

標準材質特性

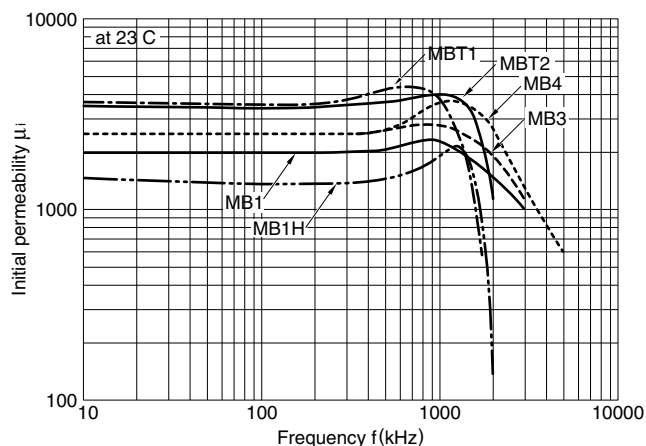
Material Characteristics

材質名 Material			MB1	MB1H	MB3	MB4	MBT1	MBT2
初透磁率 Initial permeability	$\mu_i$	23°C	2000±25%	1600±25%	2500±25%	2500±25%	3400±25%	3300±25%
実効飽和磁束密度(1200A/m) Saturation flux density at 1200A/m (mT)	B <sub>ms</sub>	23°C	510	540	510	520	510	530
		60°C	470	505	450	470	460	470
		100°C	420	460	390	400	390	400
実効飽和残留磁束密度 Remanence	B <sub>rms</sub> (mT)	23°C	310	300	130	130	90	70
		60°C	170	170	90	88	70	50
		100°C	80	80	55	54	60	40
実効飽和保磁力 Coercivity	H <sub>cms</sub> (A/m)	23°C	14.0	16.1	14.3	12.7	9.0	7.5
		60°C	9.4	10.5	10.3	8.0	7.0	5.5
		100°C	6.1	7.3	8.8	6.4	6.0	4.3
パワーロス(100kHz, 200mT) Power loss at 100kHz, 200mT	P <sub>cv</sub> (kW/m <sup>3</sup> )	23°C	870(900max.)	980(1070max.)	650(700max.)	575(630max.)	395(450max.)	370(425max.)
		60°C	600(620max.)	600(670max.)	440(500max.)	375(430max.)	325(430max.)	310(365max.)
		100°C	420(440max.)	380(450max.)	350(410max.)	270(300max.)	340(380max.)	300(340max.)
		120°C	475(490max.)	550(630max.)	390(500max.)	350(400max.)	390(430max.)	370(410max.)
キュリー温度 Curie temperature	T <sub>c</sub> (°C)		255min.	300min.	215min.	215min.	230min.	215min.
抵抗率 Resistivity	$\rho$ (-m)		6min.	6min.	6min.	4.5min.	4min.	4min.
密度 Density	d (kg/m <sup>3</sup> )		4.9×10 <sup>3</sup>	4.9×10 <sup>3</sup>	4.9×10 <sup>3</sup>	4.9×10 <sup>3</sup>	4.8×10 <sup>3</sup>	4.8×10 <sup>3</sup>

