

## **INTRODUCTION**

Iron powder as a core material has been widely used. The distributed air gap properties in iron powder cores also make them extremely well-suited for a variety of energy storage inductor applications.

Iron powder is a COST-EFFECTIVE design. It can also be used in place of ferrites and iron-alloy lamination requiring a gap.

## **AVAILABILITY**

Part Number in this catalog are standard items and are generally available from stock. Other items are available on a build-to-order basis. Orders may be placed directly with the factory, where immediate stock information is available.

## **TEMPERATURE EFFECTS**

Iron powder is well-suited for operation from  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ . Iron powder has a high curie temperature and will function to several hundred degrees Celsius. However, continued operation above  $125^{\circ}\text{C}$  may result in a permanent decrease in inductance and an increase in high frequency core loss. The extent of this shift in characteristics will vary with conditions. High temperature operations is not recommended for designs dominated by core loss.

## **FINISH**

The toroidal cores are coated with Epoxy coating. The coating has a dielectric strength of 500 volts minimum.