FERRITE CERAMICS

DATA SHEET

EFD25 EFD cores and accessories

Product specification Supersedes data of November 1997 File under Ferrite Ceramics, MA01 2000 Apr 20





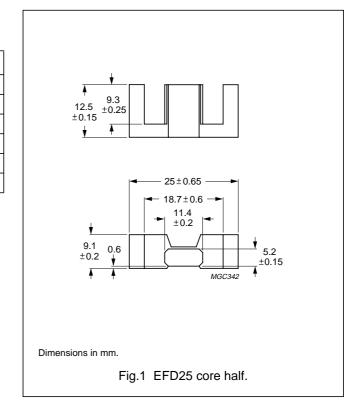
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CORES

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
Σ(I/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



Core halves

Clamping force for A_L measurements, 40 ± 20 N. Gapped cores are available on request.

GRADE	A _L (nH)	$\mu_{\mathbf{e}}$	AIR GAP (μm)	TYPE NUMBER
3C90	2200 ±25%	≈1780	≈0	EFD25-3C90
3F3	2000 ±25%	≈1600	≈0	EFD25-3F3
3F4 des	1000 ±25%	≈800	≈0	EFD25-3F4

Properties of core sets under power conditions

	B (mT) at	CORE LOSS (W) at				
GRADE	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; B = 200 mT; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 400 kHz; B = 50 mT; T = 100 °C	f = 1 MHz; B = 30 mT; T = 100 °C	f = 3 MHz; B = 10 mT; T = 100 °C
3C90	≥330	≤0.35	≤0.38	_	_	_
3F3	≥315	_	≤0.38	≤0.66	_	_
3F4	≥300	_	_	_	≤0.70	≤1.10

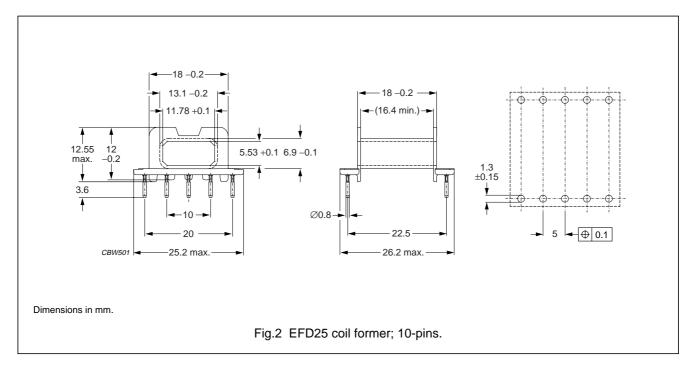
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COIL FORMERS

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 60085", class H
Resistance to soldering heat	"IEC 60068-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1: 235 °C, 2 s



Winding data for EFD25 coil former with 10-pins

NUMBER OF SECTIONS	WINDING AREA (mm²)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER	
1	40.2	16.4	46.4	CSH-EFD25-1S-10P; see note 1	

Note

1. Also available with post-inserted pins.

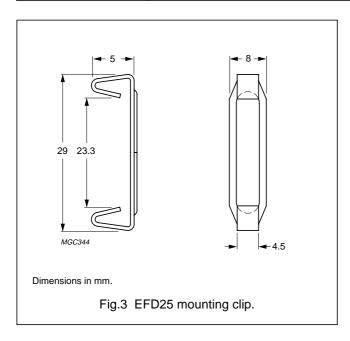
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MOUNTING PARTS

General data

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



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DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Philips Components 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. Philips Components 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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Preferred		These products are recommended for use in current designs and are available via our sales channels.	
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