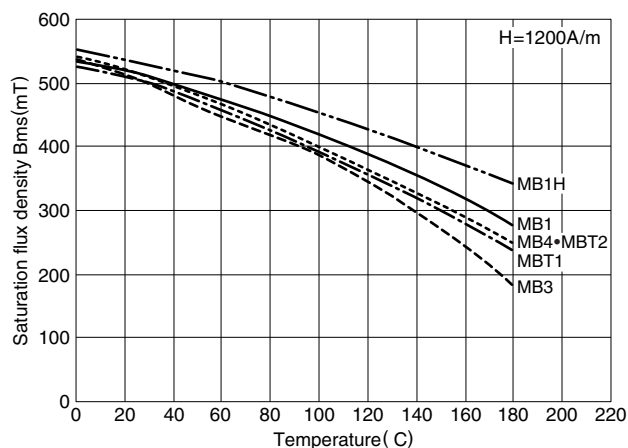
1A/m=4π×10<sup>-3</sup>Oe, 1mT=10Gauss

材質評価コア(R31/19/8Aリングコア)における特性を示しています。

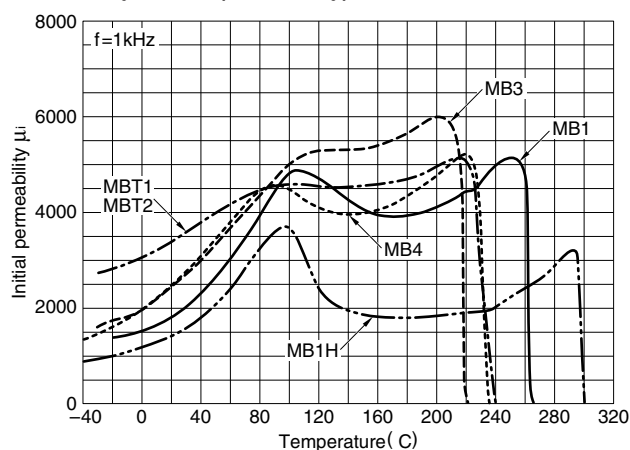
$\mu_i$ -周波数特性  
Permeability vs. Frequency(Typical)



B<sub>ms</sub>-温度特性  
Saturation flux density vs. Temperature(Typical)

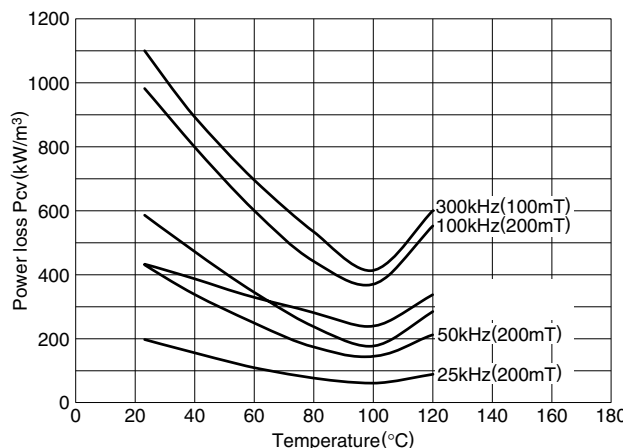


$\mu_i$ -温度特性  
Permeability vs. Temperature(Typical)



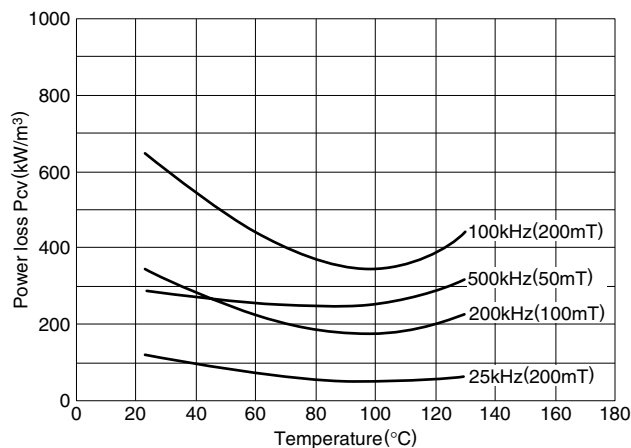
MB1H パワーロス-温度特性

MB1H Power loss vs. Temperature(Typical)



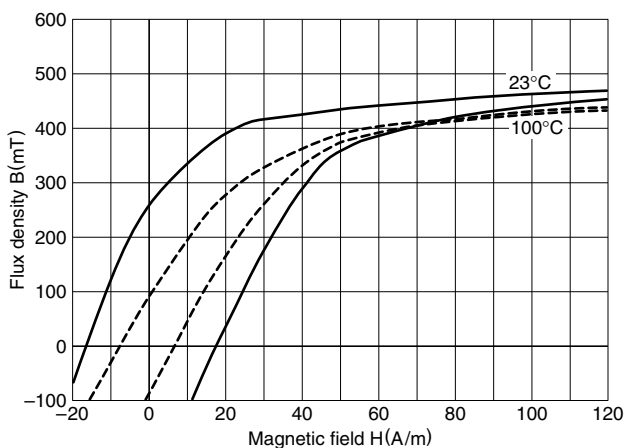
MB3 パワーロス-温度特性

MB3 Power loss vs. Temperature(Typical)



