.6 m	111.3 m	220.2 m	439.4 m	884.5 m	1.8	3.5
<b>Full Winding</b>	Turns	12	19	29	45	70	108	168	259	401	621	962	
	Rdc(Ω)	3.2 m	8.1 m	19.6 m	48.3 m	119.5 m	293.2 m	725.3 m	1.8	4.4	10.8	26.6	