

| Data sheet | |
|---------------|-----------------------|
| status | Product specification |
| date of issue | July 1990 |
| | |

LTD202

Liquid crystal display

DEVICE DESCRIPTION

The LTD202 is a 2-digit, 7-segment LCD. It is intended for use in small counter and indicator panel applications.

DISPLAY MODE

scale 1:1

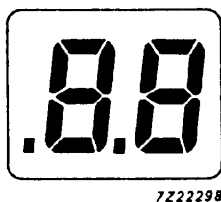


Fig.1 Universal display.

QUICK REFERENCE DATA

| | |
|-----------------------------|----------------|
| Viewing area dimensions | 23.5 x 18.4 mm |
| Overall glass dimensions | 27.9 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 |

TYPE DEPENDENT CHARACTERISTICS (1)

| TYPE | ILLUMINATION MODE | CONNECTION METHOD | RELIABILITY GRADE | FAMILY (2) CHARACTERISTICS | OPERATING VOLTAGE (V) |
|------------|-------------------|-------------------|-------------------|----------------------------|-----------------------|
| LTD202R-12 | reflective | with fixed pins | commercial | TR0 | 3.5 - 6.5 |
| LTD202R-22 | reflective | with fixed pins | extended | TR2 | 3.5 - 6.5 |
| LTD202F-22 | transflective | with fixed pins | extended | TF2 | 3.5 - 6.5 |

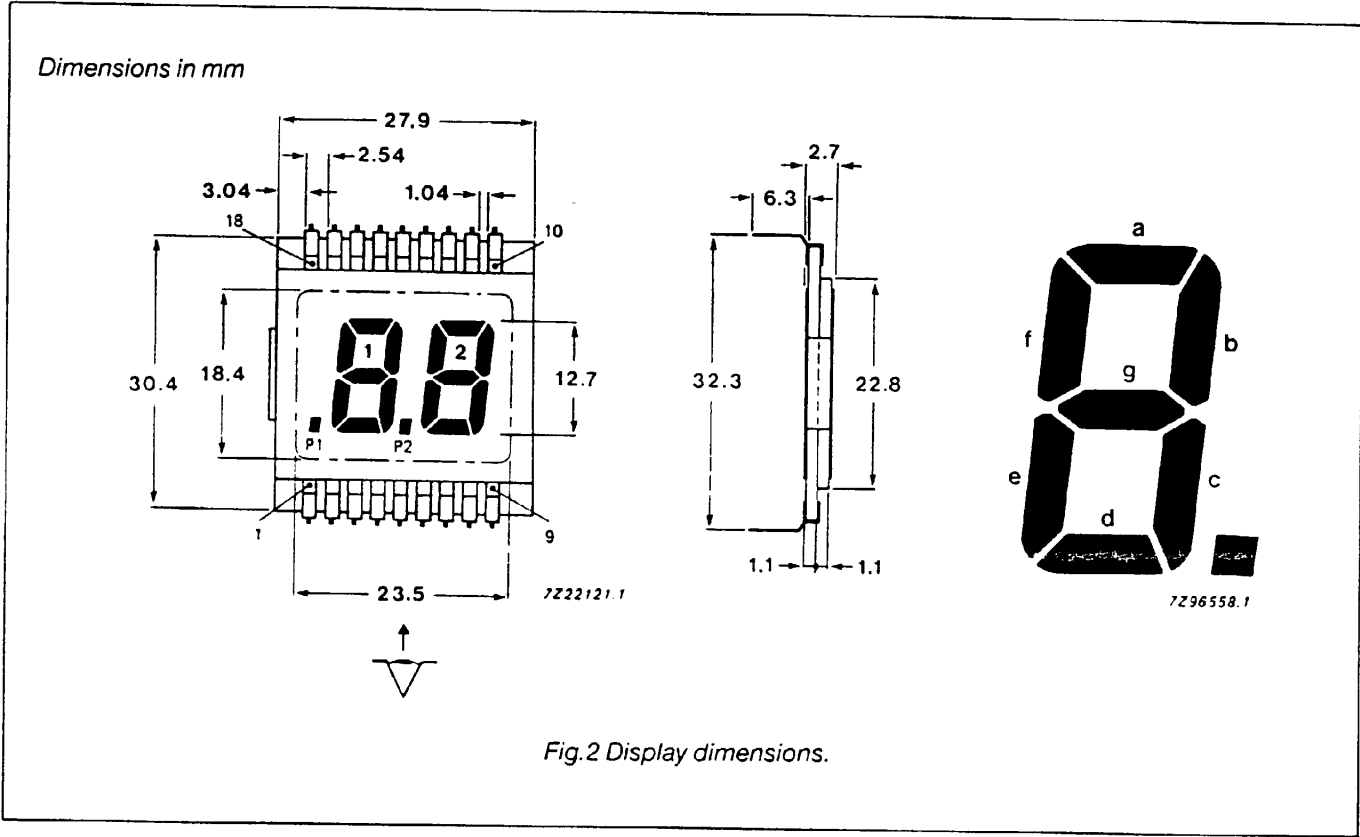
Note: (1) drive method = direct drive for all types

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

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MECHANICAL DATA



PIN DESCRIPTION

| PIN NO. | SEGMENT |
|---------|---------|
| 1 | comm |
| 2 | p1 |
| 3 | e1 |
| 4 | d1 |
| 5 | c1 |
| 6 | p2 |
| 7 | e2 |
| 8 | d2 |
| 9 | c2 |

| PIN NO. | SEGMENT |
|---------|---------|
| 10 | b2 |
| 11 | a2 |
| 12 | f2 |
| 13 | g2 |
| 14 | b1 |
| 15 | a1 |
| 16 | f1 |
| 17 | g1 |
| 18 | n.c. |

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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 |
| LTD202R-12 | +40 °C/90%/21 days | −25 °C/21 days | +70 °C/21 days |
| LTD202R-22 | +80 °C/90%/21 days | −40 °C/21 days | +85 °C/21 days |
| LTD202F-22 | +80 °C/90%/21 days | −40 °C/21 days | +85 °C/21 days |