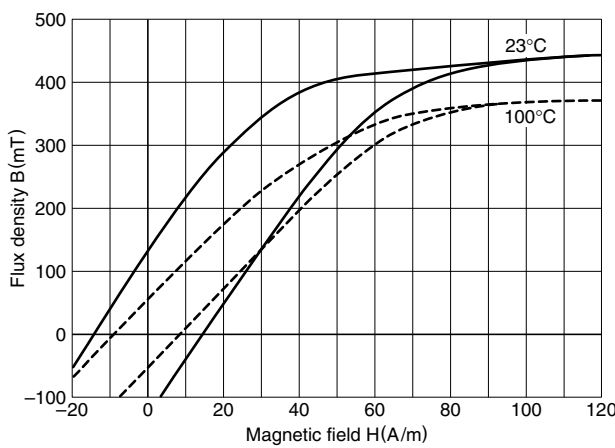
MB1H 直流ヒステリシス特性

MB1H Static magnetization curves(Typical)



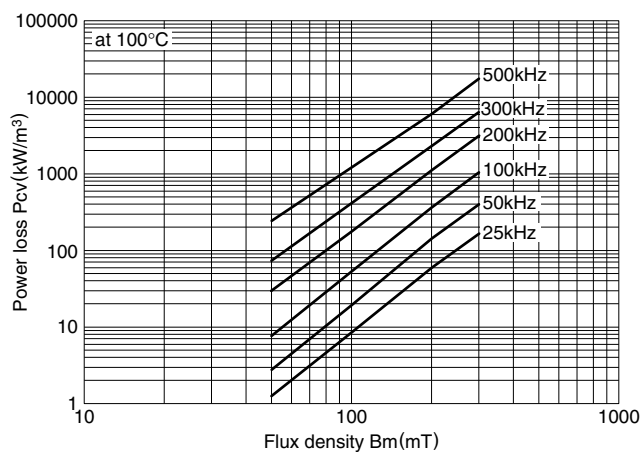
MB3 直流ヒステリシス特性

MB3 Static magnetization curves(Typical)



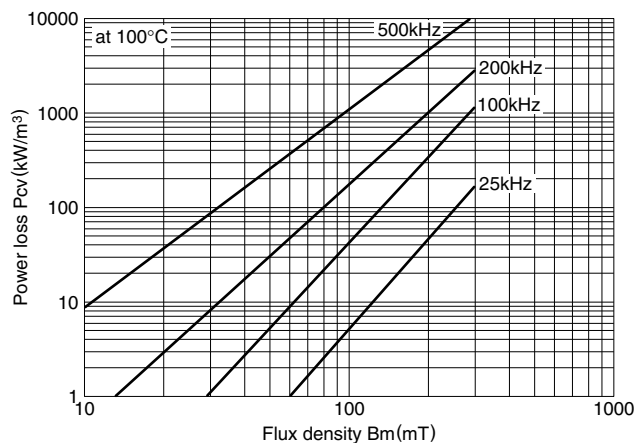
MB1H パワーロス-磁束密度特性

MB1H Power loss vs. Flux density(Typical)



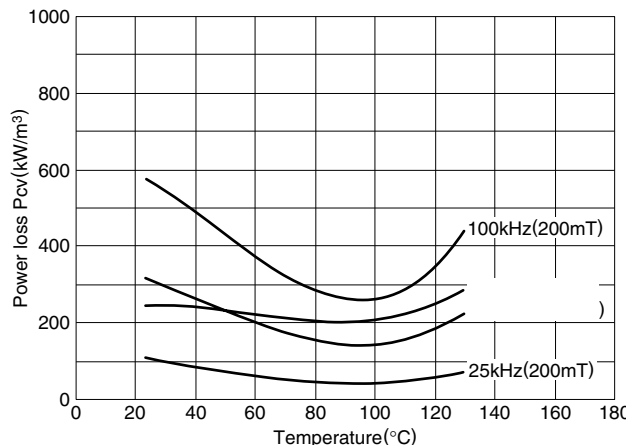
MB3 パワーロス-磁束密度特性

MB3 Power loss vs. Flux density(Typical)



