

Ferrite for Switching Power Supplies

Wide Temperature Range, Low Loss Power Material PC95

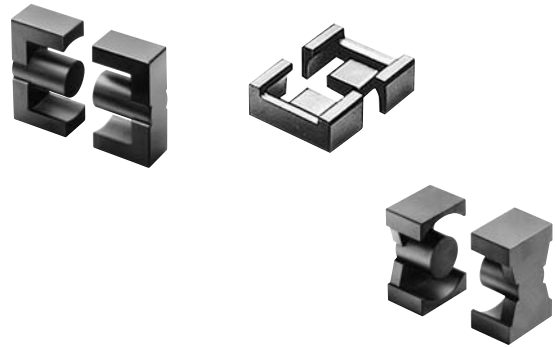
Based on TDK's ferrite technologies, PC95 is a high-performance ferrite material that achieves low loss over a wide range of temperatures.

This material delivers the same level of saturated magnetic flux density as our existing PC44 and also delivers minimal loss (under 350kW/m^3) at temperatures ranging from 25 to 120°C .

PC95 can be used at a near-optimum state regardless of temperature. Owing to this characteristic, transformers based on the material PC95 are optimally suited for use in DC to DC converters in electric vehicle applications, such as HEVs and FCEVs, in which components are exposed to a wide range of temperatures. It can also be used in switching power supply transformers.

FEATURES

- Low loss: $<350\text{kW/m}^3$ (100kHz, 200mT) from 25 to 120°C .
- If used in DC to DC converters for electric vehicles, fuel efficiency can be improved due to the improved power efficiency over a wide temperature ranges.
- The materials offer about the same saturation magnetic flux density as PC44 from room temperature up to high temperatures.
- The materials can be shaped into standard as well as original shapes.



APPLICATIONS

- DC to DC converters for automobiles
- Main transformers for various switching power supplies
- Inverter transformers for LCD backlight
- AC adapters and chargers

MATERIAL CHARACTERISTICS

Material	PC95(NEW)		PC44
	25°C	350	600
Core loss Pcv kW/m ³ [100kHz, 200mT]	80°C	280	320
	120°C	350	400

CORE LOSS vs. TEMPERATURE CHARACTERISTICS

