

# Ningbo Junsheng Electronics Co.,Ltd.

## 1.90" (4.80mm)8x8 single color dot matrix Display

### Features:

- \*Ultra segment intensity
- \*Wide viewing angle
- \*Range of colors
- \*Gray/Black face White segment
- \*RoHS compliant

### Available option:

- \*Alternative face and segment color
- \*Alternative font
- \*Cropped terminal pins
- \*Available emitting color
- \*Low current version

### Electro/Optical Characteristics If=20mA Ta=25°C

| Part Number<br>Common Cathode | Part Number<br>Common Anode | Emitting Color            | Peak<br>Wavelength | Forward Voltage Vf |      | Luminous Intensity Iv |        |
|-------------------------------|-----------------------------|---------------------------|--------------------|--------------------|------|-----------------------|--------|
|                               |                             |                           |                    | Typ.               | Max. | Min.                  | Typ.   |
| JSD-19881IUR                  | JSD-19881JUR                | AlGaInP/GaAs Ultra Red    | 635                | 2.00               | 2.50 | 20.00                 | 40.00  |
| JSD-19881IUE                  | JSD-19881JUE                | AlGaInP/GaAs Super Red    | 625                | 2.00               | 2.50 | 40.00                 | 80.00  |
| JSD-19881IUA                  | JSD-19881JUA                | AlGaInP/GaAs Ultra Amber  | 605                | 2.00               | 2.50 | 40.00                 | 60.00  |
| JSD-19881IUY                  | JSD-19881JUY                | AlGaInP/GaAs Ultra Yellow | 590                | 2.00               | 2.50 | 40.00                 | 60.00  |
| JSD-19881IUG                  | JSD-19881JUG                | AlGaInP/GaAs Yellow Green | 574                | 2.10               | 2.50 | 10.00                 | 20.00  |
| JSD-19881IPG                  | JSD-19881JPG                | InGaN/SiC Pure Green      | 525                | 3.30               | 3.80 | 150.00                | 200.00 |
| JSD-19881IUB                  | JSD-19881JUB                | InGaN/SiC Ultra Blue      | 470                | 3.30               | 3.80 | 40.00                 | 80.00  |
| JSD-19881IUW                  | JSD-19881JUW                | InGaN/SiC Ultra White     | X-0.31/Y-0.31      | 3.30               | 3.80 | 200.00                | 400.00 |
| Units                         |                             |                           | nm                 | V                  |      | mcd                   |        |

