

Data sheet	
status	Product specification
date of issue	July 1990

LTD222

Liquid crystal display

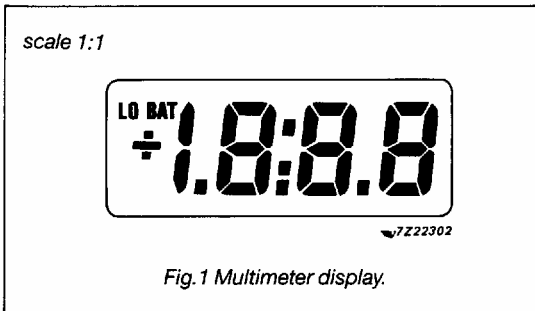
T-41-38

QUICK REFERENCE DATA

Viewing area dimensions	46.7 x 18.4 mm
Overall glass dimensions	50.7 x 30.4 mm
Thickness	2.7 +/- 0.4 mm
Digit height	12.7 mm
Preferred viewing direction	6 o'clock
Driving method	direct drive

DEVICE DESCRIPTION

The LTD222 is a 3 1/2-digit, 7-segment, multi-function LCD. Typical applications include multimeters and panelmeters.

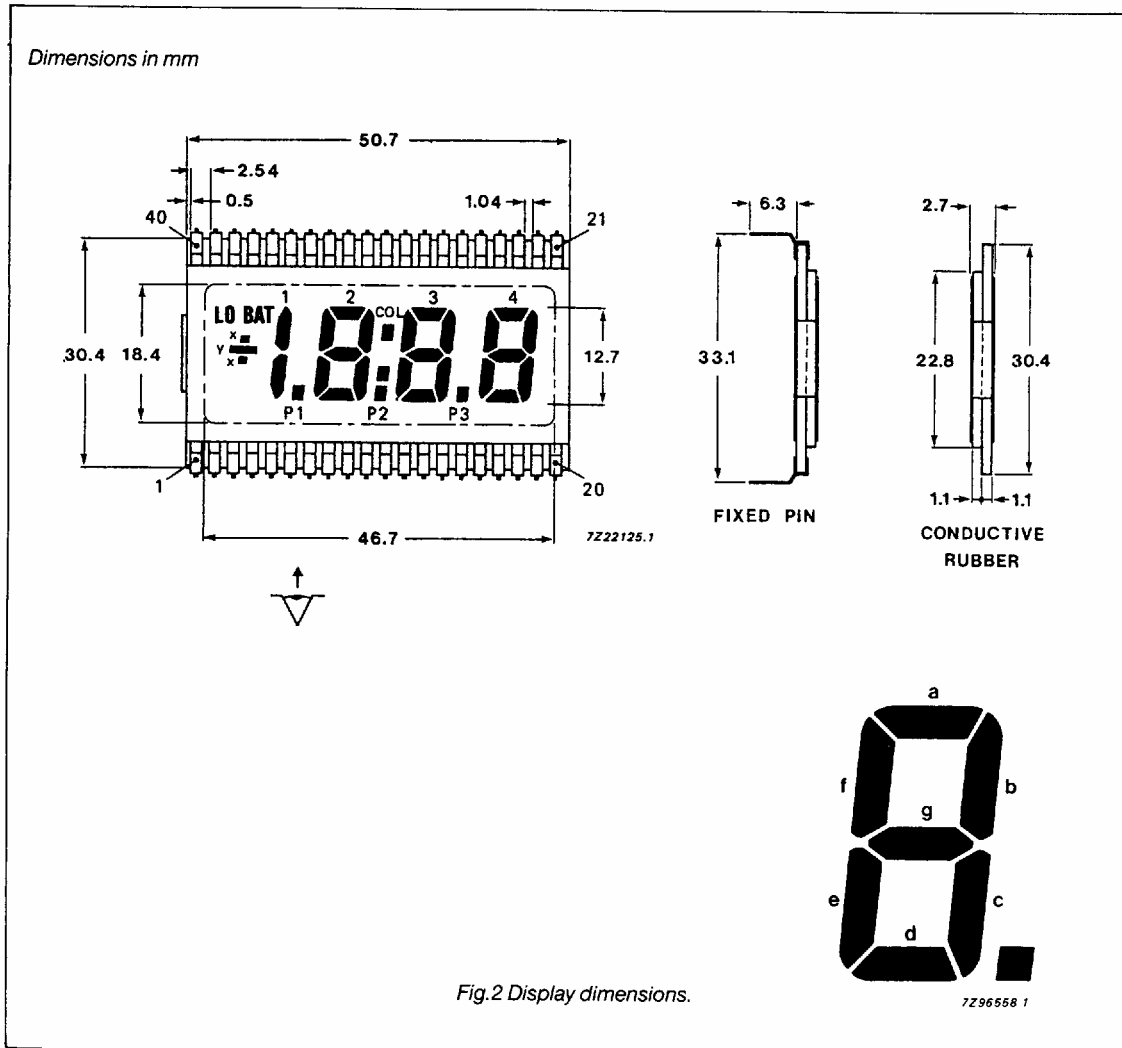
DISPLAY MODE**TYPE DEPENDENT CHARACTERISTICS (1)**

