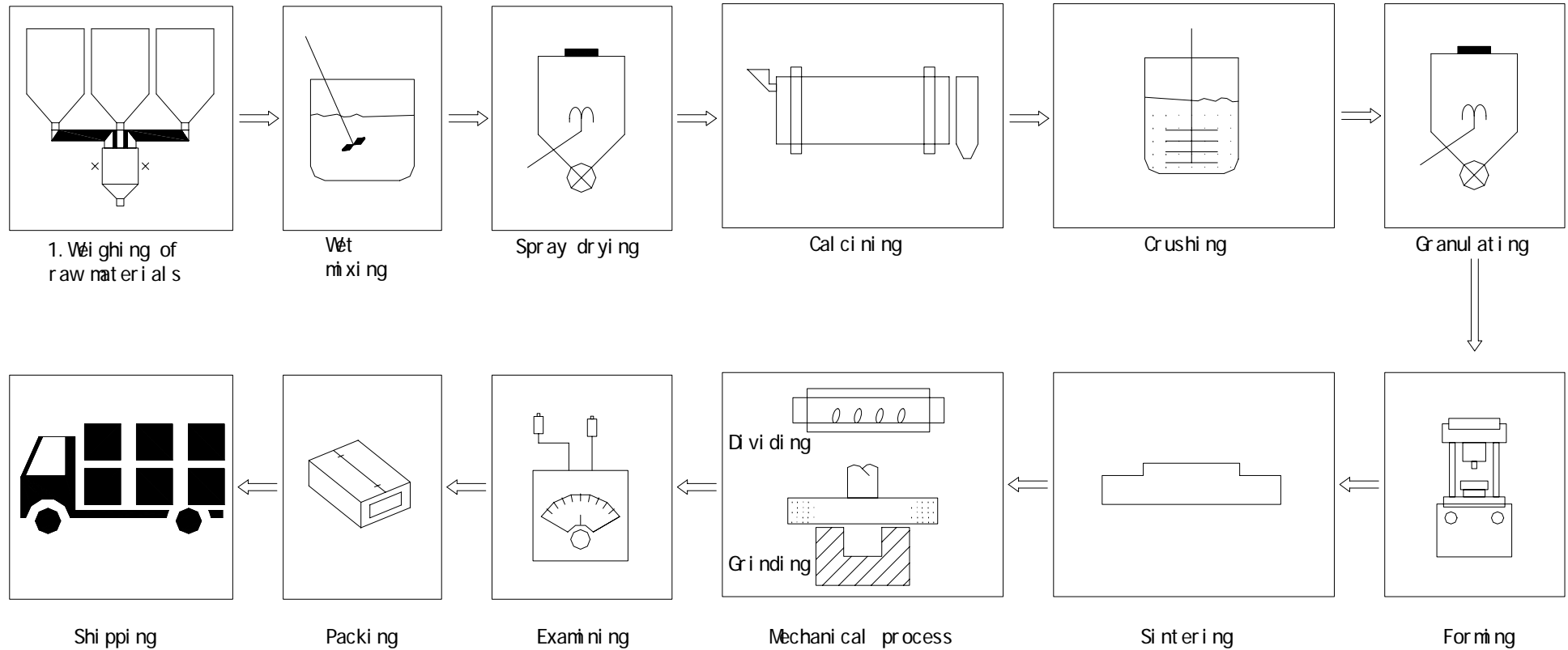


# Manufacturing Process



# MATERIALS CHARACTERISTICS

## For Transformer and Choke

Material				PB32	PL30	PL40	PL44		
Initial permeability	$\mu_i$			3200±25%	2500±25%	2300±25%	2000±25%		
Amplitude permeability	$\mu_a$			3000MIN	3000MIN	3000MIN	3000MIN		
Core loss [B=200mT]	Pcv	mW/cm <sup>3</sup>	25kHz sine wave	25°C	168	130	120		
				60°C	140	90	80		
				100°C	154	100	70		
				120°C			85		
				100kHz sine wave	25°C		700	600	600
					60°C		500	450	400
					100°C		600	410	300
					120°C			500	380
Saturation magnetic flux density* <sup>1</sup> [H=1194A/m]	Bs	mT	25°C	480	490	510	510		
			60°C			450	450		
			100°C	370	390	390	390		
			120°C			350	350		
Remanent flux density* <sup>1</sup>	Br	mT	25°C	100	110	95	110		
			60°C			65	70		
			100°C			55	60		
			120°C			50	55		
coercive force* <sup>1</sup>	Hc	A/m	25°C	12	12	14.3	13		
			60°C			10.3	9		
			100°C			8.8	6.5		
			120°C			8	6		
Curie temperature* <sup>1</sup>	Tc	°C		>215	>230	>235	>235		
Electrical resistivity* <sup>1</sup>	$\rho_v$	$\Omega \cdot m$		5	5.5	6.5	6.5		
Density* <sup>1</sup>	db	g/cm <sup>3</sup>		4.8	4.8	4.8	4.8		

