DATA SHEET

ER41/7.6/32
Planar ER cores and accessories

New data

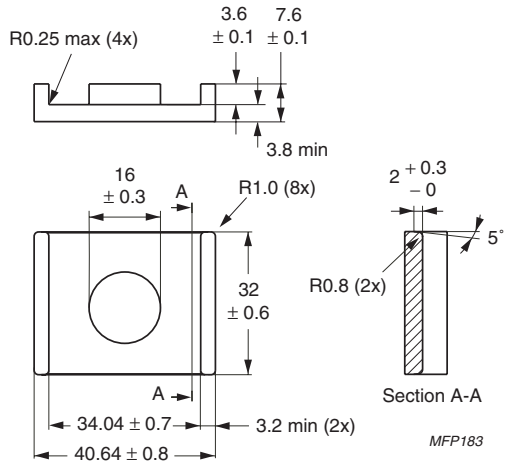
2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.253	mm^{-1}
V_e	effective volume	12900	mm^3
l_e	effective length	57.0	mm
A_e	effective area	225	mm^2
A_{min}	minimum area	201	mm^2
m	mass of core half	≈ 37	g



Dimensions in mm.

Fig.1 ER41/7.6/32 core half.

Core halves for general purpose transformers and power applications

Clamping force for A_L measurements, 100 ± 25 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C92 des	6500 ± 25 %	≈ 1310	≈ 0	ER41/7.6/32-3C92
3C93 des	7500 ± 25 %	≈ 1510	≈ 0	ER41/7.6/32-3C93
3C95 des	11120 ± 25 %	≈ 2240	≈ 0	ER41/7.6/32-3C95
3C96 des	8100 ± 25 %	≈ 1630	≈ 0	ER41/7.6/32-3C96
3F3	8100 ± 25 %	≈ 1630	≈ 0	ER41/7.6/32-3F3

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 = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C	f = 500 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C92	≥ 370	≤ 1.3	–	≤ 7.8	–	–
3C93	≥ 320	≤ 1.3 (1)	–	≤ 7.8 (1)	–	–
3C95	≥ 320	–	≤ 8.94	≤ 8.51	–	–
3C96	≥ 340	≤ 0.92	–	≤ 5.88	–	≤ 5.58
3F3	≥ 300	≤ 1.7	–	–	≤ 2.5	–

1. Measured at 140 °C.

MOUNTING INFORMATION

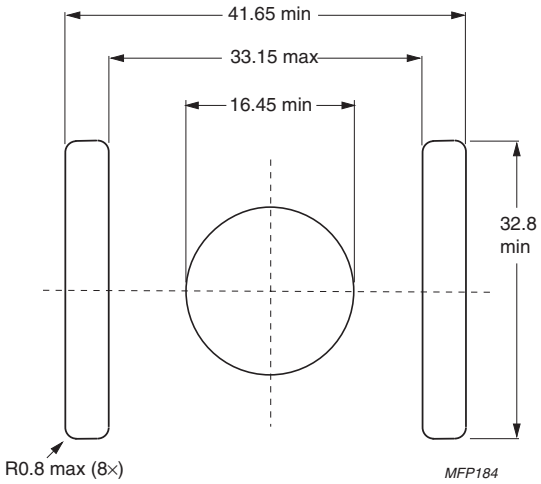


Fig.2 Recommended PCB cut-out for ER41/7.6/32 cores.

Winding data for ER41/7.6/32 planar core

WINDING AREA (mm^2)	AVERAGE TRACK LENGTH (mm)	FOOTPRINT AREA (mm^2)
64.9	78.6	1316

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

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