### Maximum Ratings Ta=25°C (Derate above 25°C)

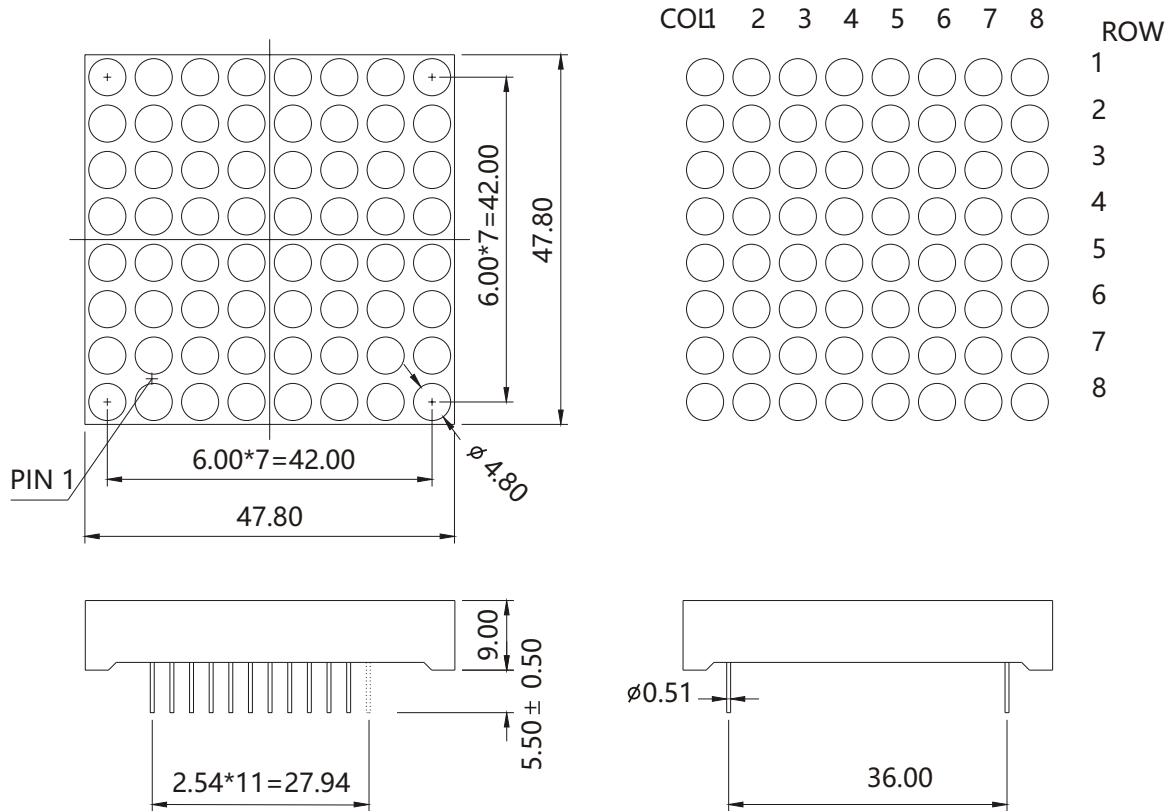
| Characteristic                 | Test Condition                     | Symbol           | UR         | UE  | UA  | UY  | UG  | PG  | UB  | UW  | Units |
|--------------------------------|------------------------------------|------------------|------------|-----|-----|-----|-----|-----|-----|-----|-------|
| Pulse Forward Current Per Seg. | 1/10 duty cycle 0.1ms Pulse width  | I <sub>FP</sub>  | 100        | 100 | 100 | 100 | 100 | 100 | 100 | 100 | mA    |
| DC Forward Current Per Seg.    |                                    | I <sub>F</sub>   | 30         | 30  | 30  | 30  | 30  | 30  | 30  | 30  | mA    |
| Reverse Current Per Seg.       | V <sub>R</sub> =5V                 | I <sub>R</sub>   | 10         | 10  | 10  | 10  | 10  | 10  | 10  | 10  | μA    |
| Power Dissipation              |                                    | P <sub>D</sub>   | 36         | 40  | 42  | 42  | 44  | 66  | 66  | 66  | mW    |
| Operating Temperature          |                                    | T <sub>OPR</sub> | -40 to +80 |     |     |     |     |     |     |     | °C    |
| Storage Temperature            |                                    | T <sub>TSG</sub> | -40 to +85 |     |     |     |     |     |     |     | °C    |
| Lead soldering temperature     | 1.60mm from body maximum 3 seconds |                  | 260        |     |     |     |     |     |     |     | °C    |

|         |           |          |           |      |             |           |
|---------|-----------|----------|-----------|------|-------------|-----------|
| Checked | Becky Sun | Approved | Jason Lou | Date | Aug/14/2013 | PAGE 1 /2 |
|---------|-----------|----------|-----------|------|-------------|-----------|

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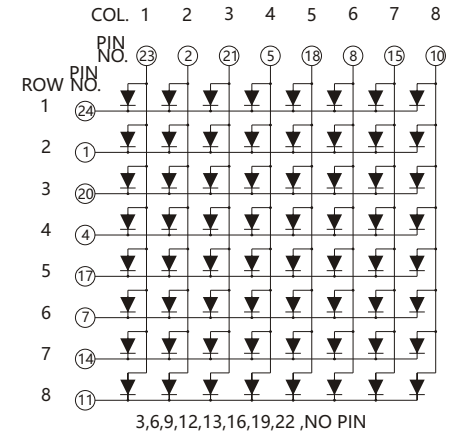
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### PACKAGE DIMENSION

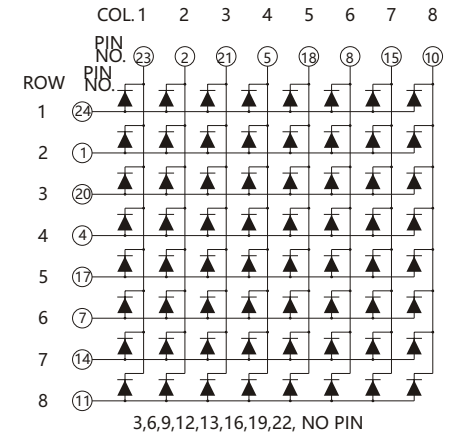


### INTERNAL CIRCUIT DIAGRAM

Row Cathode  
Column Anode  
JSD-19881Ix



Row Anode  
Column Cathode  
JSD-19881Jx



Tolerance  $\pm 0.25\text{mm}$  unless stated

Checked

Becky Sun

Approved

Jason Lou

Date

Aug/24/2013

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