

DATA SHEET

EFD25 EFD cores and accessories

Product specification
File under Magnetic Products, MA01

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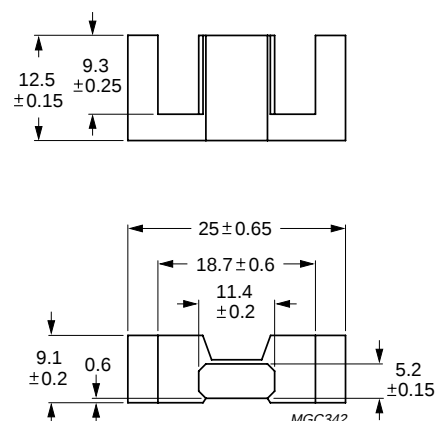
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CORES

Effective core parameters

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



Dimensions in mm.

Fig.1 EFD25 core half.

Core halves

Gapped cores are available on request. Clamping force 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C30 des	$1800 \pm 25\%$	≈ 1450	≈ 0	EFD25-3C30
3C85	$2200 \pm 25\%$	≈ 1780	≈ 0	EFD25-3C85
3C90 des	$2200 \pm 25\%$	≈ 1780	≈ 0	EFD25-3C90
3F3 des	$2000 \pm 25\%$	≈ 1600	≈ 0	EFD25-3F3
3F4 des	$1000 \pm 25\%$	≈ 800	≈ 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; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C	f = 1 MHz; $\hat{B}$ = 30 mT; T = 100 °C	f = 3 MHz; $\hat{B}$ = 10 mT; T = 100 °C
3C30	≥ 360	≤ 0.35	≤ 0.38	—	—	—
3C85	≥ 320	≤ 0.50	≤ 0.60	—	—	—
3C90	≥ 330	≤ 0.35	≤ 0.38	—	—	—
3F3	≥ 315	—	≤ 0.38	≤ 0.66	—	—
3F4	≥ 300	—	—	—	≤ 0.70	≤ 1.10

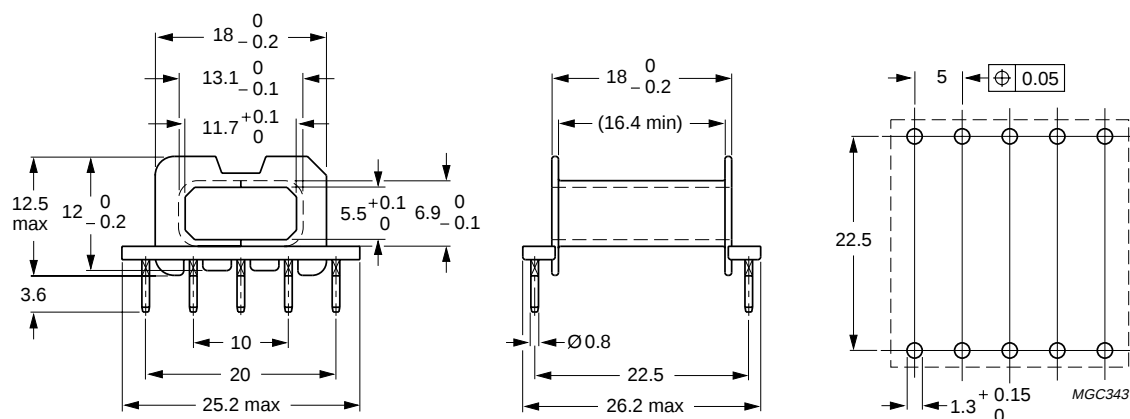
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COIL FORMERS

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



Dimensions in mm.

Fig.2 EFD25 coil former; 10-pins.

Winding data for EFD25 coil former with 10-pins

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

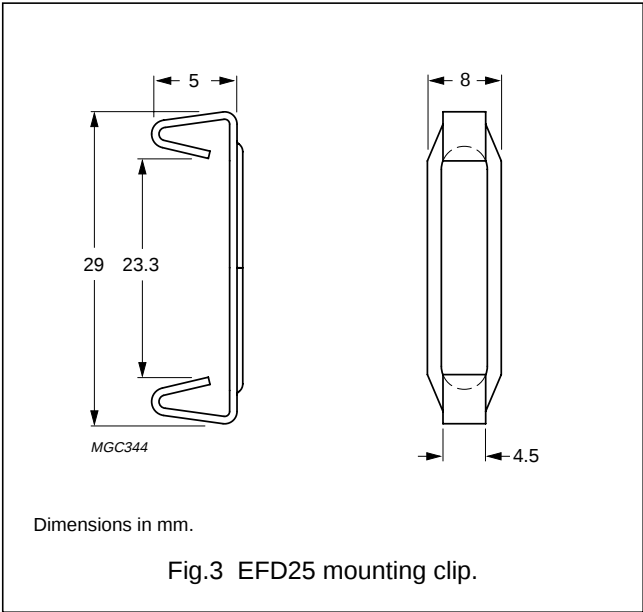
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MOUNTING PARTS

General data

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



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DEFINITIONS

Data sheet status	
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.
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

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