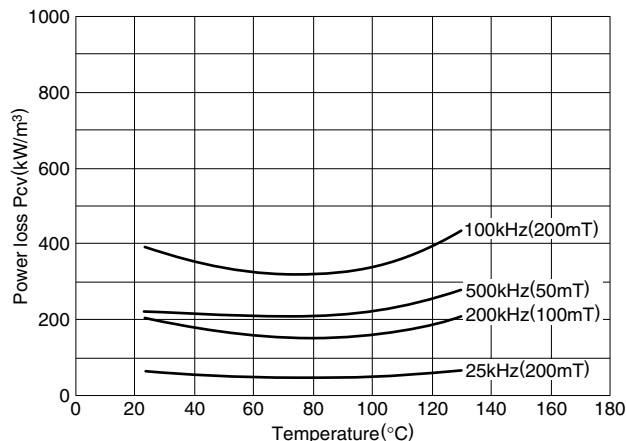
MB4 パワーロス-温度特性

MB4 Power loss vs. Temperature(Typical)



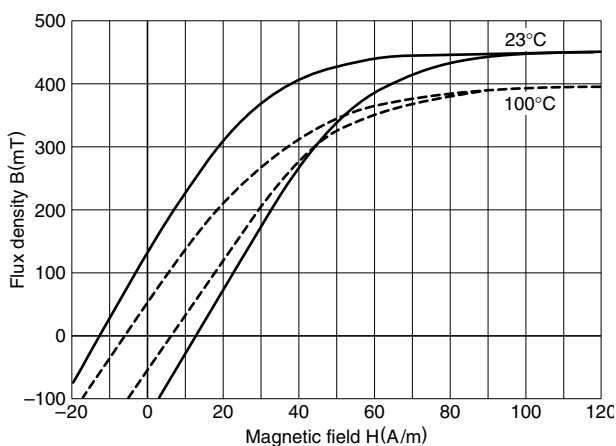
MBT1 パワーロス-温度特性

MBT1 Power loss vs. Temperature(Typical)



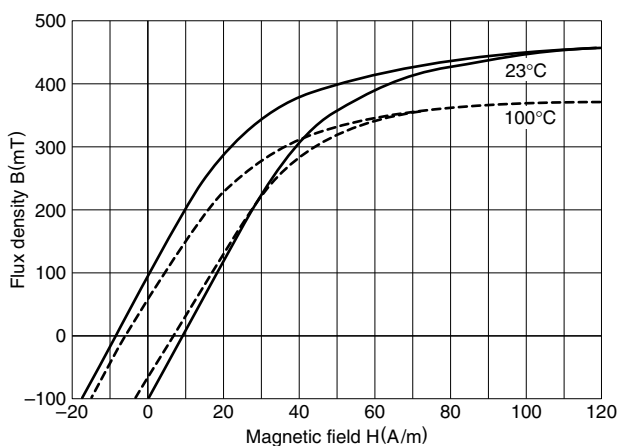
MB4 直流ヒステリシス特性

MB4 Static magnetization curves(Typical)



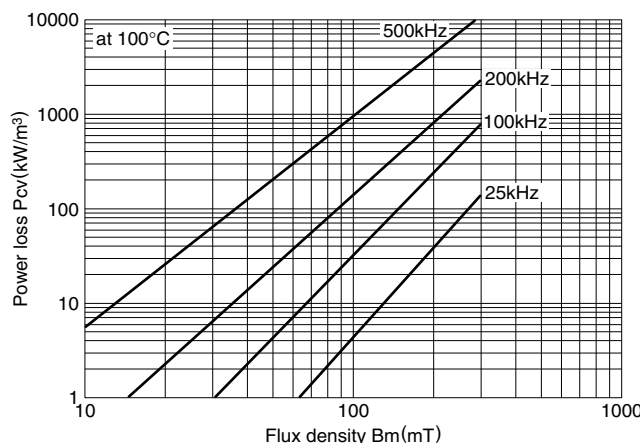
MBT1 直流ヒステリシス特性

MBT1 Static magnetization curves(Typical)



