



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# DATA SHEET

**I93/28/30**

U, I cores and accessories

Supersedes data of September 2004

2008 Sep 01



**FERROXCUBE**  
A YAGEO COMPANY

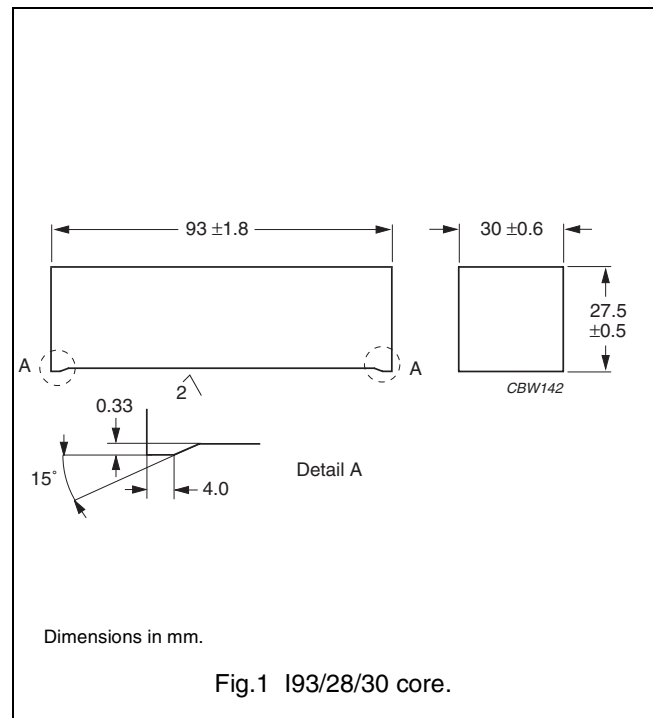
**CORE SETS**

**Effective core parameters in combination with U93/52/30**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.251	mm <sup>-1</sup>
$V_e$	effective volume	175000	mm <sup>3</sup>
$l_e$	effective length	210	mm
$A_e$	effective area	836	mm <sup>2</sup>
m	mass of core	≈ 370	g

**Effective core parameters in combination with U93/76/30**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.307	mm <sup>-1</sup>
$V_e$	effective volume	217000	mm <sup>3</sup>
$l_e$	effective length	258	mm
$A_e$	effective area	840	mm <sup>2</sup>
m	mass of core	≈ 370	g



**Core data**

GRADE	$A_L$ (nH)	$\mu_e$	TYPE NUMBER
3C90	10700 ±25% <sup>(1)</sup>	≈ 2150	I93/28/30-3C90
	8700 ±25% <sup>(2)</sup>	≈ 2150	
3C94	10700 ±25% <sup>(1)</sup>	≈ 2150	I93/28/30-3C94
	8700 ±25% <sup>(2)</sup>	≈ 2150	

**Notes**

1. Measured in combination with "U93/52/30".
2. Measured in combination with "U93/76/30".

**Properties of core sets under power conditions**

GRADE	B (mT) at	CORE LOSS (W) at	
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; B = 200 mT; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C
3C90	≥330	≤ 24 <sup>(1)</sup>	≤ 31 <sup>(1)</sup>
	≥330	≤ 28 <sup>(2)</sup>	≤ 38 <sup>(2)</sup>
3C94	≥330	–	≤ 24 <sup>(1)</sup>
	≥330	–	≤ 30 <sup>(2)</sup>

**Notes**

1. Measured in combination with "U93/52/30".
2. Measured in combination with "U93/76/30".




**DATA SHEET STATUS DEFINITIONS**

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

**DISCLAIMER**

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**PRODUCT STATUS DEFINITIONS**

STATUS	INDICATION	DEFINITION
<b>Prototype</b>		These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
<b>Support</b>		These products are <b>not</b> recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.