DATA SHEET

P14/8/I
P cores and accessories

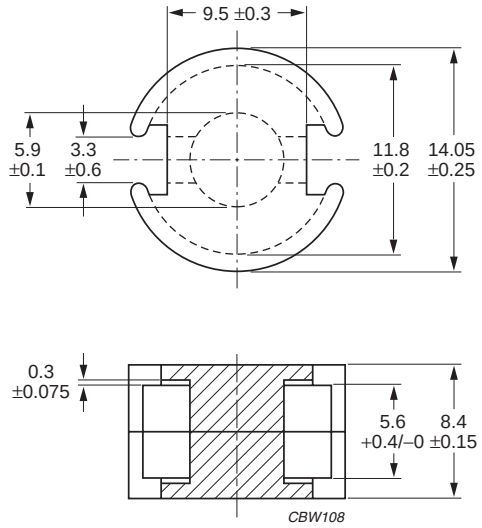
Supersedes data of February 2002 2004 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.700	mm^{-1}
V_e	effective volume	628	mm^3
l_e	effective length	21.0	mm
A_e	effective area	29.9	mm^2
A_{min}	minimum area	23.6	mm^2
m	mass of set	≈ 3.5	g



Dimensions in mm.

Fig.1 P14/8/I core set.

Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 15 ±5 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C81	100 ±3%	≈ 56	≈ 470	P14/8/I-3C81-A100
	160 ±3%	≈ 89	≈ 270	P14/8/I-3C81-A160
	250 ±3%	≈ 140	≈ 160	P14/8/I-3C81-A250
	315 ±5%	≈ 176	≈ 120	P14/8/I-3C81-A315
	400 ±5%	≈ 224	≈ 95	P14/8/I-3C81-A400
	2900 ±25%	≈ 1620	≈ 0	P14/8/I-3C81
3C91 des	2900 ±25%	≈ 1620	≈ 0	P14/8/I-3C91
3F3	100 ±3%	≈ 56	≈ 470	P14/8/I-3F3-A100
	160 ±3%	≈ 89	≈ 270	P14/8/I-3F3-A160
	250 ±3%	≈ 140	≈ 160	P14/8/I-3F3-A250
	315 ±5%	≈ 176	≈ 120	P14/8/I-3F3-A315
	400 ±5%	≈ 224	≈ 95	P14/8/I-3F3-A400
	2400 ±25%	≈ 1340	≈ 0	P14/8/I-3F3

Core sets for filter applications

Clamping force for A_L measurements, 15 ±5 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3B46 des	3600 ±25%	≈ 2010	≈ 0	P14/8/I-3B46

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	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C81	≥320	≤ 0.15	–	–	–
3C91	≥315	–	≤ 0.032[1]	≤ 0.24[1]	–
3F3	≥315	–	≤ 0.07	–	≤ 0.12

Note

1. Measured at 60 °C.

BOBBINS AND ACCESSORIES

For coil formers, winding data and mounting parts, see data sheet, *"P14/8"*.

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
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