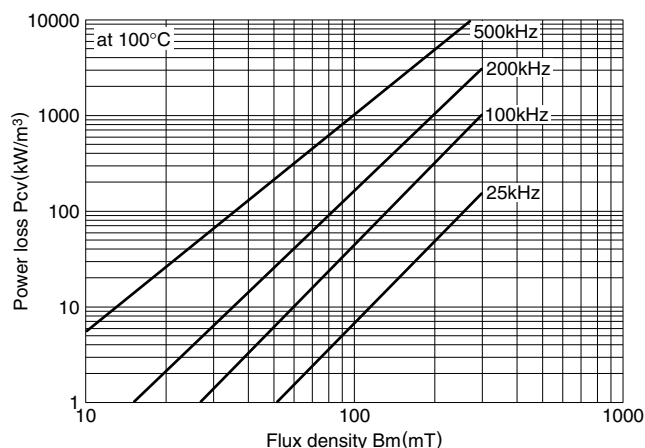
MB4 パワーロス-磁束密度特性

MB4 Power loss vs. Flux density(Typical)



MBT1 パワーロス-磁束密度特性

MBT1 Power loss vs. Flux density(Typical)



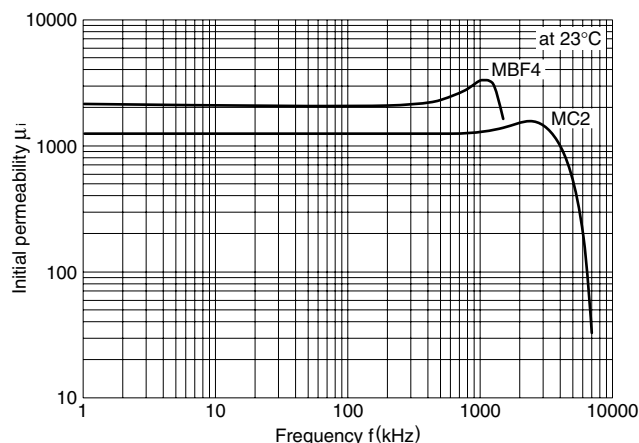
標準材質特性

Material Characteristics

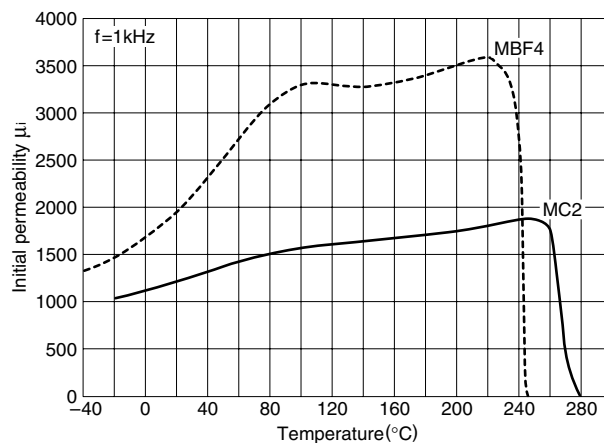
材質名	Material		MBF4	MC2
初透磁率	$\mu_i$	23°C	2100	1250
実効飽和磁束密度(1200A/m) Saturation flux density at 1200A/m	Bms (mT)	23°C	520	510
		60°C	470	470
		100°C	400	410
実効飽和残留磁束密度 Remanence	Brms (mT)	23°C	130	180
		60°C	88	130
		100°C	54	110
実効飽和保磁力 Coercivity	Hcms (A/m)	23°C	12.7	40
		60°C	8.0	35
		100°C	6.4	30
パワーロス(100kHz, 200mT) Power loss at 100kHz, 200mT	Pcv (kW/m <sup>3</sup> )	23°C	610max.	
		60°C	420max.	
		100°C	300max.	
		120°C	400max.	
パワーロス(200kHz, 100mT) Power loss at 200kHz, 100mT	Pcv (kW/m <sup>3</sup> )	23°C	320max.	
		60°C	210max.	
		100°C	125max.	
		120°C	165max.	
パワーロス(300kHz, 100mT) Power loss at 300kHz, 100mT	Pcv (kW/m <sup>3</sup> )	23°C	540max.	
		60°C	390max.	
		100°C	310max.	
		120°C	410max.	
パワーロス(500kHz, 50mT) Power loss at 500kHz, 50mT	Pcv (kW/m <sup>3</sup> )	23°C	240max.	150
		60°C	200max.	80
		100°C	170max.	65
		120°C	220max.	70
パワーロス(1MHz, 50mT) Power loss at 1MHz, 50mT	Pcv (kW/m <sup>3</sup> )	23°C	440	
		60°C	330	
		100°C	400	
		120°C	460	
キュリー温度 Curie temperature	Tc (°C)		215min.	260min.
抵抗率 Resistivity	$\rho$ (-m)		10min.	15min.
密度 Density	d (kg/m <sup>3</sup> )		4.8×10 <sup>3</sup>	4.8×10 <sup>3</sup>

