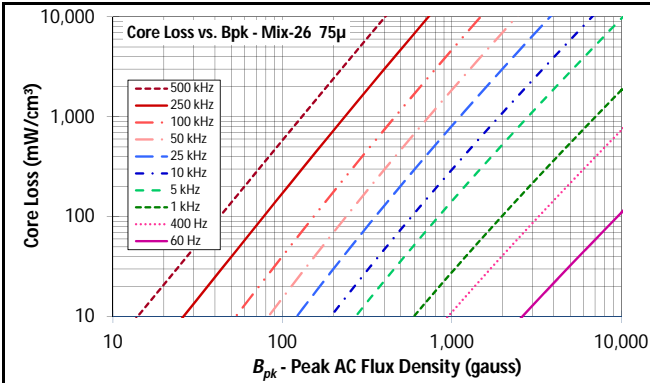




**Mix: -26**

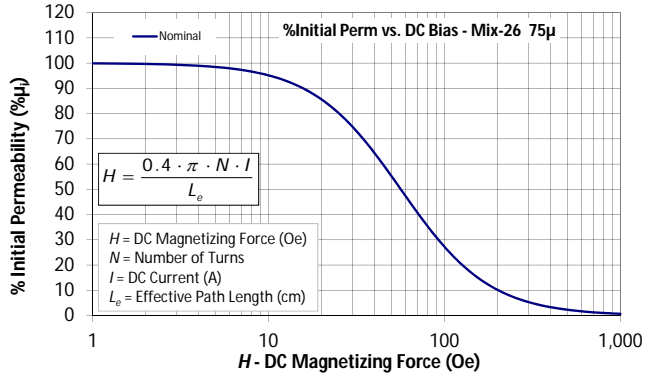
Revision 20160422 - Generated 2016-Apr-28

$\mu$ (reference)	75
Color Code	Yellow/White
Density	7.0 g/cm <sup>3</sup>
Bsat	18.5kG
Core Loss (100kHz, 140g)	83 mW/cm <sup>3</sup> (nom) 95 mW/cm <sup>3</sup> (max)
%Perm at DC Bias (50 Oe)	55.2% (nom) 47.4% (min)



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

where  $B_{pk}$  expressed in gauss,  $f$  expressed in hertz, and:  
 $a=1.00E+09$ ,  $b=1.10E+08$ ,  $c=1.90E+06$ ,  $d=1.90E-13$

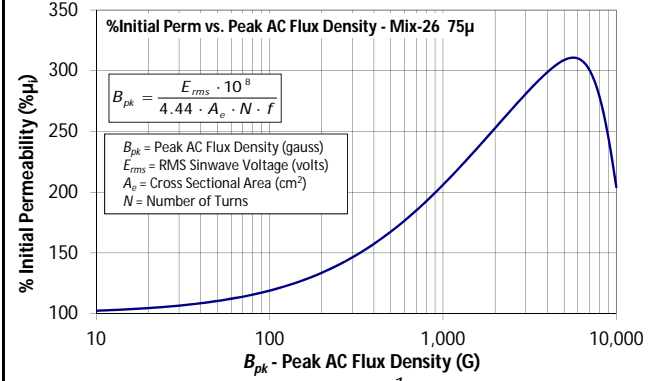


$$H = \frac{0.4 \cdot \pi \cdot N \cdot I}{L_e}$$

$H$  = 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 oersteds, and:  
 $a=1.00E-02$ ,  $b=9.70E-06$ ,  $c=1.72$ ,  $d=0.00$

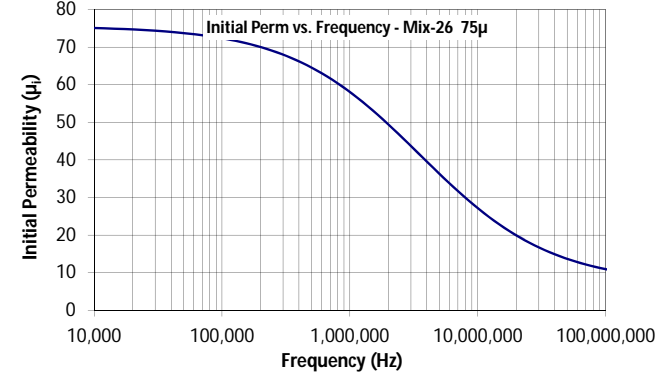


$$B_{pk} = \frac{E_{rms} \cdot 10^8}{4.44 \cdot A_e \cdot N \cdot f}$$

$B_{pk}$  = Peak AC Flux Density (gauss)  
 $E_{rms}$  = RMS Sinwave Voltage (volts)  
 $A_e$  = Cross Sectional Area (cm<sup>2</sup>)  
 $N$  = Number of Turns

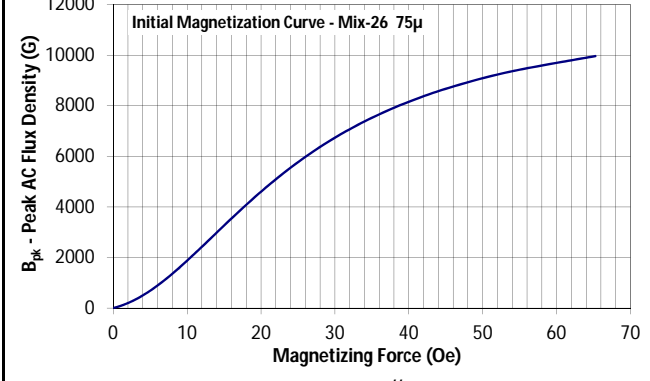
$$\% \mu_i = \frac{1}{a + bB_{pk}^c + \frac{1}{dB_{pk}^e} + \frac{1}{f}}$$

where  $B_{pk}$  expressed in gauss, and:  
 $a=1.32E+02$ ,  $b=5.71E-01$ ,  $c=8.96E-01$ ,  $d=1.45E+23$ ,  $e=-5.12E+00$ ,  $f=4.14E+02$



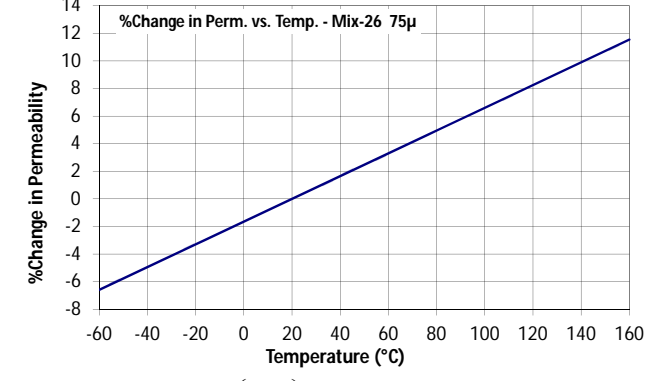
$$\mu_i = \frac{1}{a + bf^c} + d$$

where  $f$  expressed in hertz, and:  
 $a=1.46E-02$ ,  $b=4.13E-08$ ,  $c=8.47E-01$ ,  $d=7.15E+00$



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

where  $B_{pk}$  expressed in gauss,  $H$  in oested, and:  
 $a=1.66E-01$ ,  $b=2.09E+00$ ,  $c=2.35E+02$ ,  $d=1.20E-01$ ,  $e=2.47E+02$



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

where  $T$  expressed in celsius, and:  
 $a=825$