

Philips Components

Data sheet	
status	Product specification
date of issue	July 1990

# LTD133

## Liquid crystal display

T-41-38

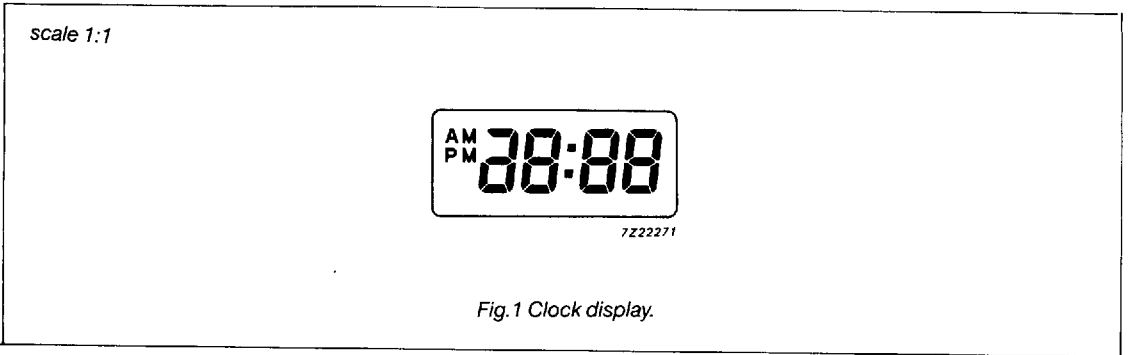
**DEVICE DESCRIPTION**

The LTD133 is a 3 1/2-digit 7 segment clock display with AM and PM functions. It is designed for use with the PCF1175 clock circuit.

**QUICK REFERENCE DATA**

Viewing area dimensions	32.5 x 14.1 mm
Overall glass dimensions	37.5 x 20.8 mm
Thickness	1.9 +/- 0.2 mm
Digit height	8.5 mm
Preferred viewing direction	12 o'clock
Driving method	MUX 1:2

**DISPLAY MODE**



**TYPE DEPENDENT CHARACTERISTICS (1)**

TYPE	ILLUMINATION MODE	CONNECTION METHOD	RELIABILITY GRADE	FAMILY CHARACTERISTICS (2)	OPERATING VOLTAGE (V)
LTD133F-21	transflective	for conductive rubber	extended	TF3	typ. 5

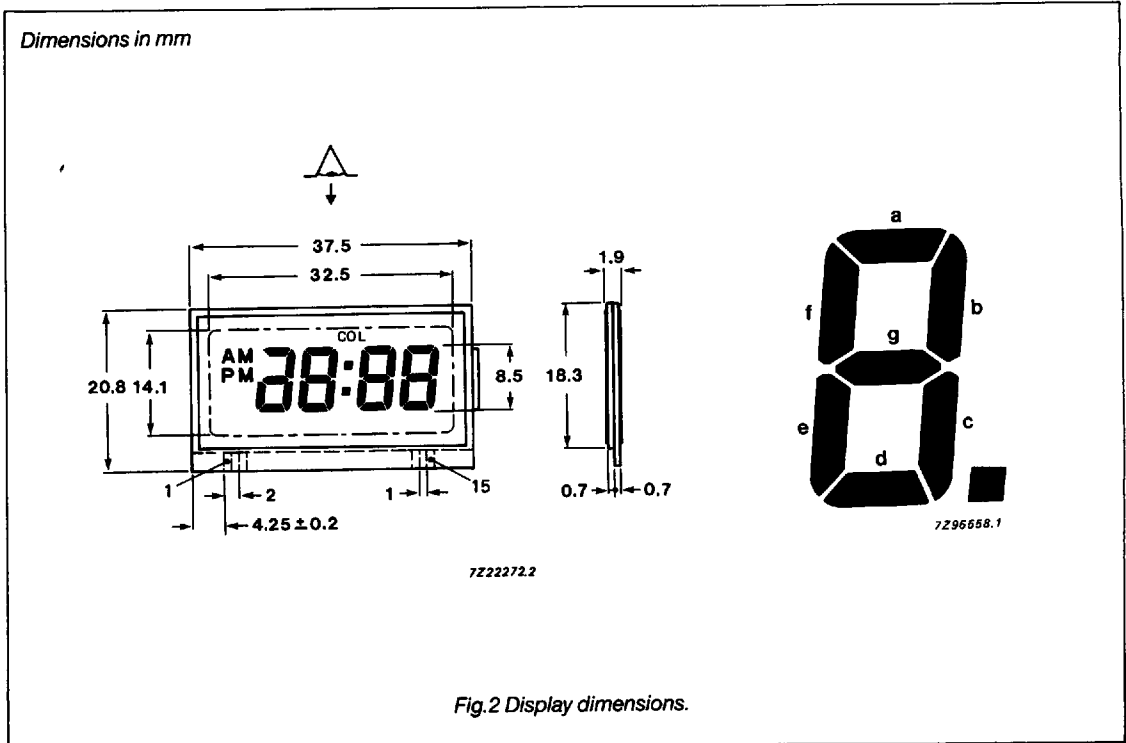
Note: (1) drive method = 1:2

(2) see chapter "Family Characteristics" for complete specification

Liquid crystal display

LTD133

MECHANICAL DATA



**Liquid crystal display****LTD133****PIN DESCRIPTION**

PIN NO.	SEGMENT ASSIGNED TO COMMON 1	SEGMENT ASSIGNED TO COMMON 2
1	comm 1	n.c.
2	n.c.	comm 2
3	AM	PM
4	a2	adeg1
5	b1	c1
6	f2	e2
7	g2	d2
8	b2	c2
9	a4	col
10	f3	e3
11	g3	ad3
12	b3	c3
13	f4	e4
14	g4	d4
15	b4	c4

**RATINGS**

Limiting values in accordance with Absolute Maximum System (IEC 134)

Maximum voltage between any two connections (see note)

 $V_{max}$ 

10 V RMS

Note: maximum DC component = 0.1 V

TYPE	RELIABILITY TESTS		
	Damp heat steady state $T_{amb}/R.H./21$ days	Low temperature storage $T_{amb}/duration$	High temperature storage $T_{amb}/duration$ (dry)
LTD133F-21	+80 °C/90%/21 days	40 °C/21 days	+85 °C/21 days