1A/m=4π×10<sup>-3</sup>Oe, 1mT=10Gauss  
材質評価コア(R-20/10/5Aリングコア)における代表特性を示しています。

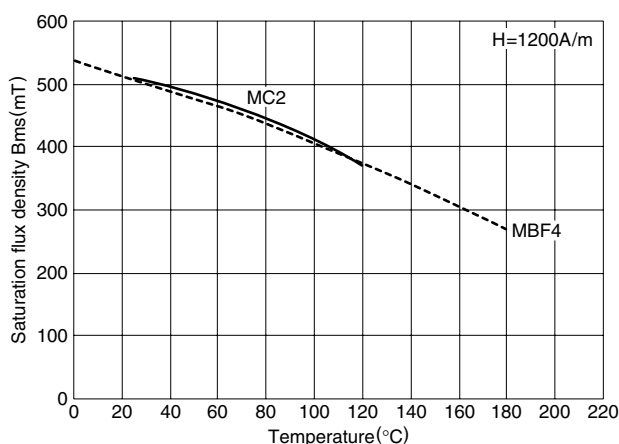
$\mu_i$ -周波数特性  
Permeability vs. Frequency(Typical)



$\mu_i$ -温度特性  
Permeability vs. Temperature(Typical)

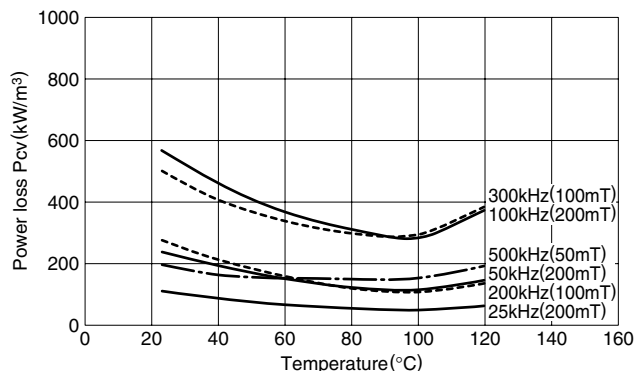


Bms-温度特性  
Saturation flux density vs. Temperature(Typical)



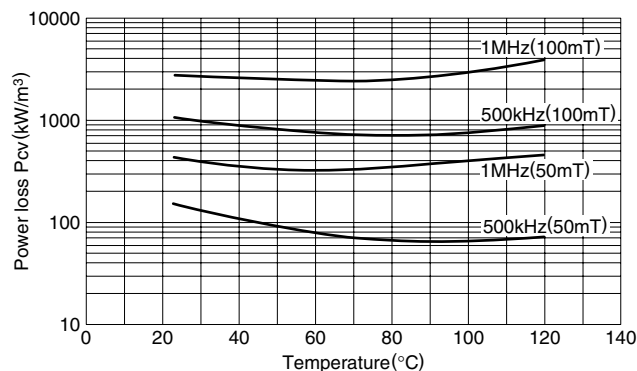
MBF4 パワーロス-温度特性

MBF4 Power loss vs. Temperature(Typical)



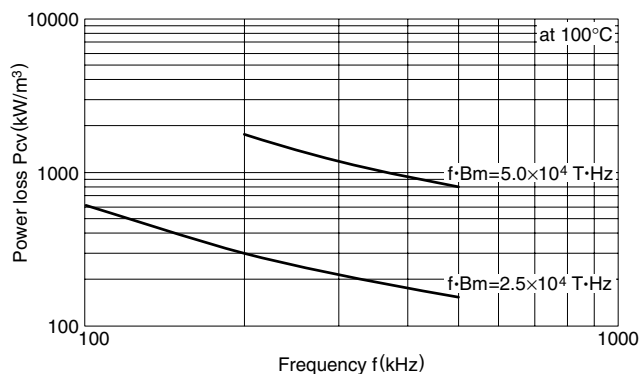
MC2 パワーロス-温度特性

MC2 Power loss vs. Temperature(Typical)



