

## Type : EP Cores

Ordering Code:

P4

EP7

G□

Material  
材質

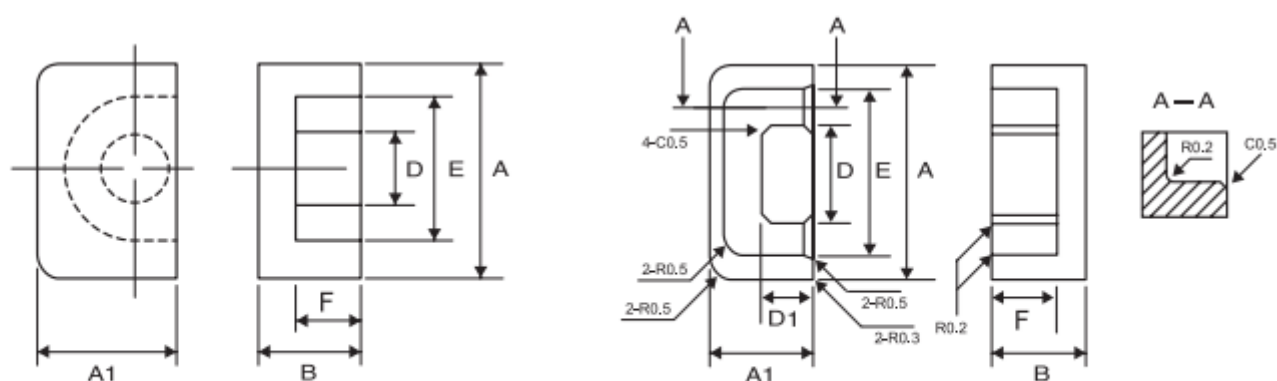
Core Size  
品名

Gapped AL Value

Shape:

Type:1

Type:2



### ■ DIMENSIONS

CORES	DIMENSIONS (mm)						Type
	A	A1	B	D	E	F	
EP5	6.00 ± 0.15	3.80 ± 0.10	2.80 ± 0.05	1.70 ± 0.10	4.40 ± 0.15	2.00 ± 0.10	1
EP5-1	6.00 ± 0.15	3.80 ± 0.10	3.40 ± 0.05	1.70 ± 0.10	4.40 ± 0.15	2.60 ± 0.10	1
EP7	9.20 ± 0.20	6.35 ± 0.15	3.75 $\begin{smallmatrix} +0.00 \\ -0.10 \end{smallmatrix}$	3.30 ± 0.10	7.40 ± 0.20	2.60 ± 0.10	1
EP7-1	9.20 ± 0.20	6.35 ± 0.15	4.75 ± 0.05	3.30 ± 0.10	7.40 ± 0.20	3.60 ± 0.10	1
EP7C	9.40 ± 0.20	6.50 ± 0.15	3.70 ± 0.10	3.30 ± 0.10	7.40min	2.60 ± 0.10	1
EP10	11.50 ± 0.30	7.65 ± 0.20	5.20 $\begin{smallmatrix} +0.00 \\ -0.10 \end{smallmatrix}$	3.30 ± 0.15	9.40 ± 0.20	3.70 ± 0.10	1
EP10B	11.50 ± 0.30	7.65 ± 0.20	5.20 ± 0.10	3.30 ± 0.15	9.40 ± 0.20	3.70 ± 0.10	1
EP13	12.50 ± 0.30	8.80 ± 0.20	6.50 $\begin{smallmatrix} +0.00 \\ -0.15 \end{smallmatrix}$	4.35 ± 0.15	10.10 ± 0.20	4.60 ± 0.10	1
EP13.3	13.30 ± 0.20	5.50 ± 0.15	6.50 ± 0.10	5.60 ± 0.10	10.80 ± 0.20	4.55 ± 0.10	2
EP15.2	15.20 ± 0.30	11.00 ± 0.20	7.10 ± 0.15	5.40 ± 0.20	11.00min	4.60 ± 0.15	1
EP17	18.00 ± 0.40	11.00 ± 0.20	8.40 ± 0.20	5.68 ± 0.18	12.00 ± 0.40	5.65 ± 0.15	1

