# Material Characteristics - AS series

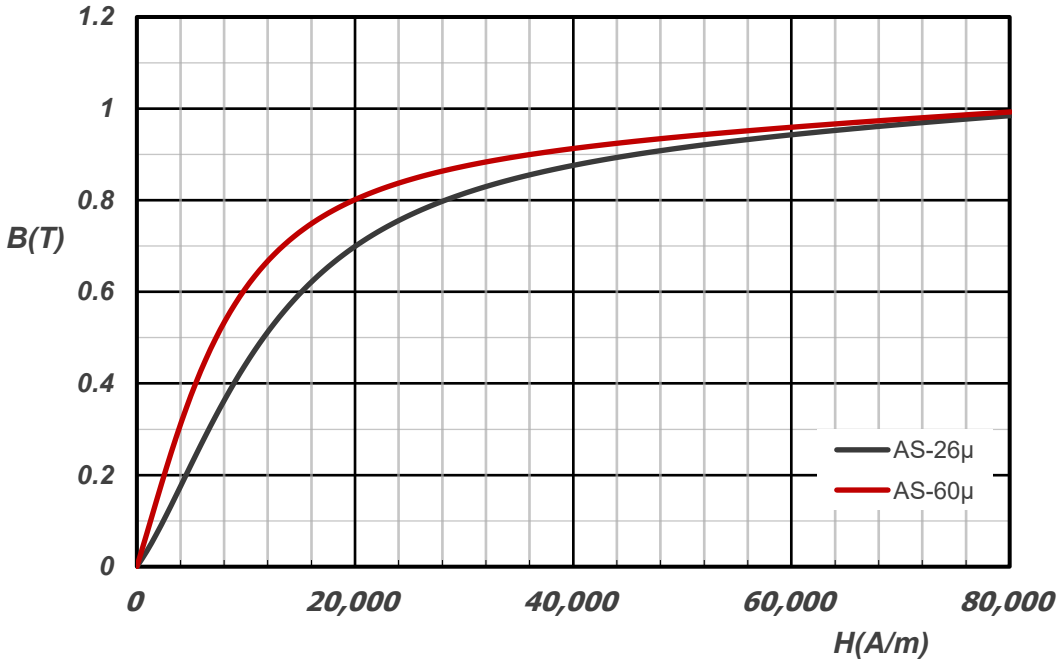
## Features

- ◆ Magnetostriction close to zero
- ◆ Good temperature stabilization
- ◆ High cost-effectiveness