\*<sup>1</sup>Average value

# MATERIALS CHARACTERISTICS

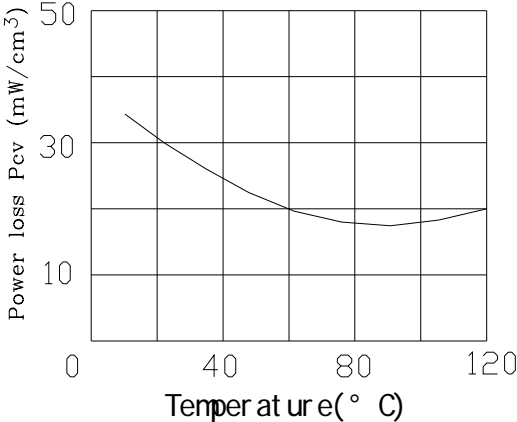
## FOR EMC COMMON-MODE CHOKE

Material		H043	H055	H065	H075	H100
Initial permeability	$\mu_i$	4300±25%	5500±25%	6500±25%	7500±25%	10000±30%
Relative loss factor	$\tan\delta/\mu_i \cdot 10^{-6}$	≤20(100kHz)	10(100kHz)	25.1(100kHz)	30(100kHz)	30(100kHz)
Saturation magnetic flux density*	Bs mT	350	410	420	410	380
[H=1194A/m]						
Remanent flux density*	Br mT	150	70	40	80	120
Coercive force*	Hc A/m	8	6		6	5
Curie temperature*	Tc	≥150	>150	≥125	>130	>130
Electrical resistivity*	$\rho_v \Omega \cdot m$	1	1	0.5	0.2	0.2
Density*	db g/cm <sup>3</sup>	4.9	4.9	4.9	4.9	4.9