## ■ EFFECTIVE PARAMETERS

CORES	EFFECTIVE PARAMETERS				
	$C_i(\text{mm}^{-1})$	$L_e(\text{mm})$	$A_e(\text{mm}^2)$	$V_e(\text{mm}^3)$	$Wt(\text{g/set})$
EP5	3.20	9.70	3.00	28.70	0.46
EP5-1	3.60	10.80	3.00	32.40	0.46
EP7	1.52	15.70	10.30	162.00	1.42
EP7-1	1.68	17.96	10.66	191.45	1.42
EP7C	1.44	15.37	10.67	164.00	1.44
EP10	1.70	19.20	11.30	217.00	2.92
EP10B	1.70	19.20	11.30	216.96	2.76
EP13	1.24	24.20	19.50	472.00	4.86
EP13.3	1.40	24.42	17.35	423.68	3.14
EP15.2	0.81	24.82	30.76	763.41	4.50
EP17	0.84	28.70	34.00	970.00	11.60

## ■ ELECTRICAL CHARACTERISTICS

CORES	AL + 30% - 20% (nH/N <sup>2</sup> )					AL + 40% - 30% (nH/N <sup>2</sup> )				
	P4	P5	N42	A05	A05(L)	A101	A101(L)	A121	A121(L)	A151(L)
EP5	400 ± 25%	380 ± 25%	500 ± 25%			600	1900	650	2050	1852min
EP5-1	380 ± 25%		450 ± 25%				1850			
EP7	1100	1000	1350 ± 25%	2000	3500	2050	5200	2100	3900min	4800min
EP7-1						1980				
EP7C	1100									
EP10	1000	950	1270 ± 25%	2000	3400	2050 ± 30%	4800	2150	3950min	4800min
EP10B	1000									
EP13	1600	1430		2800	4400	3300	7000	3500	5800min	7000min
EP13.3										6446min
EP15.2						5160 (ref)				
EP17	2500		3060 ± 25%	3970 ± 25%			11000		12600	

## Material Characteristics (1)

	Symbol	Unit	Measuring Conditions			Low Loss Materials			
			Freq.	Flux den.	Temp.	P4	P41	P42	P48
Initial Permeability	$\mu_i$		$\leq 10\text{kHz}$	0.25mT	25°C	2500 $\pm$ 25%	2400 $\pm$ 25%	1800 $\pm$ 25%	2500 $\pm$ 25%
Amplitude Permeability	$\mu_a$		25kHz	200mT	25°C	> 4500	> 4500	> 5000	> 5000
					100°C	> 4500	> 4500	> 5000	> 5000
Power Loss	Pv	KW/m <sup>3</sup>	25kHz	200mT	25°C	105	125	125	
					100°C	55	50	50	
			100kHz	200mT	25°C	700	650	750	550
					100°C	450	350	350	250
			300kHz	100mT	25°C	660	820	900	500
					100°C	430	500	500	300
			500kHz	50mT	25°C	380	400	450	250
					100°C	330	300	300	200
Saturation Flux Density	Bms	mT	10kHz	H = 1200A/m	25°C	480	495	520	515
					100°C	380	395	420	410
Remanence	Brms	mT	10kHz	H = 1200A/m	25°C	100	170	200	150
					100°C	70	70	70	60
Coercivity	Hc	A/m	10kHz	H = 1200A/m	25°C	10	11	12	13
					100°C	6	6	6	7
Hysteresis Material Constant	$\eta_B$	10 <sup>-6</sup> /mT	10kHz	1.5-3.0mT	25°C	< 1.2	< 1	< 1	< 1
Disaccommodation Factor	D <sub>r</sub>	10 <sup>-6</sup>	10kHz	< 0.25 mT	25°C	< 2	< 2	< 2	< 2
Curie Temperature	T <sub>c</sub>	°C				220	230	240	220
Resistivity	$\rho$	$\Omega\text{m}$				5.50	4.00	8.00	5.00
Density	d	g/cm <sup>3</sup>				4.80	4.85	4.90	4.90