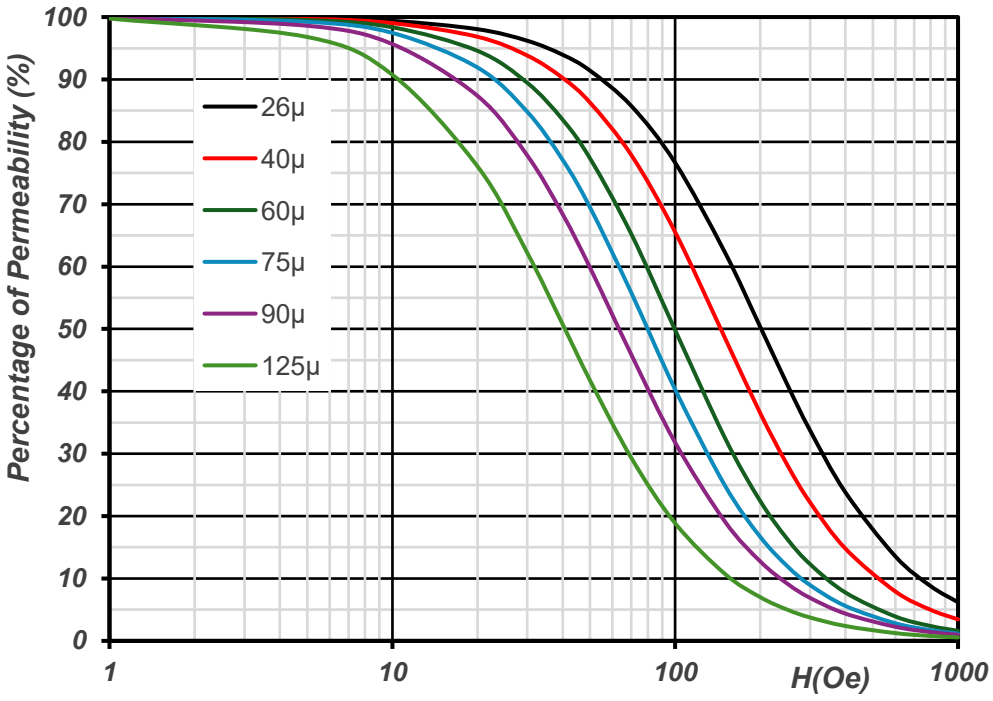
## Applications

- ◆ PFC inductor
- ◆ Boost choke for PV inverter
- ◆ 50~100kHz power applications

## Saturation Flux Density vs Magnetic Field




## Percent Initial Permeability vs DC Magnetizing Force



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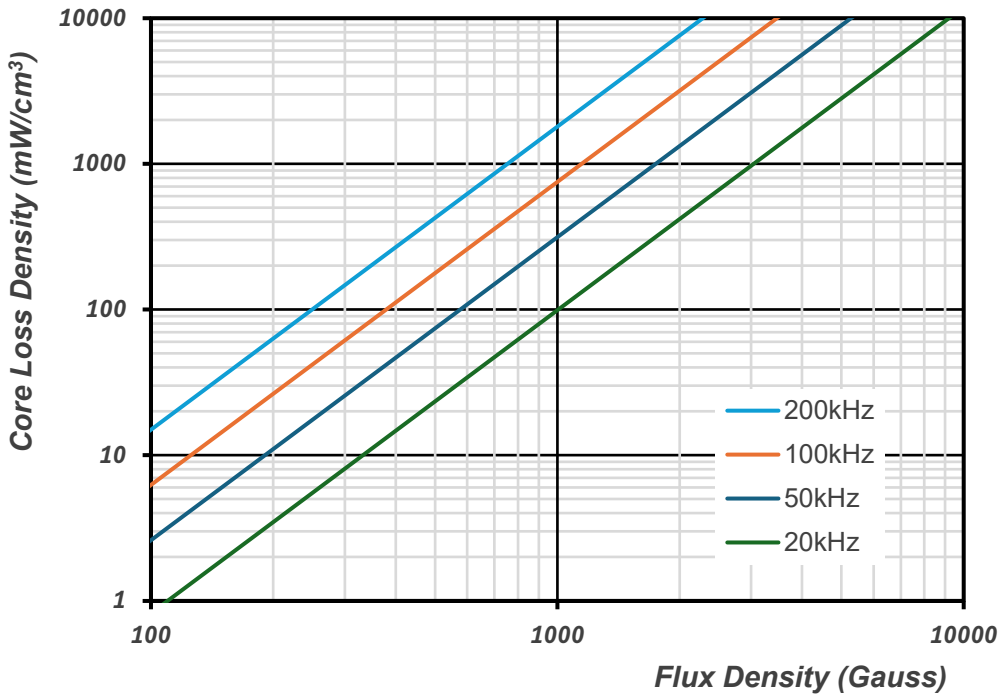
The curve fitting process gives rise to the following core loss density Pv(mW/cm$^3$) equation：

$$Pv(mW/cm^3) = Cm \cdot f^x \cdot B^y$$

**frequency(f) unit in kHz and flux density(B) unit in kGauss*

| $\mu_e$ | $C_m$ | x | y |
|---|---|---|---|
| 26 & 40 | 2.27 | 1.26 | 2.08 |
| 60 & 75<br>90 & 125 | 1.18 | 1.46 | 2.17 |

## Typical Core Loss Curves (26μ, 40μ)




## Typical Core Loss Curves (60μ, 75μ, 90μ, 125μ)