

DATA SHEET

EQ25

EQ cores and accessories

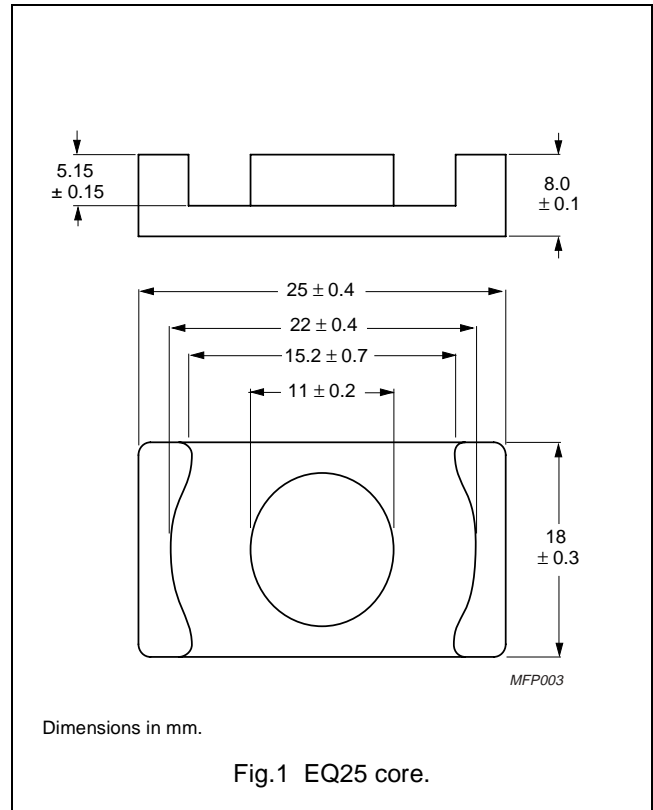
Supersedes data of February 2002

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CORES

Effective core parameters of a set of EQ cores

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.414	mm ⁻¹
V_e	effective volume	4145	mm ³
l_e	effective length	41.4	mm
A_e	effective area	100	mm ²
A_{min}	minimum area	95.0	mm ²
m	mass of core half	≈ 11	g



Core halves for general purpose transformers and power applications

Clamping force for A_L measurements, 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C94	$4800 \pm 25 \%$	≈ 1580	≈ 0	EQ25-3C94
3C96	$4400 \pm 25 \%$	≈ 1450	≈ 0	EQ25-3C96
3F35	$3350 \pm 25 \%$	≈ 1100	≈ 0	EQ25-3F35
3F4	$2300 \pm 25 \%$	≈ 758	≈ 0	EQ25-3F4
3F45	$2300 \pm 25 \%$	≈ 758	≈ 0	EQ25-3F45

Properties of core sets under power conditions

CORE COMBINATION	B (mT) at	CORE LOSS (W) at		
	H = 250 A/m; f = 10 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 = 500 kHz; \hat{B} = 50 mT; T = 100 °C
EQ+EQ25-3C94	≥ 320	≤ 0.37	≤ 2.5	–
EQ+EQ25-3C96	≥ 340	≤ 0.28	≤ 1.9	≤ 1.5
EQ+EQ25-3F35	≥ 300	–	–	≤ 0.56

Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; \hat{B} = 100 mT; T = 100 °C	f = 1 MHz; \hat{B} = 30 mT; T = 100 °C	f = 1 MHz; \hat{B} = 50 mT; T = 100 °C	f = 3 MHz; \hat{B} = 10 mT; T = 100 °C
EQ+EQ25-3F35	≥ 300	≤ 4.3	–	–	–
EQ+EQ25-3F4	≥ 300	–	≤ 1.25	–	≤ 2.0
EQ+EQ25-3F45	≥ 300	–	≤ 0.83	≤ 2.1	≤ 1.5




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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Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support		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.