

## IRON POWDER CORES SERIES PRODUCTS

# Property contrast

Sendust Core, MPP Core, High Flux Core

### CHARACTER OF IRON POWDER CORES:

1. High saturated magnetic induction strength , it may work in large current, without saturation.
2. Stable and reliable properties, effective permeability has excellent frequency property.
3. Having good temperature property , apply to  $-65^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  temperature range.
4. Toroidal structure has minimum electromagnetic radiation, save shielded materials and reduce the requirement for shield work.
5. Iron powder cores have outstanding restrained and absorbed ability for noise. Its property is more than that of metal lamination and Ferrite core.

In light-adjusting circuit, adopt iron powder cores to restrict the climbing rate after set up an electric circuit and gain more ideal current rising curve, effectly remove harmful wave than metal lamination core (90 conducting angle).

In many using situation, to prevent magnetic saturation, it opens up a air-gap in Ferrite core and lamination core ( Si-Fe, Ni-Fe ) magnetic path to use " cut-open effect ", but it will cause additional loss and electromagnetic radiation in partial air-gap. Seeing that switch frequency to develop high frequency, strengthening sensitivity of circuit, that is not to be ignored. Using iron powder cores can avoid or greatly reduce this side effect and noise.

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### CHARACTER OF IRON POWDER CORES:

#### Powder core Features

Cores	Features	Applications
<b>Iron Powder Cores</b>	<ul style="list-style-type: none"> <li>• High Maximum Flux Density</li> <li>• Low Cost</li> <li>• Large Energy Storage Capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Output Chokes for Switching Power Supplies</li> <li>• Conducted EMI Noise Filters</li> <li>• Pulse Transformers</li> <li>• DC Output/Input Filters</li> <li>• Light Dimmer Chokes(PFc)</li> <li>• Power Factor Correction Inductors</li> <li>• Continuous-mode Fly-back Inductors</li> </ul>
<b>Sendust Cores</b>	<ul style="list-style-type: none"> <li>• Core Losses Significantly Lower than Iron Powder Cores</li> <li>• Good DC-Bias Characteristics</li> <li>• Cost between Powder Iron and MPP</li> </ul>	<ul style="list-style-type: none"> <li>• Switching Regulator Inductors</li> <li>• In-line Noise Filters</li> <li>• Pulse Transformers, Fly-back Transformers</li> <li>• PFC Chokes</li> </ul>
<b>MPP Cores</b>	<ul style="list-style-type: none"> <li>• High Resistivity</li> <li>• Low Hysteresis and Eddy Current Losses</li> <li>• Excellent Inductance Stability under High DC-Bias Condition</li> <li>• Good Temperature Stability</li> </ul>	<ul style="list-style-type: none"> <li>• Inductors for High Q</li> <li>• Low Loss Filter Circuits</li> <li>• Loading Coils</li> <li>• Transformers, Chokes and Inductors</li> <li>• Out-put Filter</li> <li>• Storage Chokes</li> </ul>
<b>High Flux Cores</b>	<ul style="list-style-type: none"> <li>• Excellent DC-Bias Characteristics</li> <li>• High Bmax of 15000Gauss Compared to MPP or Ferites</li> <li>• Core Losses Significantly Lower than Iron Cores</li> <li>• Large Energy Storage Capacity</li> </ul>	<ul style="list-style-type: none"> <li>• In-line Noise Filters</li> <li>• Switching Regulator Inductors</li> <li>• Pulse transformers, Fly-back Transgormers</li> <li>• PFC Chokes</li> <li>• Out-put Filter</li> <li>• Storage Chokes</li> </ul>