FERROXCUBE

DATA SHEET

ER64/13/51 Planar ER cores and accessories

New data 2008 Sep 01

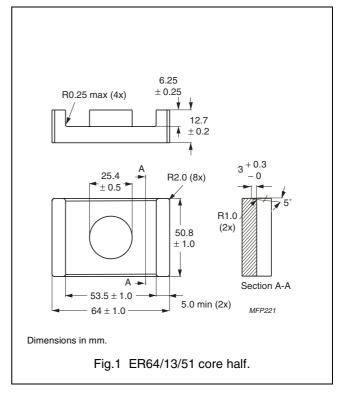


ER64/13/51

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1) 0.164 n		mm ⁻¹
V _e	effective volume 52600 m		mm ³
l _e	effective length	93.0	mm
A _e	effective area 566 m		mm ²
A _{min}	minimum area 507 mi		mm ²
m	mass of core half ≈ 152 g		g



Core halves for general purpose transformers and power applications

Clamping force for A_L measurements, 200 \pm 25 N.

GRADE	A _L (nH)	$\mu_{\mathbf{e}}$	AIR GAP (μm)	TYPE NUMBER
3C92 des	10600 ± 25 %	≈ 1390	≈ 0	ER64/13/51-3C92
3C93 des	12300 ± 25 %	≈ 1610	≈ 0	ER64/13/51-3C93
3C95 des	18920 ± 25 %	≈ 2475	≈ 0	ER64/13/51-3C95
3C96 des	13400 ± 25 %	≈ 1760	≈ 0	ER64/13/51-3C96
3F3	13400 ± 25 %	≈ 1760	≈ 0	ER64/13/51-3F3

Properties of core sets under power conditions

	B (mT) at		С	ORE LOSS (W)	at	
GRADE	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 25 °C	f = 100 kHz; B = 200 mT; T = 100 °C	f = 400 kHz; B = 50 mT; T = 100 °C	f = 500 kHz; B = 50 mT; T = 100 °C
3C92	≥ 370	≤ 5.3	_	≤ 32.4	_	_
3C93	≥ 320	≤ 5.3 ⁽¹⁾	_	≤ 32.4 ⁽¹⁾	_	_
3C95	≥ 320	_	≤ 36.5	≤ 34.7	_	_
3C96	≥ 340	≤ 3.71	_	≤ 24	_	≤ 22.7
3F3	≥ 300	≤ 6.3			≤ 10.2	_

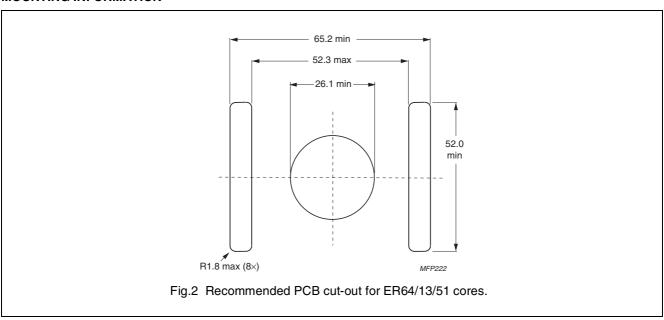
1. Measured at 140 °C.

2008 Sep 01 2

Planar ER cores and accessories

ER64/13/51

MOUNTING INFORMATION



Winding data for ER64/13/51 planar core

WINDING AREA (mm²)	AVERAGE TRACK LENGTH (mm)	FOOTPRINT AREA (mm²)
176	124	3282

2008 Sep 01 3

Planar ER cores and accessories

ER64/13/51

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	
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.	

2008 Sep 01 4