

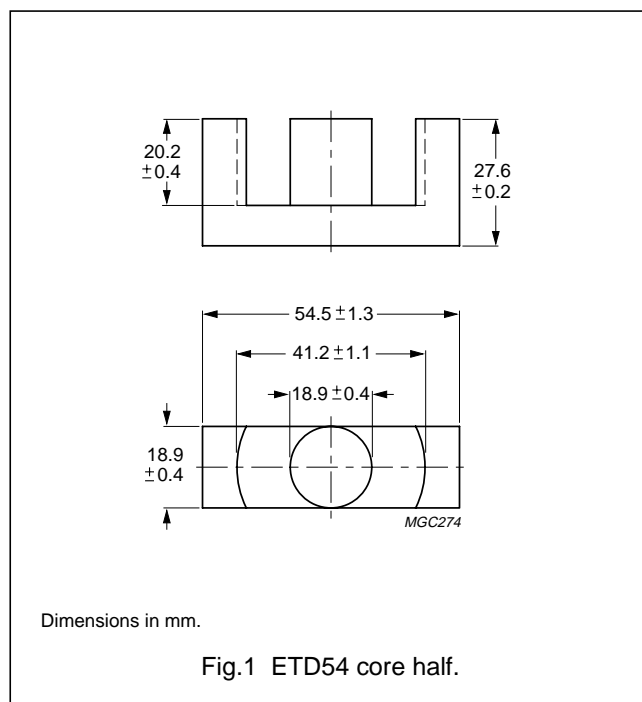
ETD cores and accessories

ETD54

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.454	mm ⁻¹
V_e	effective volume	35500	mm ³
l_e	effective length	127	mm
A_e	effective area	280	mm ²
A_{min}	minimum area	270	mm ²
m	mass of core half	≈90	g



Core halves

Clamping force 50 ± 20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C30 <small>des</small>	$4100 \pm 25\%$	≈1580	≈0	ETD54-3C30
3C85	$5000 \pm 25\%$	≈1950	≈0	ETD54-3C85
3C90 <small>des</small>	$5000 \pm 25\%$	≈1950	≈0	ETD54-3C90
3F3 <small>des</small>	$4600 \pm 25\%$	≈1800	≈0	ETD54-3F3

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; \dot{B} = 200 mT; T = 100 °C	f = 100 kHz; \dot{B} = 100 mT; T = 100 °C	f = 400 kHz; \dot{B} = 50 mT; T = 100 °C
3C30	≥360	≤4.0	≤4.8	–
3C85	≥320	≤5.0	≤6.2	–
3C90	≥330	≤4.0	≤4.8	–
3F3	≥320	–	≤4.5	≤8.5

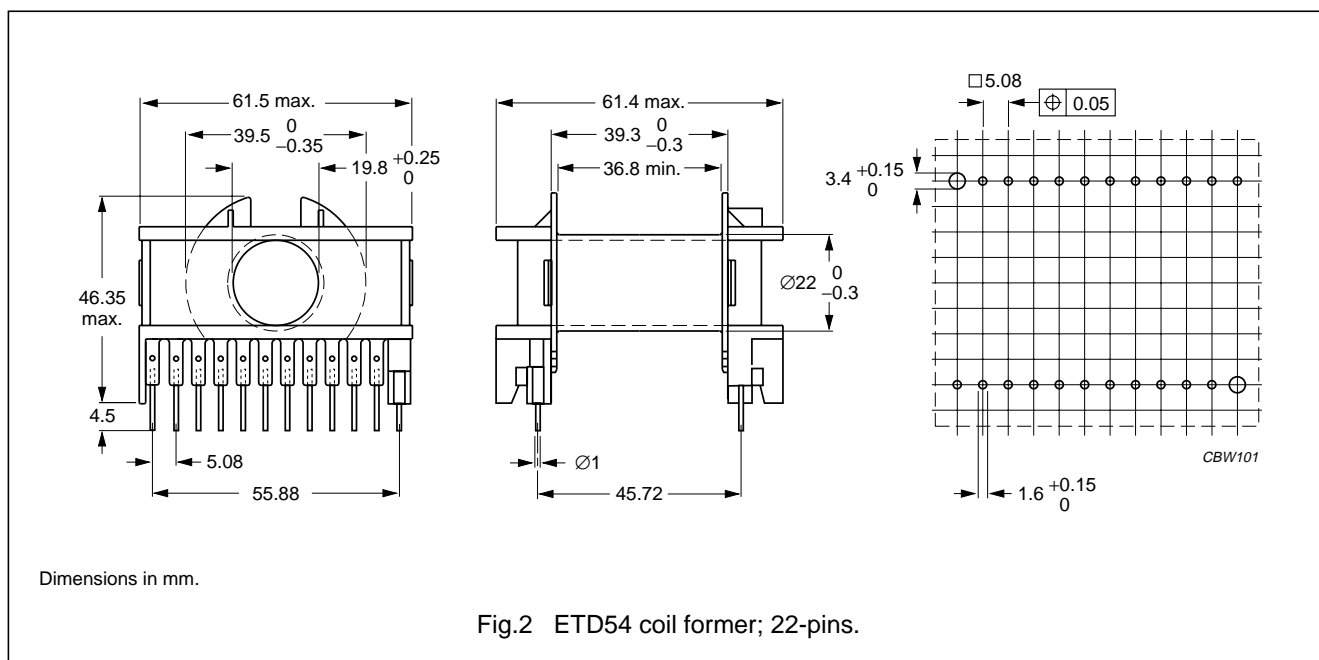
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COIL FORMERS

General data 22-pins ETD54 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 85" class F
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 22-pins ETD54 coil former

NUMBER OF SECTIONS	WINDING AREA (mm ²)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER
1	316	36.8	96	CPH-ETD54-1S-22P

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MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD54

