

Ferrite for Switching Power Supplies

Low Loss Materials PC45 and PC46

In recent years, with the advent of notebook type pc, VCR's, digital camera's and mobile communication devices, technological demands have risen for higher performance CCFL LCD backlight units that have smaller sizes, lower profiles and higher efficiency.

The PC45 and PC46 are materials developed to achieve higher efficiency in designing minimize core loss at practical temperature ranges (PC45: 60 to 80°C and PC46: 40 to 50°C) and high saturation flux density.

They are also suitable for the transformers of DC to DC converters and adapters of notebook type pc.

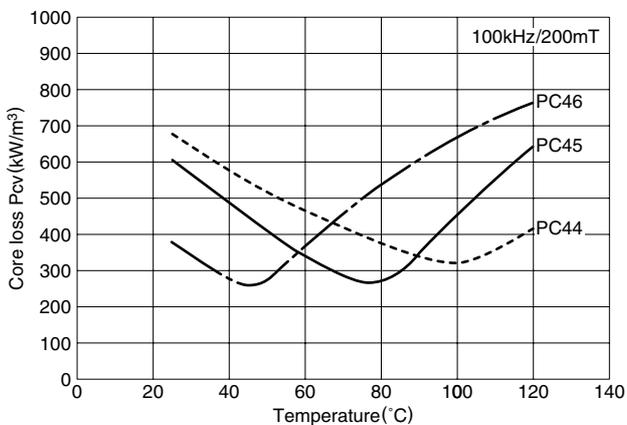
APPLICATIONS

- Switching power supplies
- Adapters and chargers for notebook type pc
- CCFL LCD backlight

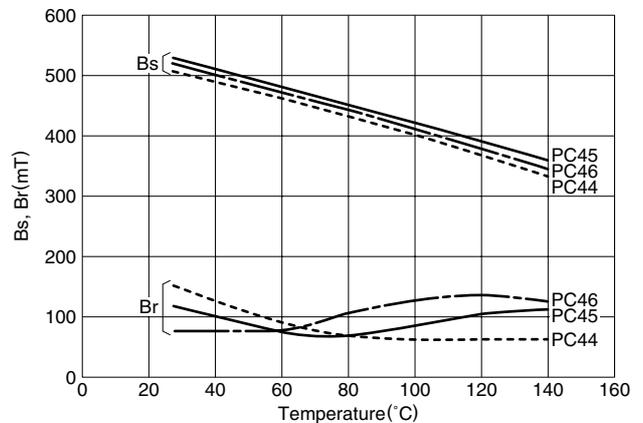
MATERIAL CHARACTERISTICS

Material			PC45	PC46	PC44
Initial permeability	μ	25°C	2500±25%	3200±25%	2400±25%
Core loss volume density [100kHz, 200mT]	Pcv	25°C	570	350	600
		60°C	250(75°C)	250(45°C)	400
		100°C	460	660	300
Saturation magnetic flux density [1000A/m]	Bs	25°C	530	530	510
		100°C	420	410	390
Remanent flux density	Br	25°C	120	80	110
		100°C	80	115	60
Curie temperature	Tc	°C	230	230	215
Density	db	kg/m ³	4.8×10 ³	4.8×10 ³	4.8×10 ³

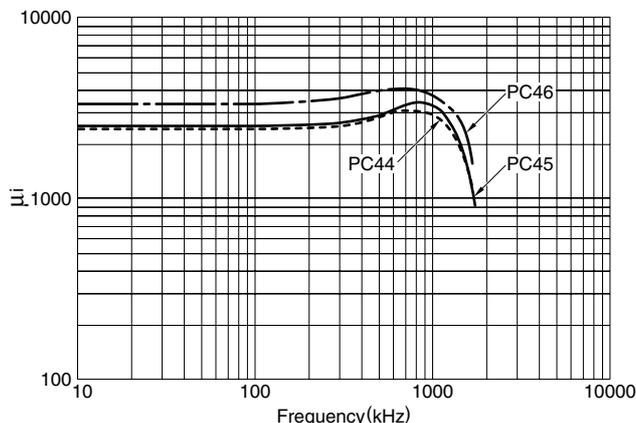
P_{cv} TEMPERATURE DEPENDENCE CHARACTERISTICS (Typical)



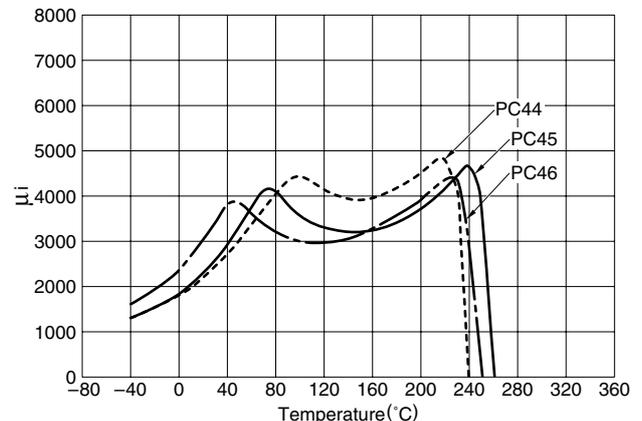
B_s and B_r TEMPERATURE DEPENDENCE CHARACTERISTICS (Typical)



μ vs. FREQUENCY CHARACTERISTICS (Typical)



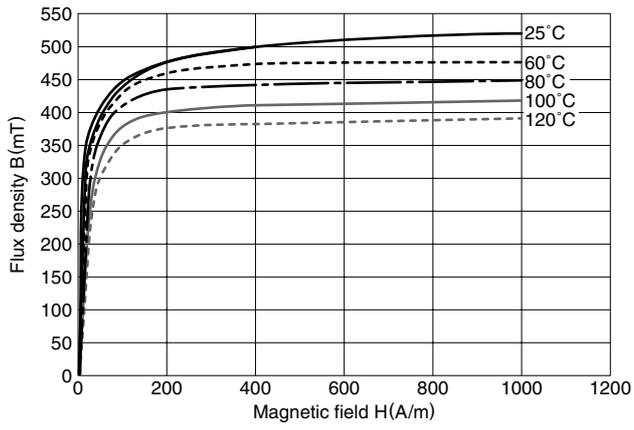
μ vs. TEMPERATURE CHARACTERISTICS (Typical)



• All specifications are subject to change without notice.

MAGNETIZATION CURVES

MATERIAL:PC45



MATERIAL:PC46