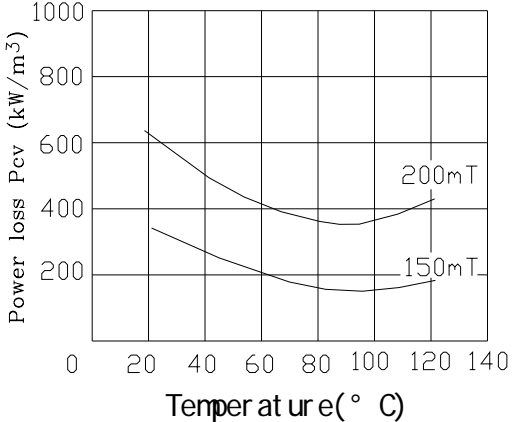
\*Average value

# MATERIALS CHARACTERISTICS

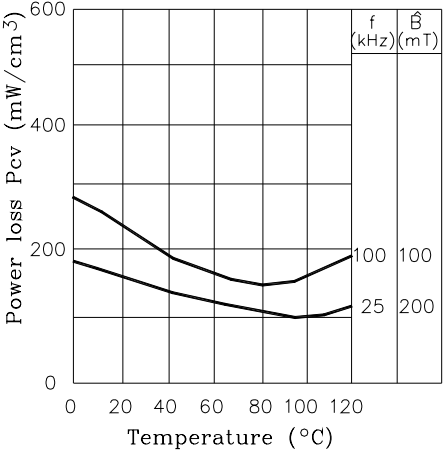
PB32



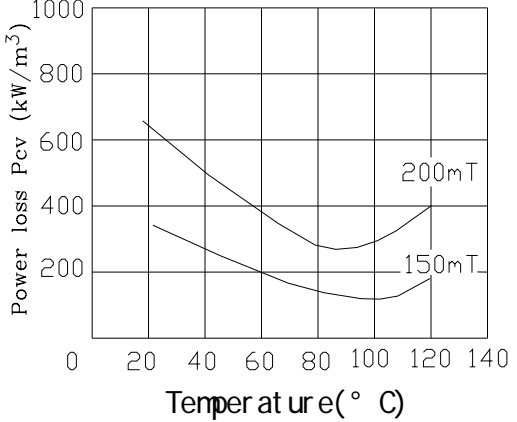
PL40



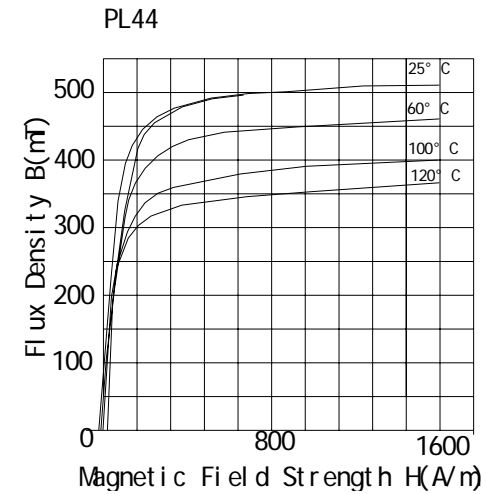
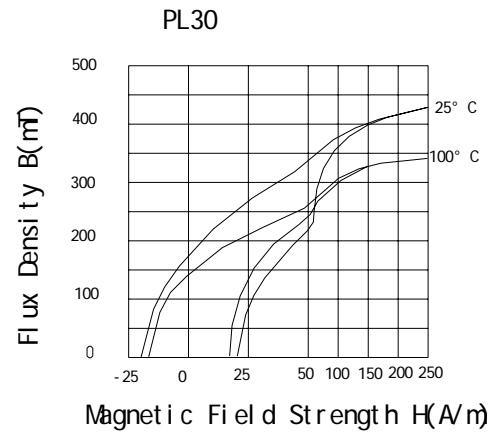
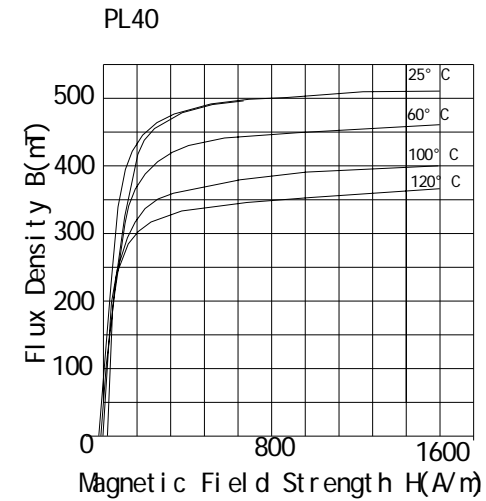
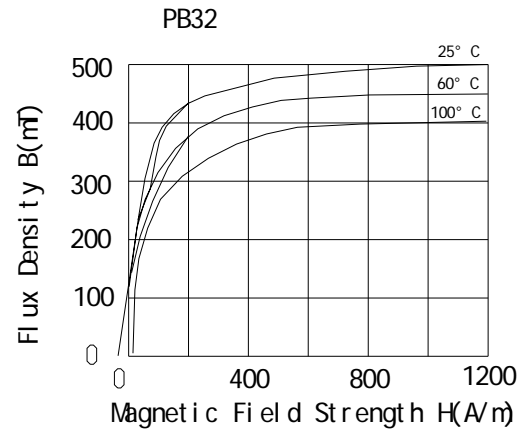
PL30



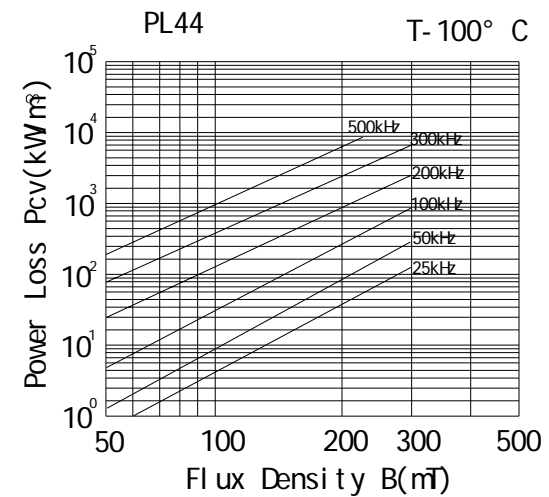
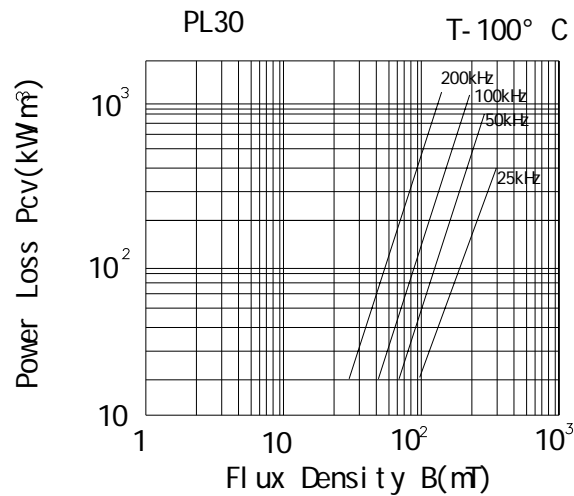
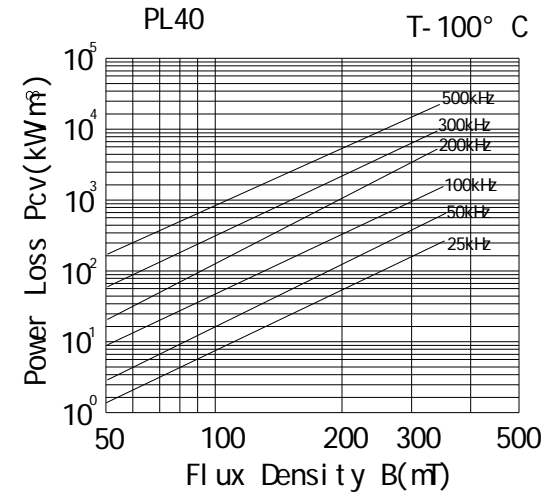
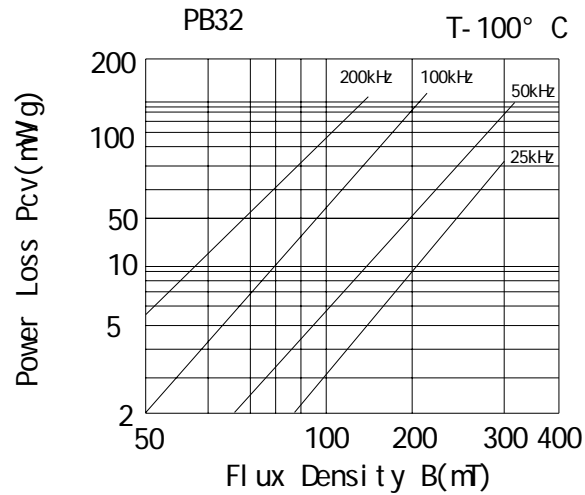
PL44



