

## APPLICATION

- Power choke coils for Switching power supplies.
- Power choke coils for PC notebooks.

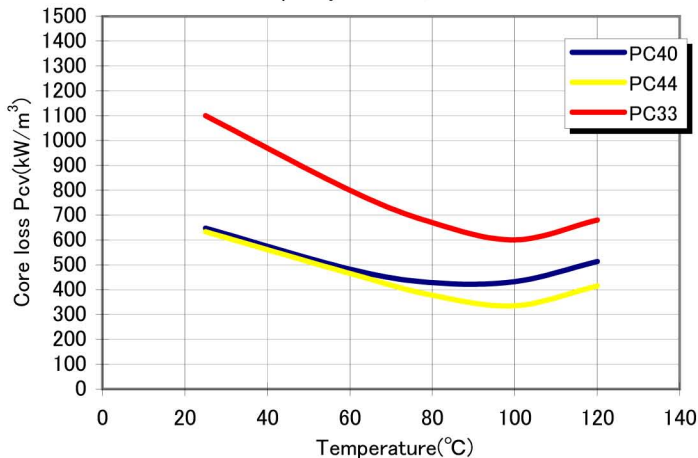


## SPECIFICATION

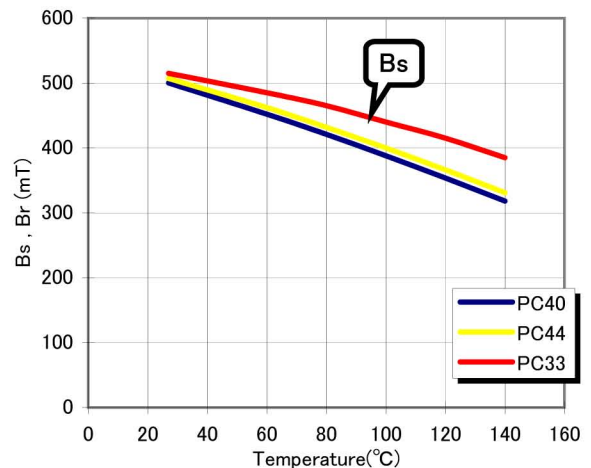
### Material characteristics

Material		PC44	PC40	
Saturation magnetic flux density at 1000A/m	$\beta_s$ (mT)	25°C	510	510
		100°C	390	390
Initial permeability	$\mu_i$	25°C	2400 ± 25%	2300 ± 25%
Core loss volume density at 100kHz,200mT	$P_{cv}$ (kW/m <sup>3</sup> )	25°C	600	600
		60°C	400	450
		100°C	300	410
Curie temperature	$T_c$ (°C)	min.	215	215
Density	$d_b$ (kg/m <sup>3</sup> )		4.8X10 <sup>3</sup>	4.8X10 <sup>3</sup>

Temperature dependence of  $P_{cv}$  (Typical)  
Materials : PC40 , PC44 and PC33  
Frequency : 100kHz / 200mT



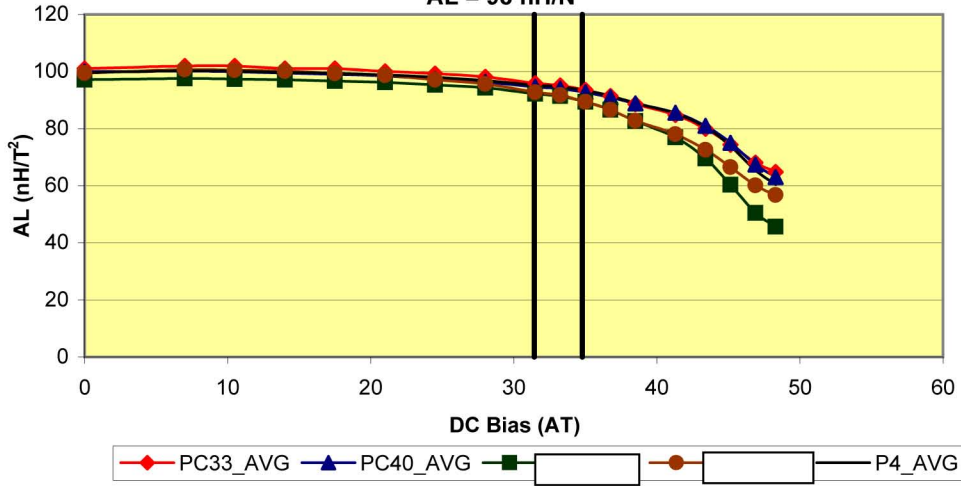
Temperature dependence of  $B_s$   
Materials : PC40 , PC44 , PC33 (Typical)



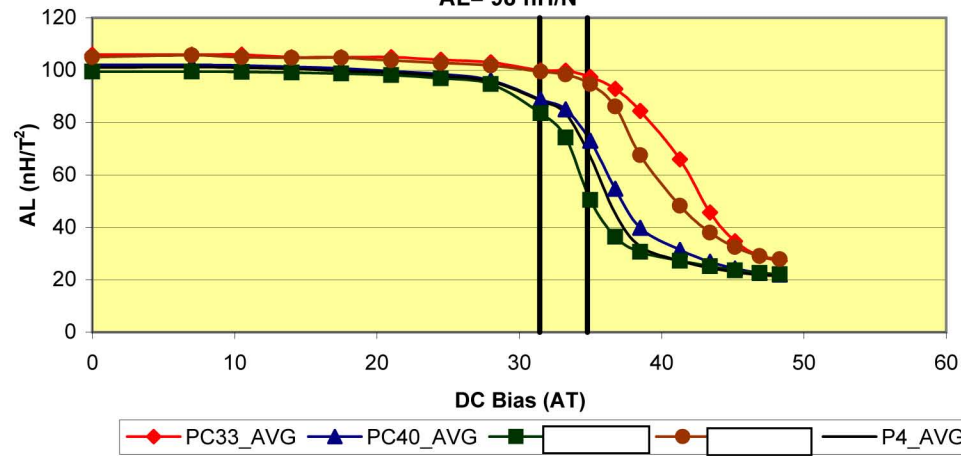
# Saturation of Several Materials

## Al versus NI Limit

ER11/5 at 25°C  
AL = 98 nH/N<sup>2</sup>



ER11/5 at 100°C  
AL = 98 nH/N<sup>2</sup>



ER11/5 at 120°C  
AL = 98 nH/N<sup>2</sup>

