

# DATA SHEET

## **EFD25** EFD cores and accessories

Product specification  
File under Magnetic Products, MA01

1997 Nov 21

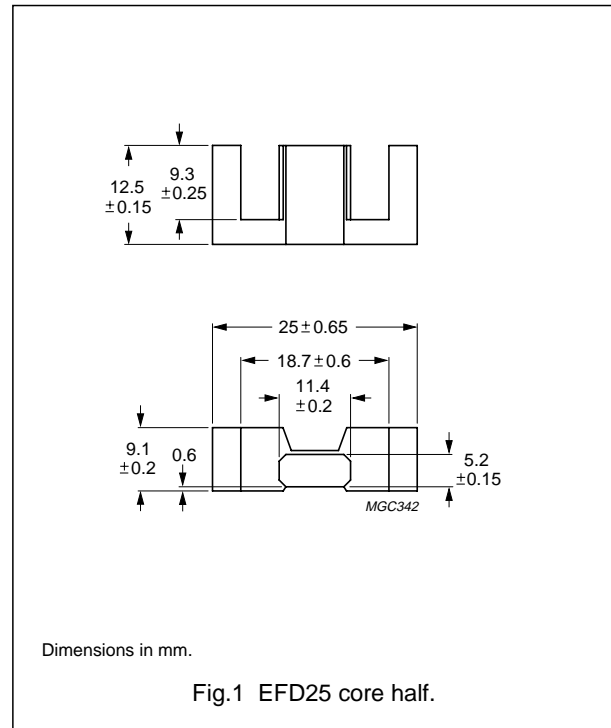
## EFD cores and accessories

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## CORES

## Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.00	$\text{mm}^{-1}$
$V_e$	effective volume	3300	$\text{mm}^3$
$l_e$	effective length	57.0	mm
$A_e$	effective area	58.0	$\text{mm}^2$
$A_{\min}$	minimum area	55	$\text{mm}^2$
m	mass of core half	$\approx 8$	g



## Core halves

Gapped cores are available on request. Clamping force  $40 \pm 20$  N.

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP ( $\mu\text{m}$ )	TYPE NUMBER
3C30 <small>des</small>	$1800 \pm 25\%$	$\approx 1450$	$\approx 0$	EFD25-3C30
3C85	$2200 \pm 25\%$	$\approx 1780$	$\approx 0$	EFD25-3C85
3C90 <small>des</small>	$2200 \pm 25\%$	$\approx 1780$	$\approx 0$	EFD25-3C90
3F3 <small>des</small>	$2000 \pm 25\%$	$\approx 1600$	$\approx 0$	EFD25-3F3
3F4 <small>des</small>	$1000 \pm 25\%$	$\approx 800$	$\approx 0$	EFD25-3F4

## 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 = 25 kHz; $\dot{B} = 200$ mT/s; T = 100 °C	f = 100 kHz; $\dot{B} = 100$ mT/s; T = 100 °C	f = 400 kHz; $\dot{B} = 50$ mT/s; T = 100 °C	f = 1 MHz; $\dot{B} = 30$ mT/s; T = 100 °C	f = 3 MHz; $\dot{B} = 10$ mT/s; T = 100 °C
3C30	$\geq 360$	$\leq 0.35$	$\leq 0.38$	–	–	–
3C85	$\geq 320$	$\leq 0.50$	$\leq 0.60$	–	–	–
3C90	$\geq 330$	$\leq 0.35$	$\leq 0.38$	–	–	–
3F3	$\geq 315$	–	$\leq 0.38$	$\leq 0.66$	–	–
3F4	$\geq 300$	–	–	–	$\leq 0.70$	$\leq 1.10$

