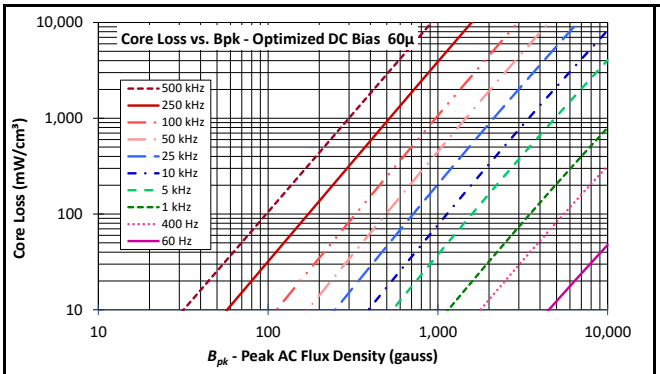
Material:	Optimized DC Bias 60µ Toroid

Revision 20200519 - Generated 2020-May-26

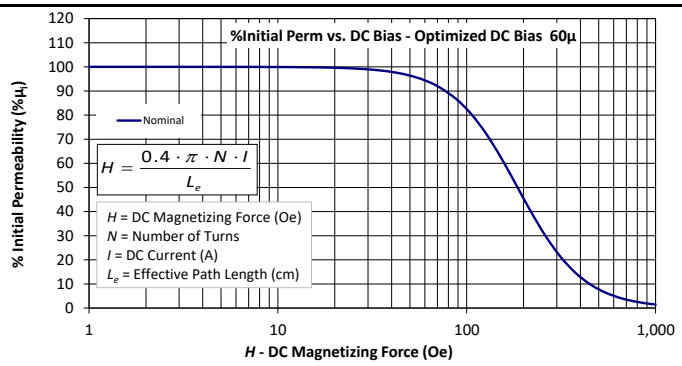
µi (reference)	060
Typical AL tolerance	± 8%
Density	7.0 g/cm³
Bsat	16.4 kG
Core Loss (50kHz, 1000g)	450 mW/cm³ (nom) 517 mW/cm³ (max)
%Perm at DC Bias (100 Oe)	82.5% (nom) 74.9% (min)



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

where B_{pk} expressed in gauss, f in hertz, and:

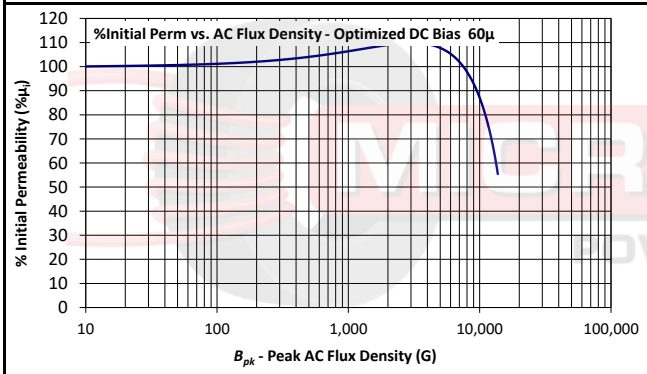
a=1.000E+06, b=8.154E+08, c=2.976E+06, d=3.292E-14



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

where H expressed in oersted, and:

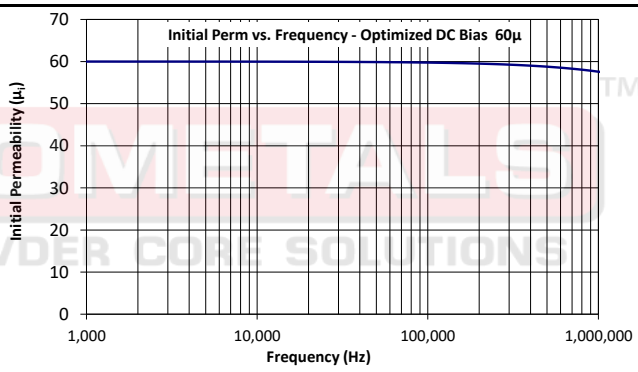
a=1.000E-02, b=2.111E-08, c=2.501E+00, d=0.000E+00



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

where B_{pk} expressed in gauss, and:

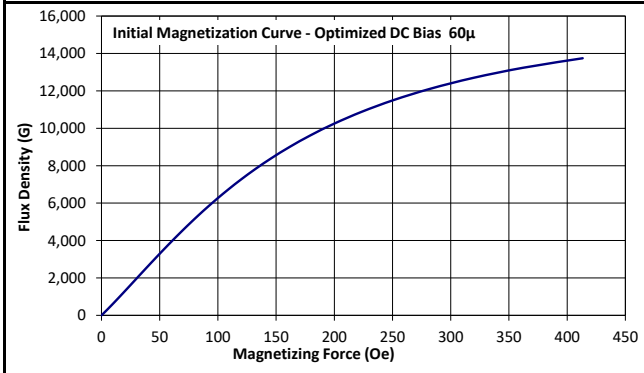
a=8.767E+02, b=6.069E-01, c=1.079E+00, d=2.543E+09, e=-1.752E+00, f=1.129E+02



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

where f expressed in hertz, and:

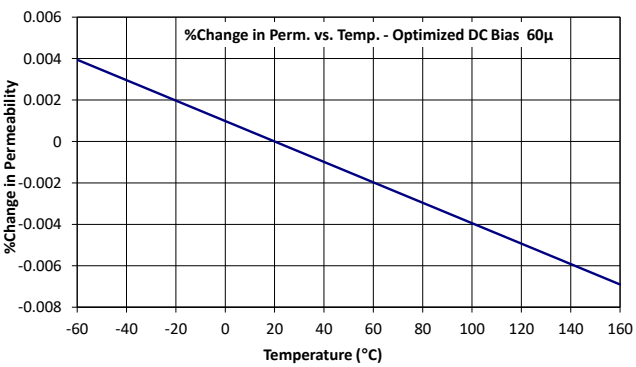
a=1.667E-02, b=6.059E-10, c=1.010E+00, d=0.000E+00



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

where B_{pk} expressed in gauss, H in oersted, and:

a=1.147E-02, b=1.891E+00, c=2.006E+04, d=2.633E+00, e=2.728E+02



$$\%\left(\frac{\Delta\mu_i}{\mu_i}\right) = a(T - 20) * 0.0001$$

where T expressed in celsius, and:

a=-4.930E-01, b=-7.252E-03, c=3.681E-02, d=2.183E-04, e=-6.097E-04

Micrometals Arnold Powder Cores, A Division of Micrometals, Inc. - 5615 E. La Palma Ave., Anaheim, California 92807 USA
Ph: +1-714-970-9400, Toll Free in USA: +1-800-356-5977, Asia Pacific Sales: +852 3106 3736
www.MicrometalsArnoldPowderCores.com