

# DATA SHEET

**E20/14/5**  
**EI cores**

Supersedes data of September 2004

2008 Sep 01

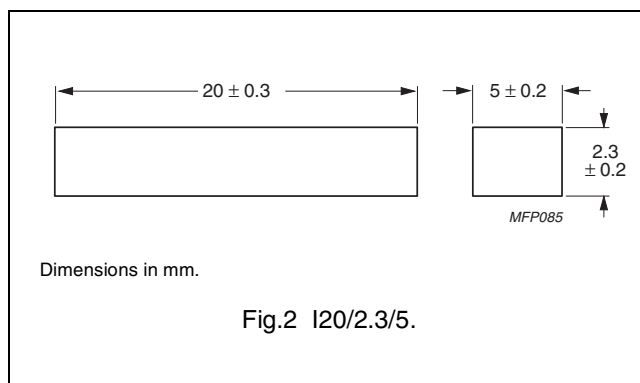
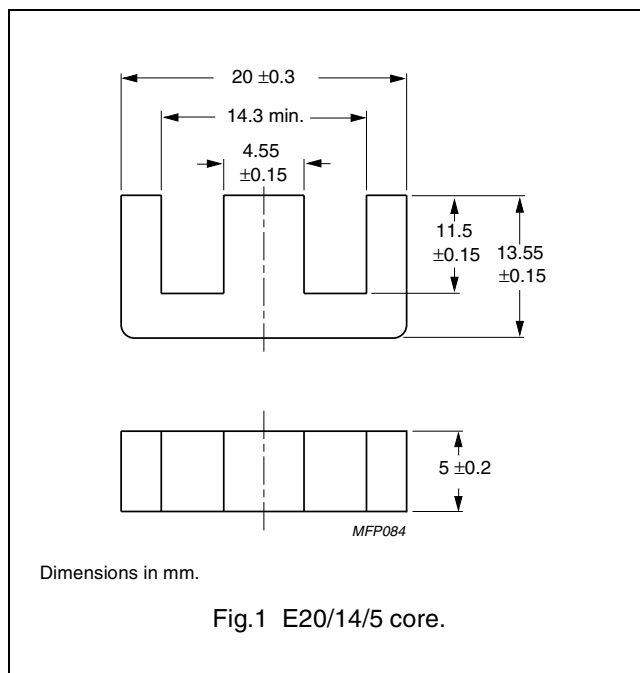
**CORES**

**Effective core parameters of an E / I combination**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.76	mm <sup>-1</sup>
$V_e$	effective volume	913	mm <sup>3</sup>
$l_e$	effective length	40.1	mm
$A_e$	effective area	22.8	mm <sup>2</sup>
$A_{min}$	minimum area	22.0	mm <sup>2</sup>
m	mass of E core	≈ 3.8	g
m	mass of I core	≈ 1.1	g

**Ordering information for I cores**

GRADE	TYPE NUMBER
3C90	I20/2.3/5-3C90



**Core halves for use in combination with an I core**

$A_L$  measured in combination with an I core, clamping force for  $A_L$  measurements  $20 \pm 10$  N;

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP ( $\mu$ m)	TYPE NUMBER
3C90	$1290 \pm 25 \%$	≈ 1810	≈ 0	E20/14/5-3C90

**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; $\hat{B} = 200$ mT; T = 100 °C	f = 100 kHz; $\hat{B} = 100$ mT; T = 100 °C
E20/14/5+I20/2.3/5-3C90	≥ 320	≤ 0.11	≤ 0.11




**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**

**Life support applications** — These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Ferroxcube customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ferroxcube for any damages resulting from such application.

**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.