

NANOCRYSTALLINE MAG-AMP CORE

PRODUCT SUMMARY

Description MN series nanocrystalline Mag-Amp cores are now available by SHINHOM's innovated technology. The nanocrystalline Mag-Amp cores are manufactured with a new class of iron-based nanocrystalline soft magnetic alloys, Fe-Cu-Nb-Si-B.

Since the nanocrystalline materials have a relatively high electrical resistivity of about $120\mu\Omega\text{-cm}$ and a ribbon thickness of about $18\sim 24\mu\text{m}$ the eddy current losses are relatively low up to frequencies of about $18\sim 24\mu\text{m}$ the eddy current losses are relatively low up to frequencies of about 100kHz. As an applications in switch-mode power supply, the high saturation magnetic induction of 1.2T and thermal stability would give it a distinct advantage over many existing materials.

And with its very high squareness is an another choice for switch-mode power supply engineers to design Mag-Amp circuits for secondary output voltage regulation which are highly cost-effective in general purpose power supplies.

Adapting MN Mag-Amp gives following attractive benefits.

1. Cut Down the Cost

Smaller in component size with the help of large saturation magnetic induction give cost effective circuit design.

2. High Temperature Operating

Higher Curie temperature of material enables operating up to 120°C .

3. High Precision Regulation

High squareness and relatively low coercive force enable precision regulation.

Feature

- High saturation flux density of 1.2T
- Smaller component size
- Extended operating temperature range up to 120°C

Application

- Magnetic Amplifiers for switched mode power supplies
- power supplies for personal computer
- Open-frame switched-mode power supplies
- Precise output voltage control such as 3.3V, 5V and 12V in SMPS
- Other kinds of saturable reactor