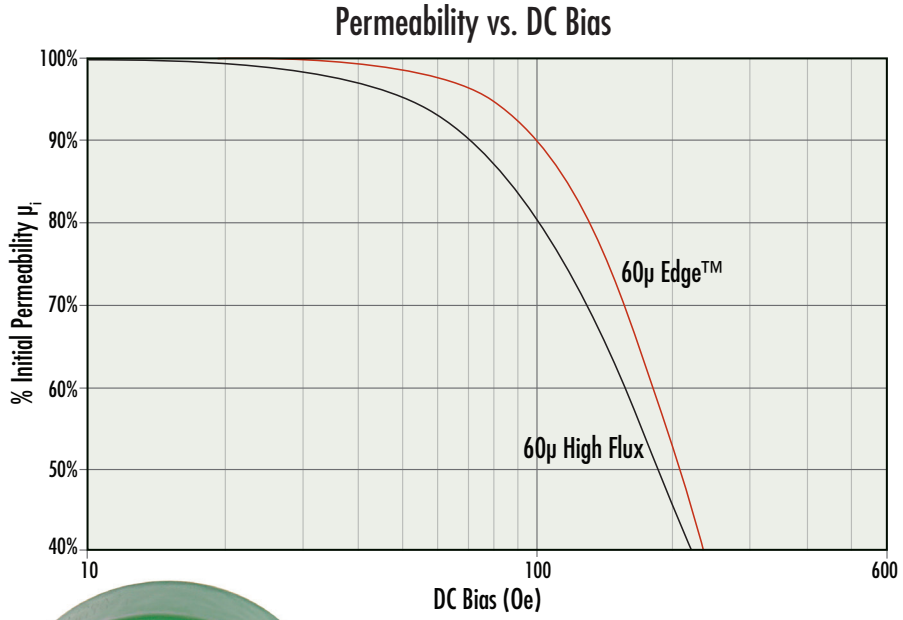
Edge™ Powder Cores

Designed for cutting edge performance, Edge™ cores offer the highest efficiency and best DC bias performance of all alloy powder cores. When compared with High Flux, Edge displays approximately 40% lower losses and 30% improvement in DC bias. Edge is the choice material for telecom servers or high density rack mount power supplies.

Available in 26, 60 and 125 permeabilities.

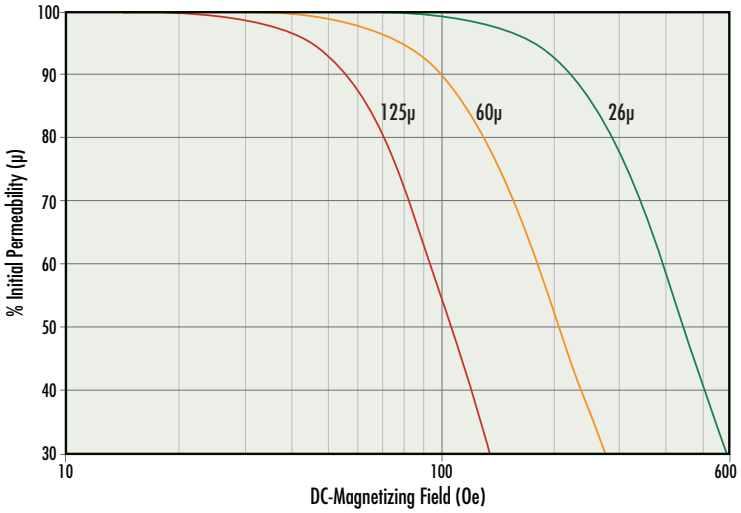


Material	Alloy Composition	DC Bias	Core Loss	Relative Cost	Saturation Flux Density (Tesla)	Curie Temperature	60µ Maximum Usable Frequency
Edge	**FeNi**	**Highest**	**Very Low**	**High**	**1.5**	**500°C**	**20 MHz**
High Flux	FeNi	High	Moderate	High	1.5	500°C	3 MHz
XFlux®	FeSi	High	High	Low	1.6	700°C	1.5 MHz
Kool Mµ® MAX	FeSiAl	Moderate	Low	Medium	1.0	500°C	15 MHz
Kool Mµ® H*f*	FeSiAl	Moderate	Lowest	Medium	1.0	500°C	30 MHz
MPP	FeNiMo	Moderate	Very Low	Highest	0.8	460°C	6 MHz
Kool Mµ®	FeSiAl	Moderate	Low	Lowest	1.0	500°C	5 MHz

