

DATA SHEET

ETD59

ETD cores and accessories

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

1999 Dec 23

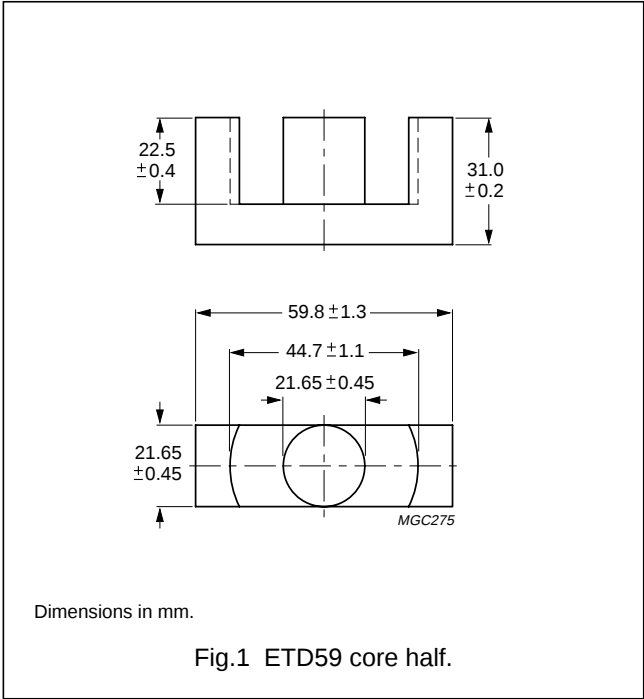
ETD cores and accessories

ETD59

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.378	mm ⁻¹
V_e	effective volume	51500	mm ³
l_e	effective length	139	mm
A_e	effective area	368	mm ²
A_{min}	minimum area	360	mm ²
m	mass of core half	≈130	g



Core halves

Clamping force for A_L measurements, 70 ± 20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	$6000 \pm 25\%$	≈1950	≈0	ETD59-3C90
3F3	$5600 \pm 25\%$	≈1800	≈0	ETD59-3F3

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
3C90	≥330	≤6.2	≤7.3	—
3F3	≥320	—	≤6.7	≤12.8

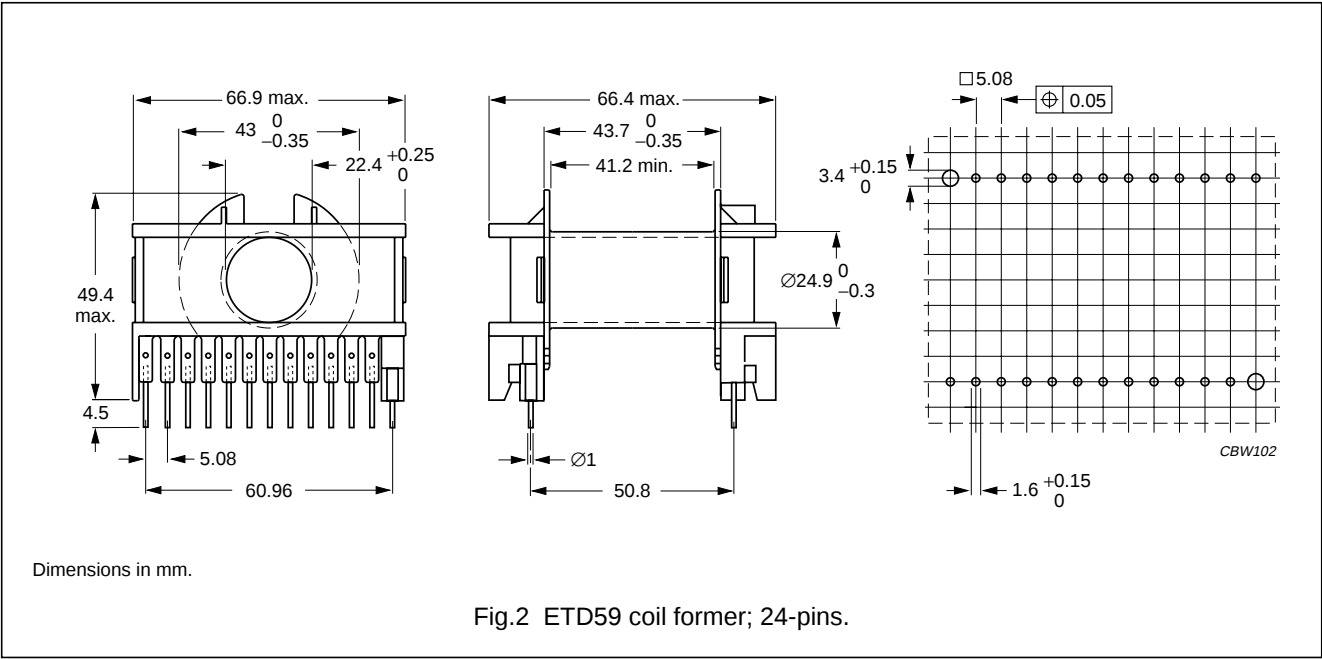
ETD cores and accessories

ETD59

COIL FORMER

General data 24-pins ETD59 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephthalate (PBT), glass-reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E41613(M)
Pin material	copper-tin alloy (CuSn), tin-lead alloy (SnPb) plated
Maximum operating temperature	155 °C, "IEC 60085" class F
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



Winding data for 24-pins ETD59 coil former

NUMBER OF SECTIONS	WINDING AREA (mm ²)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER
1	366	41.2	106	CPH-ETD59-1S-24P

ETD cores and accessories

ETD59

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD59

