16×32 matrix displays

LM-2512 Series

The LM-2512 series are a 16×32 matrix display which can be used in a wide variety of applications, including alphabet, numeric, symbol, and graphic displays. Dual-color red / green is available.

Applications

Light sources for displays

Features

1) 16×32 dot matrix

Circular emitters: 2.0mm diameter.

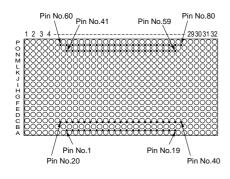
2) External dimensions: 39.9×79.9×6.2mm

3) Black package.

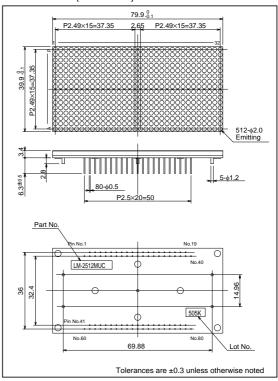
Selection guide

| Emitting color Common | Red / Green |
|-----------------------|-------------|
| Anode | _ |
| Cathode | LM-2512MUC |

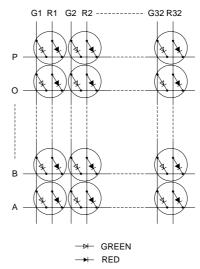
●Pin assignments (Top view)



●Dimensions (Unit : mm)



●Internal circuit schematic



●Pin assignment table

| Pin No. | Co | nnection | Pin No. | Coi | nnection | Pin No. | Cor | nnection | Pin No. | Cor | nection |
|---------|-----|----------|---------|-----|----------|---------|-----|----------|---------|-----|---------|
| 1 | Α | Cathode | 21 | Е | Cathode | 41 | - 1 | Cathode | 61 | М | Cathode |
| 2 | В | Cathode | 22 | F | Cathode | 42 | J | Cathode | 62 | N | Cathode |
| 3 | С | Cathode | 23 | G | Cathode | 43 | K | Cathode | 63 | 0 | Cathode |
| 4 | R1 | Anode | 24 | Н | Cathode | 44 | G1 | Anode | 64 | Р | Cathode |
| 5 | R3 | Anode | 25 | R2 | Anode | 45 | G3 | Anode | 65 | G2 | Anode |
| 6 | R5 | Anode | 26 | R4 | Anode | 46 | G5 | Anode | 66 | G4 | Anode |
| 7 | R7 | Anode | 27 | R6 | Anode | 47 | G7 | Anode | 67 | G6 | Anode |
| 8 | R9 | Anode | 28 | R8 | Anode | 48 | G9 | Anode | 68 | G8 | Anode |
| 9 | R11 | Anode | 29 | R10 | Anode | 49 | G11 | Anode | 69 | G10 | Anode |
| 10 | R13 | Anode | 30 | R12 | Anode | 50 | G13 | Anode | 70 | G12 | Anode |
| 11 | R15 | Anode | 31 | R14 | Anode | 51 | G15 | Anode | 71 | G14 | Anode |
| 12 | R17 | Anode | 32 | R16 | Anode | 52 | G17 | Anode | 72 | G16 | Anode |
| 13 | R19 | Anode | 33 | R18 | Anode | 53 | G19 | Anode | 73 | G18 | Anode |
| 14 | R21 | Anode | 34 | R20 | Anode | 54 | G21 | Anode | 74 | G20 | Anode |
| 15 | R23 | Anode | 35 | R22 | Anode | 55 | G23 | Anode | 75 | G22 | Anode |
| 16 | R25 | Anode | 36 | R24 | Anode | 56 | G25 | Anode | 76 | G24 | Anode |
| 17 | R27 | Anode | 37 | R26 | Anode | 57 | G27 | Anode | 77 | G26 | Anode |
| 18 | R29 | Anode | 38 | R28 | Anode | 58 | G29 | Anode | 78 | G28 | Anode |
| 19 | R31 | Anode | 39 | R30 | Anode | 59 | G31 | Anode | 79 | G30 | Anode |
| 20 | D | Cathode | 40 | R32 | Anode | 60 | L | Cathode | 80 | G32 | Anode |

● Absolute maximum ratings (Ta=25°C)

| Parameter | Cumahal | MU | Unit | |
|-----------------------|---------|--------|-------|-------|
| Farameter | Symbol | Red | Green | Offic |
| Power dissipation | P□ | 2.69 | 2.69 | W |
| Forward current | lF | 15 | 15 | mA |
| Peak forward current | IFP | 60* | 60* | mA |
| Reverse voltage | VR | 4 | 4 | V |
| Operating temperature | Topr | -20 to | °C | |
| Storage temperature | Tstg | −25 to | °C | |

^{*} Pulse width 1msec duty 1 / 16

●Electrical and optical characteristics (Ta=25°C)

| | | Conditions | MUC | | | | | | |
|--------------------------|--------|----------------------|------|------|------|-------|------|------|------|
| Parameter | Symbol | | Red | | | Green | | | Unit |
| | | | Min. | Тур. | Max. | Min. | Тур. | Max. | |
| Forward voltage | VF | I=10mA | - | 2.0 | 2.8 | _ | 2.1 | 2.8 | ٧ |
| Reverse current | lR | Vr=3V | - | - | 100 | - | _ | 100 | μΑ |
| Peak wavelength | λР | I _F =10mA | - | 635 | _ | _ | 563 | _ | nm |
| Spectral line half width | Δλ | I=10mA | - | 40 | - | - | 40 | - | nm |

Not designed for radiation resistance.

Luminous intensity

| Color | Туре | Min. | Тур. | Max. | Unit |
|-------|---------|------|------|------|------|
| Red | MUC 0.2 | | 0.63 | - | mcd |
| Green | WIOC | 0.56 | 1.6 | - | mcd |

Note: Measured at IF = 10mA



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