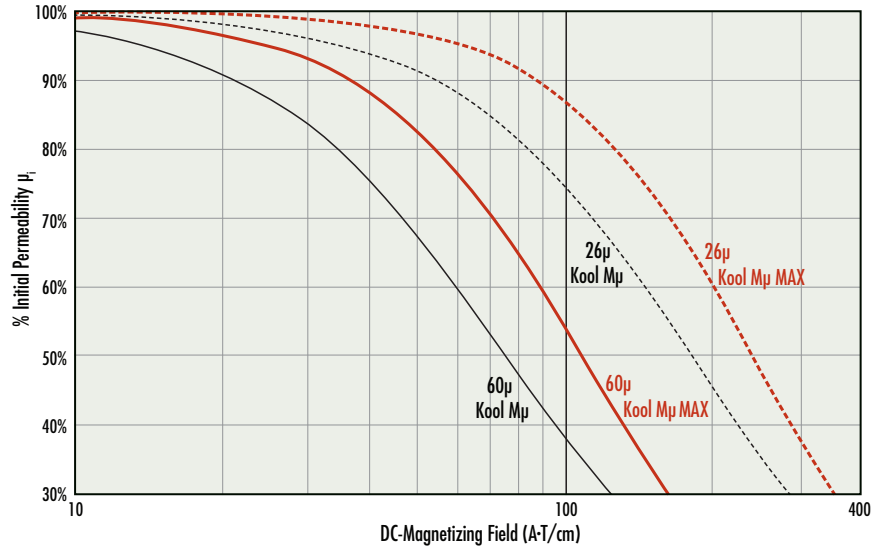




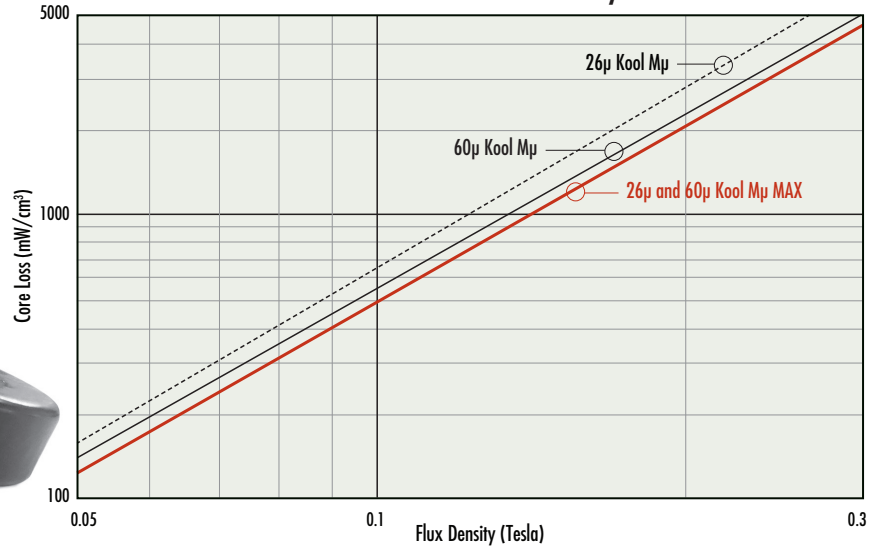
Kool M μ [®] MAX Powder Cores

Kool M μ [®] MAX is the next generation of sendust cores from Magnetics[®], available in permeabilities 26 μ and 60 μ and in sizes 13.5mm OD through 134mm OD. We supercharged our low core loss Kool M μ material with 50% more DC bias for better power handling. Kool M μ MAX reduces copper cost by reducing turns needed to maintain inductance, minimizes temperature rise, and maximizes inductor output. With Kool M μ MAX you can improve inductor efficiency at a fraction of the cost of High Flux.

