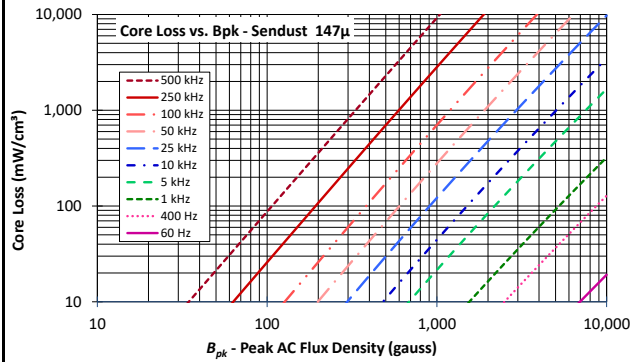




Material: Sendust 147μ Toroid

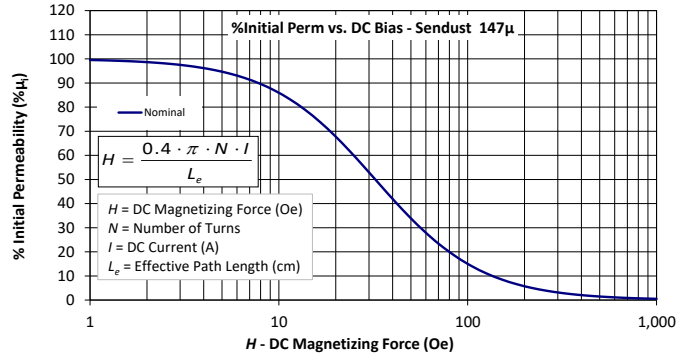
Revision 20200519 - Generated 2020-May-26

μi (reference)	147
Typical AL tolerance	± 8%
Density	5.9 g/cm ³
Bsat	9.0 kG
Core Loss (50kHz, 1000g)	279 mW/cm ³ (nom) 321 mW/cm ³ (max)
	42.0% (nom)
%Perm at DC Bias (40 Oe)	35.3% (min)



$$\text{Core Loss (mW/cc)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$$

where B_{pk} expressed in gauss, f in hertz, and:
 $a=5.176E+08$, $b=1.028E+09$, $c=9.893E+06$, $d=2.852E-14$

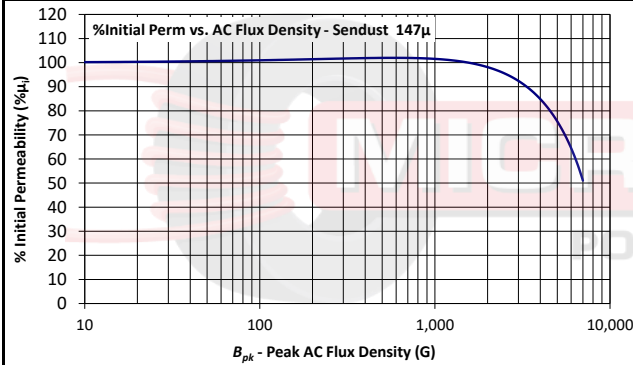


$$H = \frac{0.4 \cdot \pi \cdot N \cdot I}{L_e}$$

H = DC Magnetizing Force (Oe)
 N = Number of Turns
 I = DC Current (A)
 L_e = Effective Path Length (cm)

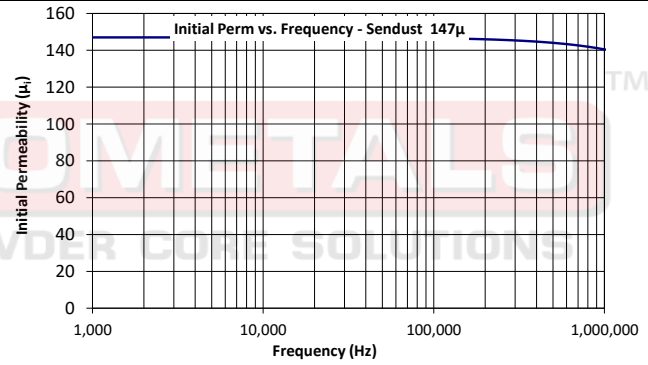
$$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$$

where H expressed in oersted, and:
 $a=1.000E-02$, $b=4.732E-05$, $c=1.539E+00$, $d=0.000E+00$



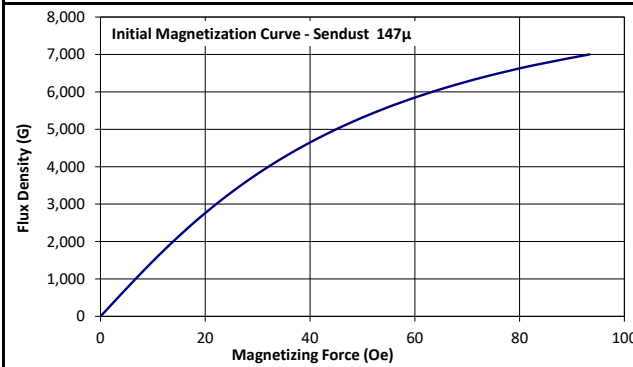
$$\% \mu_i = \frac{1}{\frac{1}{a + bB^c} + \frac{1}{dB^e} + \frac{1}{f}}$$

where B_{pk} expressed in gauss, and:
 $a=1.764E+03$, $b=5.859E-01$, $c=1.386E+00$, $d=4.067E+09$, $e=-1.914E+00$, $f=1.060E+02$



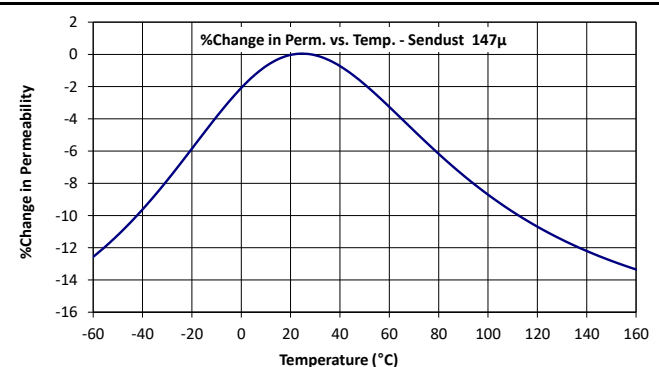
$$\mu_i = \frac{1}{a + bf^c} + d$$

where f expressed in hertz, and:
 $a=6.803E-03$, $b=3.017E-11$, $c=1.170E+00$, $d=0.000E+00$



$$B_{pk} = \frac{\mu_i}{\frac{1}{H + aH^b} + \frac{1}{cH^d} + \frac{1}{e}}$$

where B_{pk} expressed in gauss, H in oersted, and:
 $a=2.911E-02$, $b=1.834E+00$, $c=2.003E+09$, $d=1.000E-08$, $e=6.138E+01$



$$\left(\frac{\Delta \mu_i}{\mu_i} \right) = \frac{a + cT + eT^2}{1 + bT + dT^2}$$

where T expressed in celsius, and:
 $a=-2.082E+00$, $b=-5.546E-03$, $c=1.725E-01$, $d=1.828E-04$, $e=-3.496E-03$