Permeability vs. DC Bias

$$\frac{\mu}{\mu_i} \times 100 = \frac{1}{(a + bH^c)}$$

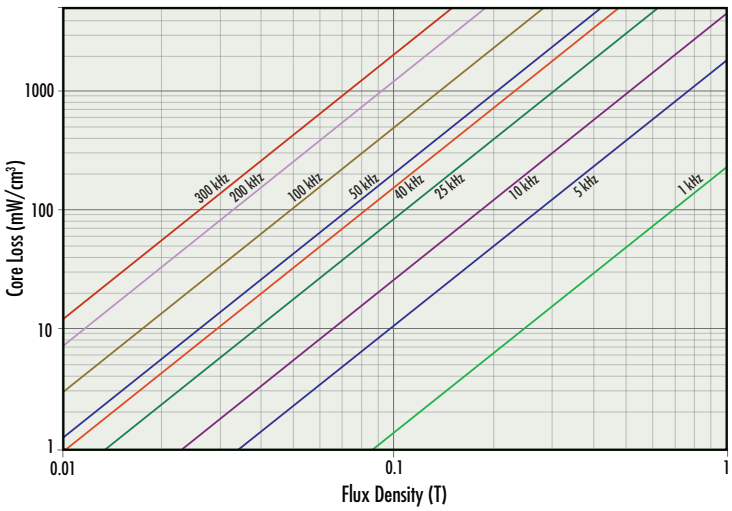
	a	b	c
26µ	0.01	3.65E-11	3.192
60µ	0.01	9.20E-10	3.044
125µ	0.01	1.23E-09	3.419



26µ Core Loss Density

$P = a(B^b)(f^c)$
(B in Tesla, f in kHz)

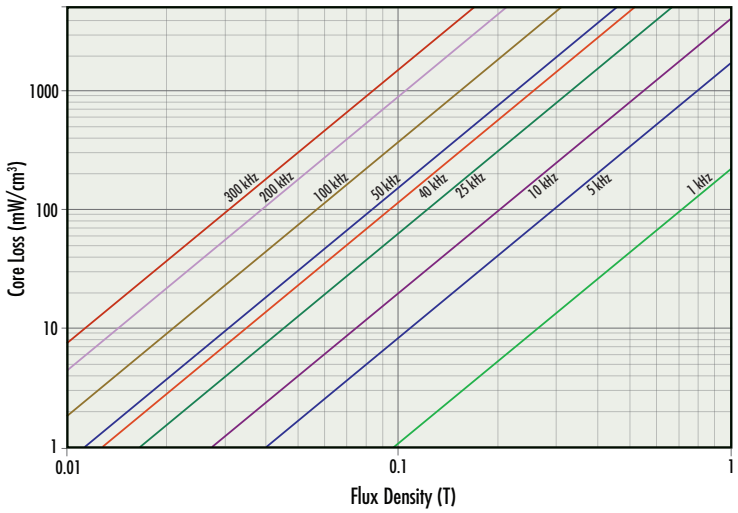
	a	b	c
26µ	227.54	2.209	1.27



60µ Core Loss Density

$P = a(B^b)(f^c)$
(B in Tesla, f in kHz)

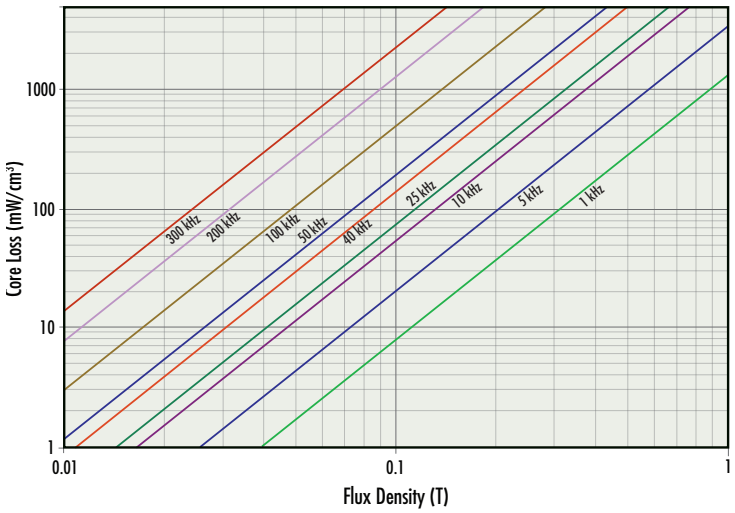
	a	b	c
60µ	211.51	2.309	1.28



125µ Core Loss Density

$P = a(B^b)(f^c)$
(B in Tesla, f in kHz)

	a	b	c
125µ	142.54	2.218	1.38



DC Magnetization

$$B = \left[\frac{a + bH + cH^2}{1 + dH + eH^2}\right]^x$$ Units: B in Tesla, H in Oe

Perm	a	b	c	d	e	x
26µ	9.881E-02	4.291E-01	6.528E-03	8.473E-01	5.639E-03	4.997
60µ	1.955E-01	3.078E-02	1.020E-03	8.346E-02	7.333E-04	2.462
125µ	2.040E-01	3.034E-02	1.140E-03	5.423E-02	7.748E-04	2.234E+00

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