Permeability vs. DC Bias



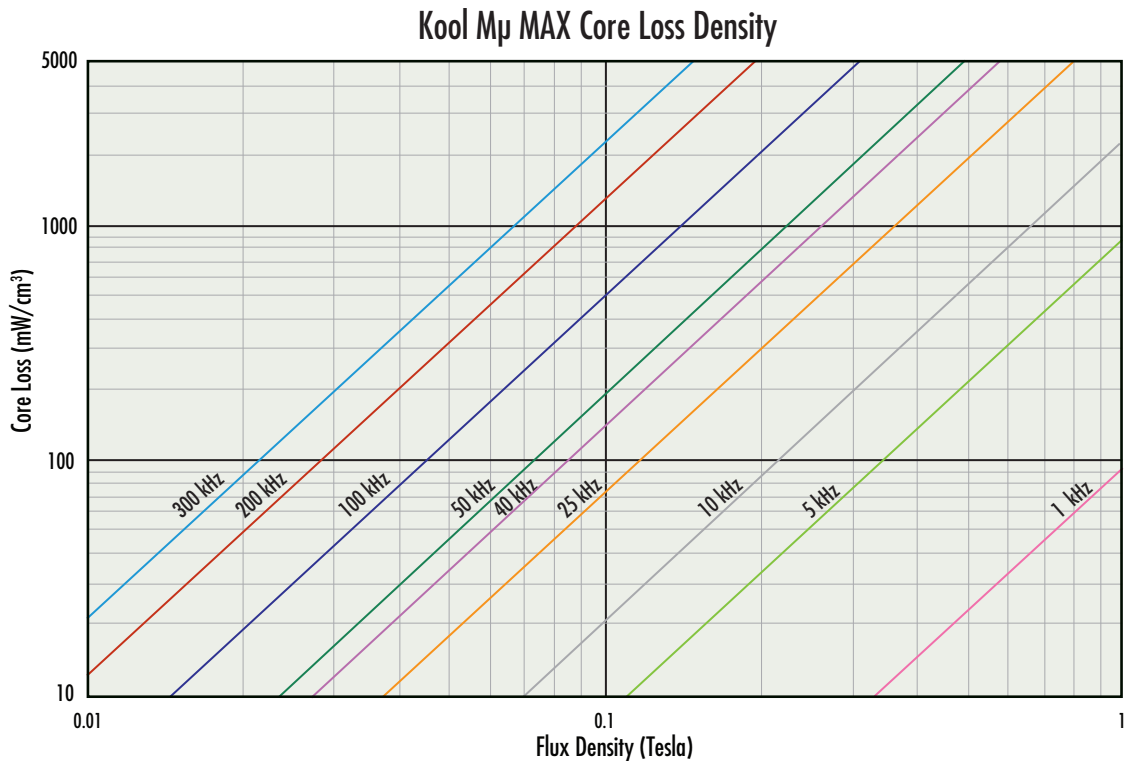
100 kHz Core Loss Density



| Material | Alloy Composition | DC Bias | Core Loss | Relative Cost | Saturation Flux Density (Tesla) | Curie Temperature | Operating Temp. Range | 60 μ μ flat to... |
|---|-------------------|-------------|-----------------|---------------|---------------------------------|-------------------|-----------------------|---------------------------|
| XFlux [®] | FeSi | Highest | High | Low | 1.6 | 700°C | -55 to 200°C | 500 kHz |
| High Flux | FeNi | Highest | Moderate | High | 1.5 | 500°C | -55 to 200°C | 1 MHz |
| 75-Series | FeSiAl | High | Moderate | Low | 1.5 | 700°C | -55 to 200°C | 500 kHz |
| Kool Mμ[®] MAX | FeSiAl | High | Very Low | Medium | 1.0 | 500°C | -55 to 200°C | 900 kHz |
| MPP | FeNiMo | High | Very Low | Highest | 0.8 | 460°C | -55 to 200°C | 2 MHz |
| Kool M μ [®] | FeSiAl | Moderate | Low | Low | 1.0 | 500°C | -55 to 200°C | 900 kHz |
| Iron Powder | Fe | Moderate | Highest | Lowest | 1.2 - 1.5 | 770°C | -30 to 75°C | 500 kHz |
| Ferrite | Ceramic | Low | Lowest | Lowest | 0.45 | 100 - 250°C | Variable | Variable |

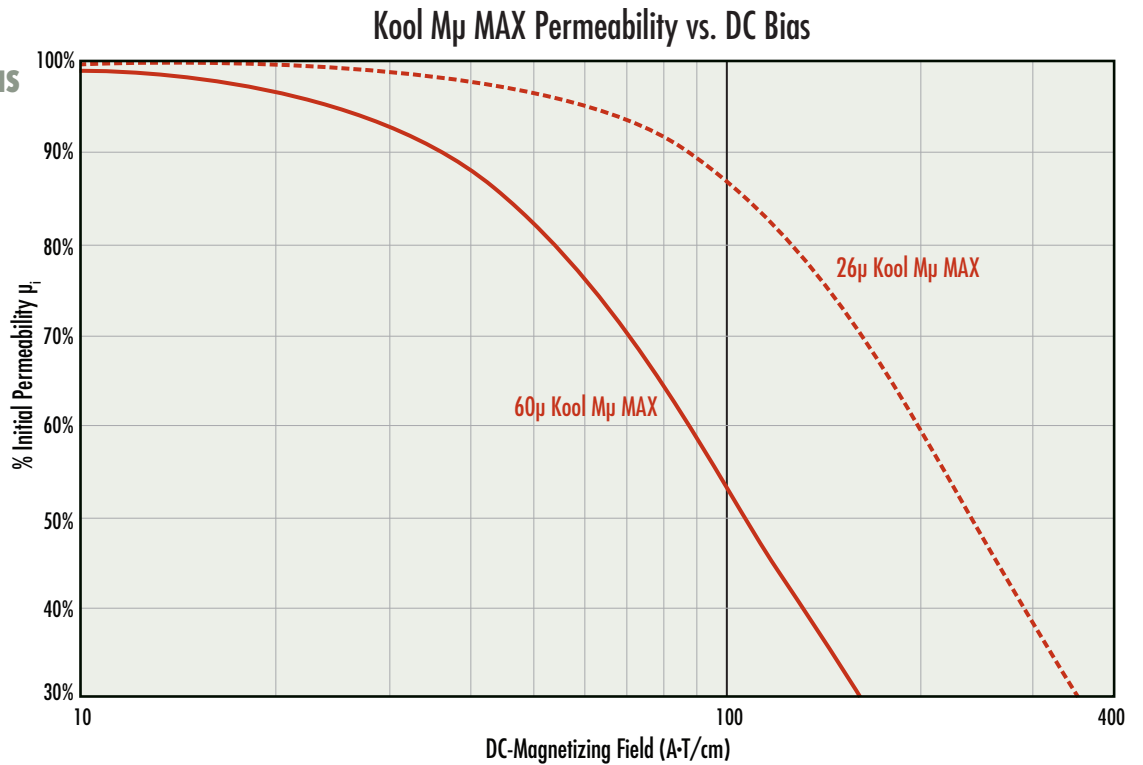
Core Loss Density

| | | |
|-------------------|-------|-------|
| $P = a(B^b)(f^c)$ | | |
| a | b | c |
| 91.616 | 2.039 | 1.388 |



Permeability vs. DC Bias

| | | | |
|--|------|----------|------|
| $\% \text{ Initial Permeability} = \frac{1}{(a + bH^c)}$ | | | |
| | a | b | c |
| 26 μ | 0.01 | 6.10E-08 | 2.19 |
| 60 μ | 0.01 | 7.69E-07 | 2.03 |



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