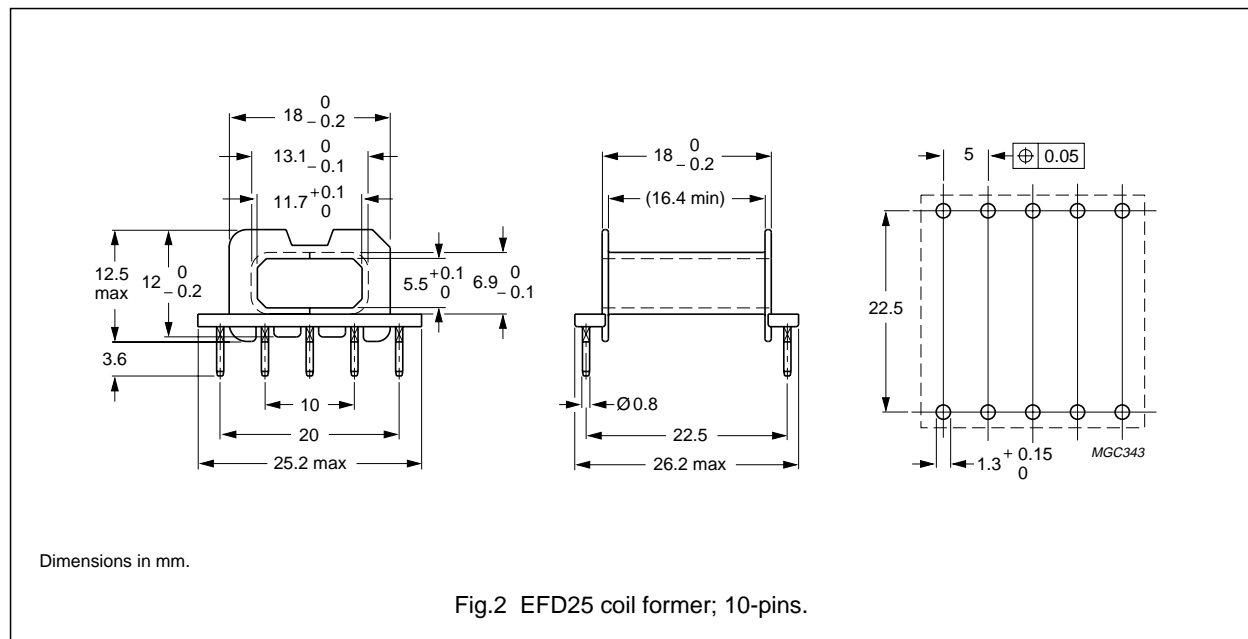
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## COIL FORMERS

## General data

PARAMETER	SPECIFICATION
Coil former material	phenolformaldehyde (PF), glass-reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E167521(M)
Pin material	copper-tin alloy (CuSn), tin-lead alloy (SnPb) plated
Maximum operating temperature	180 °C, "IEC 85" class H
Resistance to soldering heat	"IEC 68-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	"IEC 68-2-20", Part 2, Test Ta, method 1



## Winding data for EFD25 coil former with 10-pins

NUMBER OF SECTIONS	WINDING AREA (mm <sup>2</sup> )	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER
1	40.2	16.4	46.4	CSH-EFD25-1S-10P

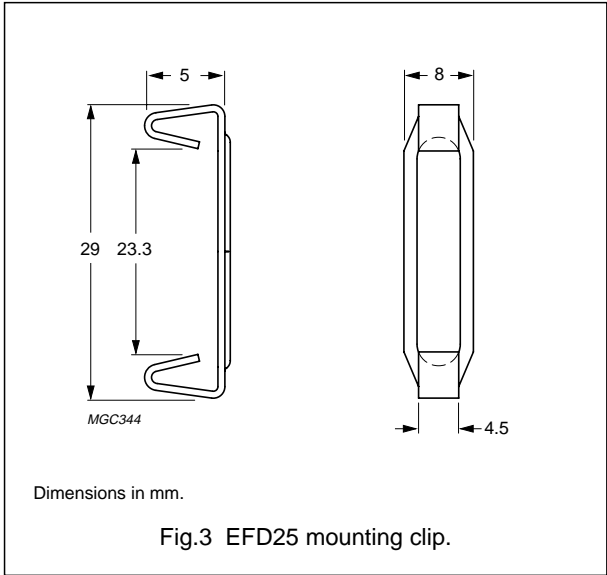
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**MOUNTING PARTS**

**General data**

ITEM	REMARKS	FIGURE	TYPE NUMBER
Clip	stainless steel (CrNi); clamping force $\approx 30$ N	3	CLI-EFD25



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**DEFINITIONS**

<b>Data sheet status</b>	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
<b>Application information</b>	
Where application information is given, it is advisory and does not form part of the specification.	

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