

# SPECIFICATION APPROVAL

## Series of soft ferrite cores

Product Name Of Customer (Material) :

FERRITE CORE EE30 N30

Product Name Of Ours (Material) :

FERRITE CORE EE30 (NH2B)

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CUSTOMER: ELEMOM

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APPROVED BY :

DRAWN	王士杰	APPROVED	严建强	DATE	2006.08.04
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## NH2B Material Characteristics

Initial permeability $\mu_i$	$2300 \pm 25\%$		
Saturation flux density $B_s$ (mT) 1194A/m	25°C	510	
	100°C	390	
Residual flux density $B_r$ (mT)	25°C	95	
	100°C	70	
Coercivity $H_c$ (A/m)	25°C	14.3	
	100°C	9	
Power Loss $P_v$ mw/cm <sup>3</sup>		25kHz, 200mT	100kHz, 200mT
	25°C	130	660
	60°C	90	500
	100°C	100	410
Curie temp. $T_c$ (°C)	>215°C		
Resistivity $\rho$ ( $\Omega \cdot m$ )	6.5		
Density $d$ (g/cm <sup>3</sup> )	4.8		

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## Electromagnetic And Mechanical Property

1.

Inductance L or Inductance Factor  $A_L$  Value  $A_L$   $L = 18.5 \text{ mH} \pm 25\%$

Inductance  $A_L$

$A_L = 1850 \pm 25\% \text{ nH/N}^2$

Inductance Factor

Test Conditions And Equipment

Test Temperature

$T = 25 \pm 2^\circ\text{C}$

Test Frequency And Voltage

$f = 1 \text{ kHz}; V = 0.25 \text{ V}$

$\phi = 0.35 \text{ mm}$

Test Coil

$N = 100 \text{ Ts}$

Air Gap Thickness

NO Gap

Test Equipment

HP4284A

2. Power Loss

$P_l \leq 720 \text{ mW/cm}^3(T_2, f_2, B_2)$

Power Loss weight Density

$P_g \leq \text{--- mW/cm}^3$

Test Conditions And Equipment

Test Temperature

$T_1 = 25 \pm 2^\circ\text{C}$

$T_2 = 100 \pm 2^\circ\text{C}$

Test Frequency

$f_1 = 16 \text{ kHz}$

$f_2 = 100 \text{ kHz}$

Peak Flux Density

$B_1 = 150 \text{ mT}$

$B_2 = 200 \text{ mT}$

Test Coil

$\phi = 0.35 \text{ mm}$

$N = 20 \text{ Ts}$

Test Equipment

CH258 Analyzer

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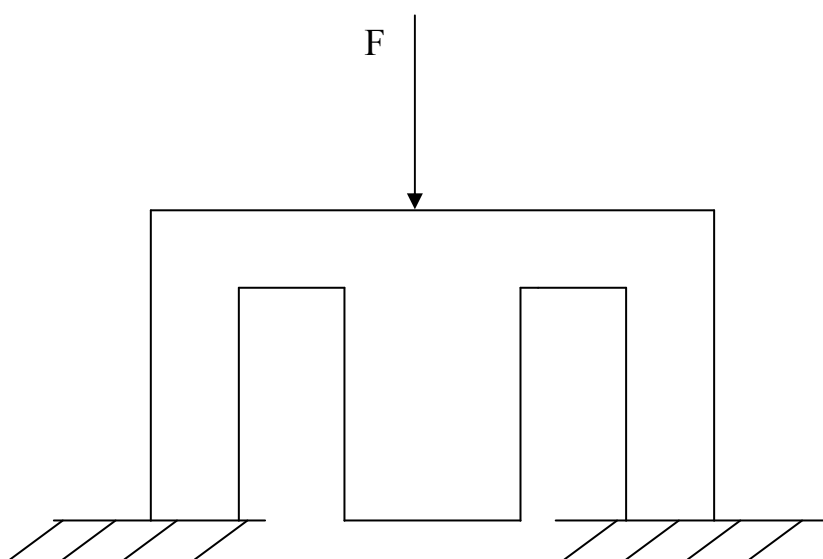
3.

