DATA SHEET

E8.8/4.1/2
E cores and accessories

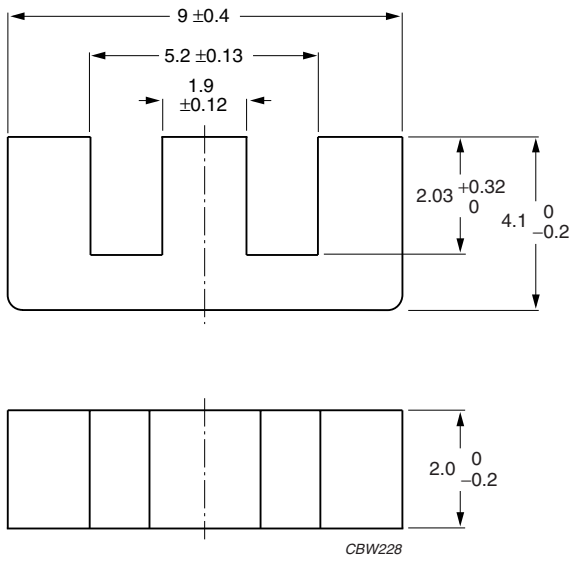
Supersedes data of September 2004 2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	3.13	mm^{-1}
V_e	effective volume	78	mm^3
l_e	effective length	15.6	mm
A_e	effective area	5.0	mm^2
A_{min}	minimum area	3.6	mm^2
m	mass of core half	≈ 0.25	g



Dimensions in mm.

Fig.1 E8.8/4.1/2 core half.

Core halves

A_L measured in combination with a non-gapped core half, clamping force for A_L measurements, 5 ±2 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C96 des	480 ±25%	≈ 1190	≈ 0	E8.8/4.1/2-3C96
3F3	460 ±25%	≈ 1140	≈ 0	E8.8/4.1/2-3F3
3F35 des	380 ±25%	≈ 940	≈ 0	E8.8/4.1/2-3F35
3F4 des	280 ±25%	≈ 695	≈ 0	E8.8/4.1/2-3F4

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 = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C96	≥340	≤ 0.0055	≤ 0.032	≤ 0.014
3F3	≥300	≤ 0.01	–	≤ 0.014
3F35	≥300	–	–	≤ 0.007
3F4	≥250	–	–	–

Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 500 kHz; $\hat{B}$ = 50 mT; T = 100 °C	f = 500 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 1 MHz; $\hat{B}$ = 30 mT; T = 100 °C	f = 3 MHz; $\hat{B}$ = 10 mT; T = 100 °C
3C96	≥340	≤ 0.029	–	–	–
3F3	≥300	–	–	–	–
3F35	≥300	≤ 0.011	≤ 0.082	–	–
3F4	≥250	–	–	≤ 0.023	≤ 0.037

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.

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PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype	prot	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.
Design-in	des	These products are recommended for new designs.
Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support	sup	These products are **not** recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.