TYPE	ILLUMINATION MODE	CONNECTION METHOD	RELIABILITY GRADE	FAMILY (2) CHARACTERISTICS	OPERATING VOLTAGE (V)
LTD222R-11	reflective	for conductive rubber	commercial	TR0	3.5 - 6.5
LTD222R-12	reflective	with fixed pins	commercial	TR0	3.5 - 6.5
LTD222F-12	transflective	with fixed pins	commercial	TF0	3.5 - 6.5
LTD222R-21	reflective	for conductive rubber	extended	TR2	3.5 - 6.5
LTD222F-21	transflective	for conductive rubber	extended	TF2	3.5 - 6.5
LTD222R-22	reflective	with fixed pins	extended	TR2	3.5 - 6.5
LTD222F-22	transflective	with fixed pins	extended	TF2	3.5 - 6.5

Note: (1) drive method = direct drive for all types

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

MECHANICAL DATA



PIN DESCRIPTION

PIN NO.	SEGMENT	PIN NO.	SEGMENT
1	comm	21	a4
2	y	22	f4
3	1	23	g4
4	n.c.	24	b3
5	n.c.	25	a3
6	n.c.	26	f3
7	n.c.	27	g3
8	p1	28	col
9	e2	29	b2
10	d2	30	a2
11	c2	31	f2
12	p2	32	g2
13	e3	33	n.c.
14	d3	34	n.c.
15	c3	35	n.c.
16	p3	36	n.c.
17	e4	37	n.c.
18	d4	38	LOBAT
19	c4	39	x
20	b4	40	comm

RATINGS

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

Maximum voltage between any two contacts (see note)

 V_{max} 15 V RMS

Note: maximum DC component = 0.1 V

TYPE	RELIABILITY TESTS		
	Damp heat steady state T_{amb} /R.H./duration	Low temperature storage T_{amb} /duration	High temperature storage T_{amb} /duration
LTD222R-11	+40 °C/90%/21 days	-25 °C/21 days	+70 °C/21 days
LTD222R-12	+40 °C/90%/21 days	-25 °C/21 days	+70 °C/21 days
LTD222F-12	+40 °C/90%/21 days	-25 °C/21 days	+70 °C/21 days
LTD222R-21	+80 °C/90%/21 days	-40 °C/21 days	+85 °C/21 days
LTD222F-21	+80 °C/90%/21 days	-40 °C/21 days	+85 °C/21 days
LTD222R-22	+80 °C/90%/21 days	-40 °C/21 days	+85 °C/21 days
LTD222F-22	+80 °C/90%/21 days	-40 °C/21 days	+85 °C/21 days