# MATERIALS CHARACTERISTICS

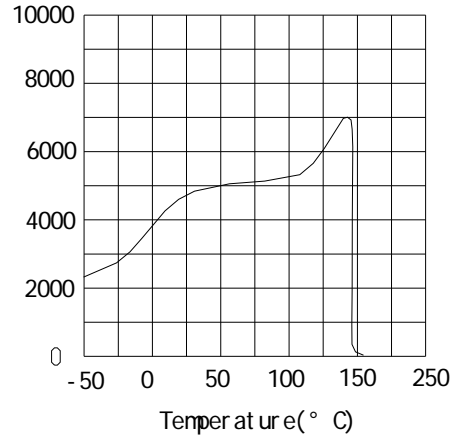


# MATERIALS CHARACTERISTICS

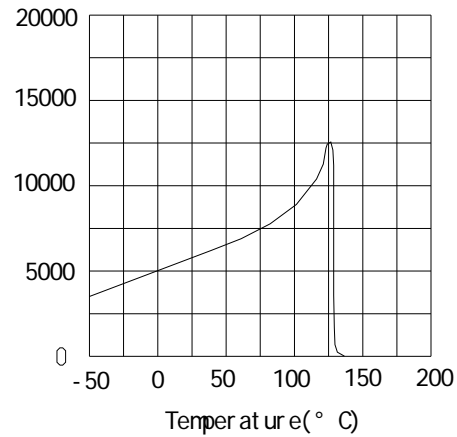


# MATERIALS CHARACTERISTICS

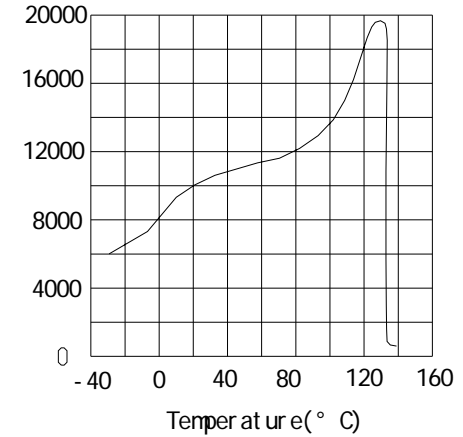
$\mu_i$  H043



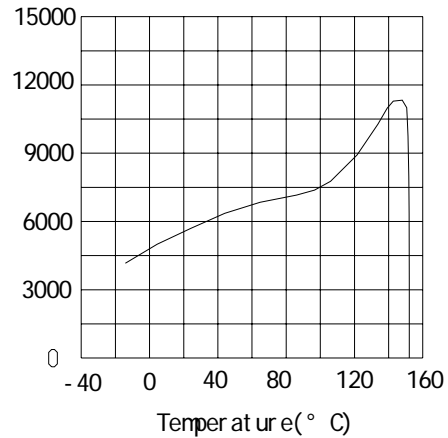
$\mu_i$  H065



$\mu_i$  H100



$\mu_i$  H055



$\mu_i$  H075