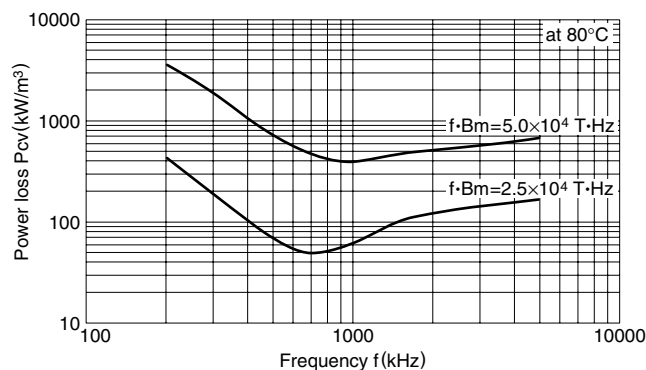
MBF4 パワーロス-周波数特性

MBF4 Power loss vs. Frequency(Typical)



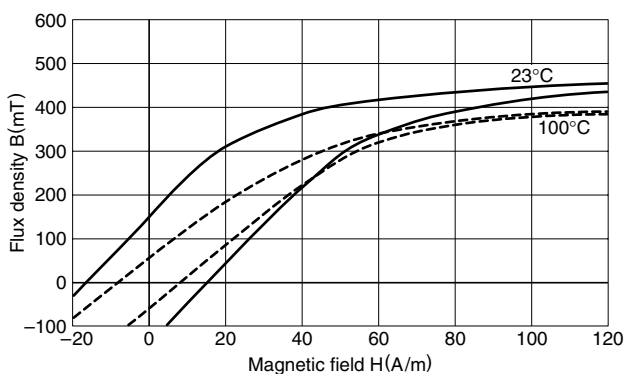
MC2 パワーロス-周波数特性

MC2 Power loss vs. Frequency(Typical)



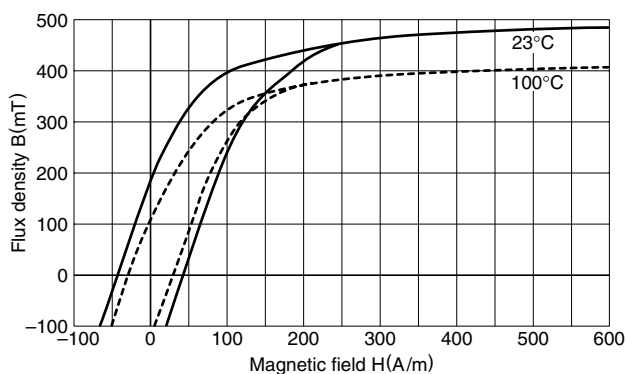
MBF4 直流ヒステリシス特性

MBF4 Static magnetization curves(Typical)



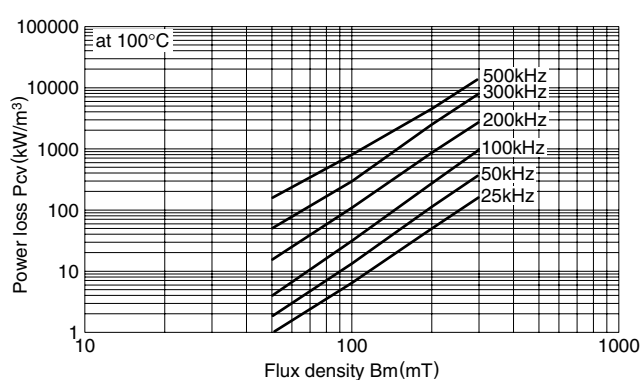
MC2 直流ヒステリシス特性

MC2 Static magnetization curves(Typical)



MBF4 パワーロス-磁束密度特性

MBF4 Power loss vs. Flux density(Typical)



MC2 パワーロス-磁束密度特性

MC2 Power loss vs. Flux density(Typical)