Mechanical Strength

$F \geq \text{-- N}$

Test Equipment

YSJ2000(20mm/min)

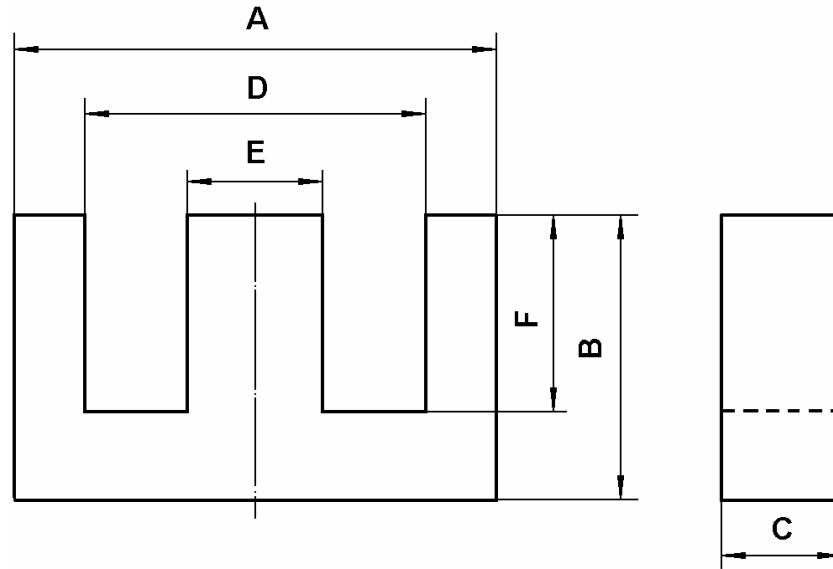


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## APPERANCE REQUIREMENT

1. The surface of the core should be clean|, smooth and no loose area, the color must be showing difference and the ground surface must be flat.
2. The chips on the ground surface , its length shouldn't be more than 1/6 length of its direction extend line on the same surface, The chips on the other surface, its length shouldn't be more than 1/5 length of its direction extend line on the same surface. The depth of all the chips shouldn't be more than 0.5mm, the quantity of the chips shouldn't be more than 2 points. The area of the chips on the ground surface shouldn't be more than  $1.0\text{mm}^2$ , the area of the chips on the other surface shouldn't be more than  $2.0\text{mm}^2$ .
3. The crack on the core, its width shouldn't be more than 0.1mm,its length shouldn't be more than 1/5 length of its direction extend line on the same surface. The quantity of the crack on the core shouldn't be more than 1 point and this crack shouldn't influence any electromagnetic and mechanical strength properties.
4. There shouldn't be any thorns on the core which influence the practical use of the core.
5. Inspection equipment: Use eyesight (or sample compare) and slide gauge(high precision, not more than 0.02mm).

## OUTLINE AND DIMENSIONS



A: $30.1 \pm 0.6$     B: $15.0 \pm 0.3$     C: $7.0 \pm 0.3$

D:19.5min    E: $6.95 \pm 0.3$     F: $10.3 \pm 0.3$

Core Factor C1 (mm <sup>-1</sup> )	Effective Length Le (mm)	Effective Area Ae (mm <sup>2</sup> )	Effective Volume Ve (mm <sup>3</sup> )	Weight (g/set)
1.11	66.0	60.0	3950	22.0

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## PACKING

1. Product shall be placed in styrol foam box.
2. Styrol foam box shall be placed into carton box。 Gap cores styrol shall be put in carton box separately against no gap core.

## INSPECTION RULE

1. Products inspection should be done according to the rules of one sampling plan which included in the standard of GB2828 “sampling procedures and tables for lot-by-lot inspection by attributes” .The inspection level II, The qualified level of electromagnetic characteristics:  $AQL=0.65$ , The other items ‘ $AQL=1.5$ ’ .

The customer should finish the work of cores inspection in 3 months after received the cores and please send the results of cores inspection to the supplier in report as soon as possible, if no report given to the supplier, the core would be treat as qualified products.

## NOTE

1. Any revise to the contents in this Approval Application must be confirmed by the supplier and the customer, otherwise the revise is invalid.
2. When the customer confirmed this Approval Application (total 4 books), please send 2 books to the supplier.