

DOT MATRIX FULLCOLOR DISPLAY

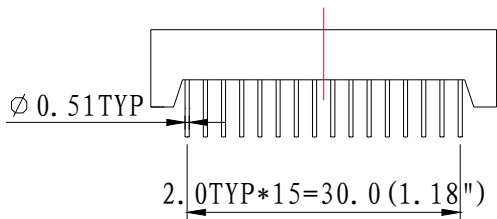
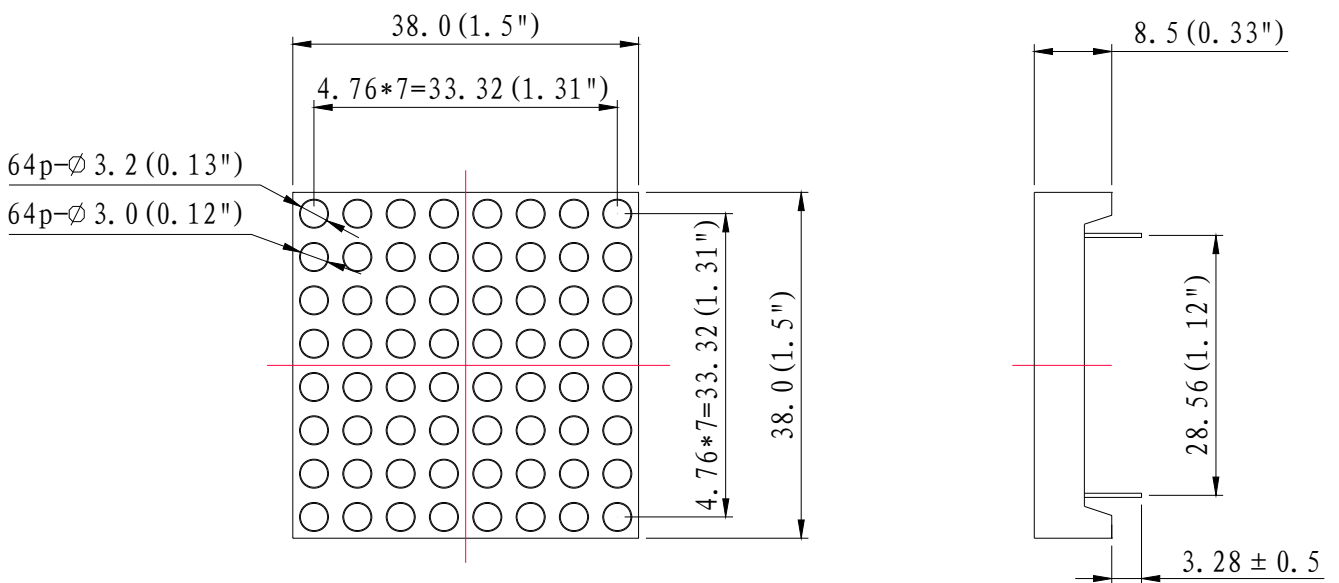
JZM15880ARGB-BW

DATA SHEET

DOCUMENT NO.: WI-RD-LDS-15880ARGB-BW**RELEASE DATE: 2007-5-20****VERSION: A/0****RD No.: JZD20070520001**

PART NO.: JZM15880ARGB-BW

Package Dimensions



PIN 1 →

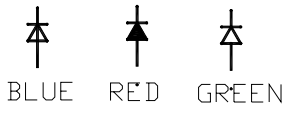
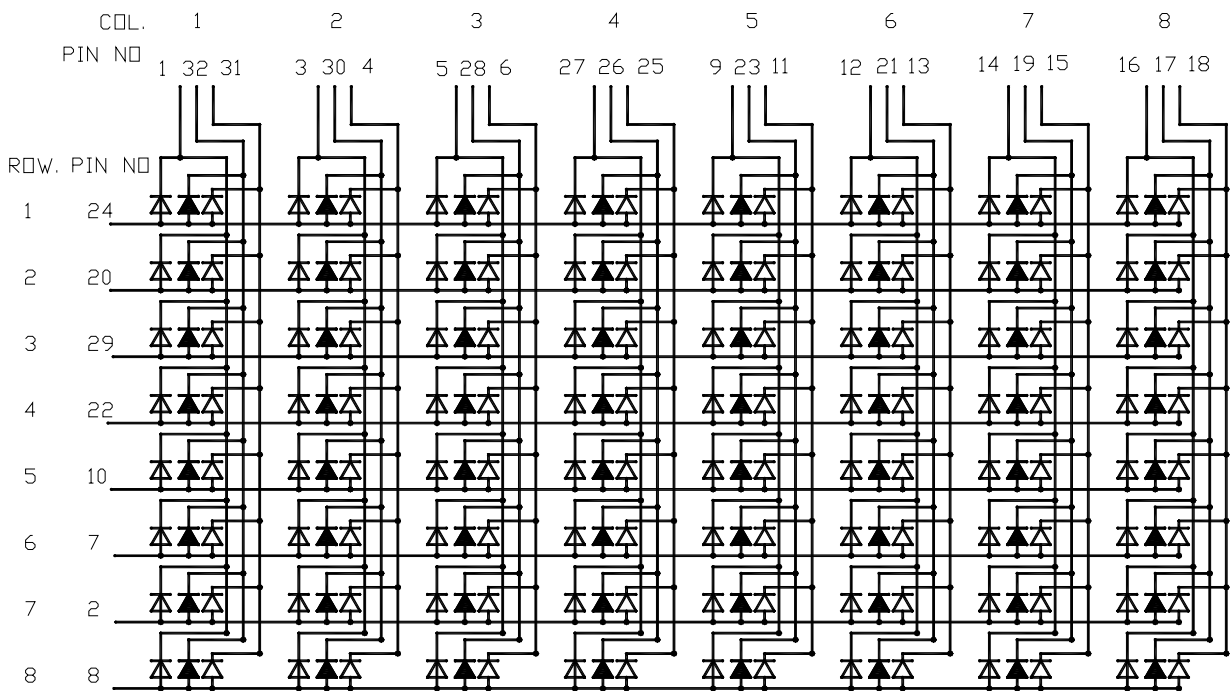
Notes:

1. All dimension are in millimeters and(Inch)tolerance is ± 0.25 mm unless otherwise noted.
2. Specifications are subject to change without notice.

PART NO.: JZM15880ARGB-BW

Internal Circuit Diagram

JZM15880ARGB-BW



PART NO.: JZM15880ARGB-BW

Part selection And Application Information(Ratings at 25°C)

| PART NO. | COLOR (EPOX Y/SURF ACE) | CHIP | | Common cathode or anode | WD (nm) | Electrical | | | | IV- M |
|----------------|------------------------------------|---------------|---------|-------------------------------|----------------|------------|------|---------|------|-----------|
| | | Material | Emitted | | | Vf(v) | | Iv(mcd) | | |
| | | | | | | Typ. | Max. | Min. | Typ. | |
| JZM1588ARGB-BW | WHITE DIFFUS -E | AlGaInP | RED | Common anode | 624 | 1.7 | 2.6 | 90 | 120 | 1: 1.1 |
| | | InGaN/ GaN | GREEN | | 525 | 2.6 | 3.5 | 200 | 220 | 1: 1.1 |
| | | InGaN/ SiC | BLUE | | 470 | 2.6 | 3.5 | 80 | 90 | 1: 1.1 |

Note:1.The forward voltage data did not including $\pm 0.01V$ testing tolerance.

2.The luminous intensity data did not including $\pm 15\%$ testing tolerance.

Test Condition For Each Parameter

| Parameter | Symbol | Unit | Test Condition |
|-----------------------------------|------------|---------|----------------|
| Forward Voltage Per Chip | Vf | volt | If=20mA |
| Luminous Intensity Per Chip | Iv | mcd | If=20mA |
| Peak Wavelength | WP | nm | If=20mA |
| Dominant Wavelength | WD | nm | If=20mA |
| Spectral Line Half-Width | ΔW | nm | If=20mA |
| Reverse Current Any Chip | Ir | μA | If=20mA |
| Luminous Intensity Matching Ratio | IV-M | | |

Typical Optical-Electronic Characteristic Curves

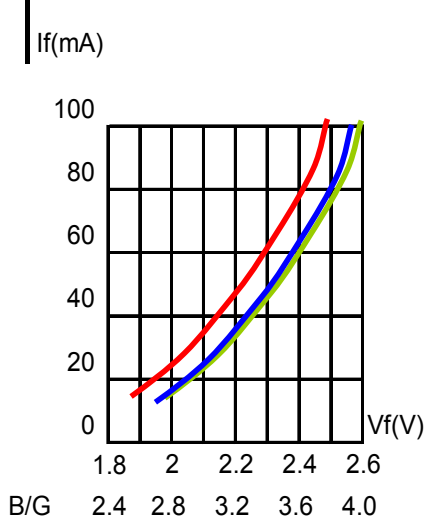
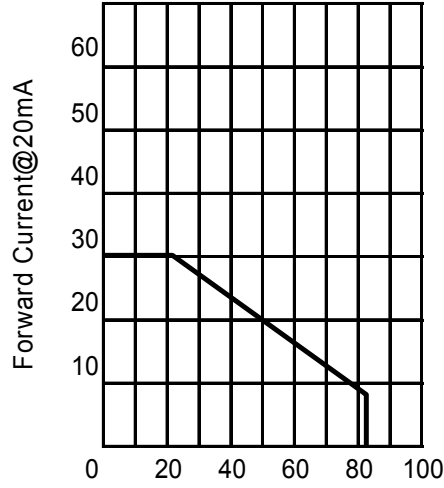


Fig.1 FORWARD CURRENT VS. FORWARD



AMBIENT TEMPERATURE($^{\circ}C$)

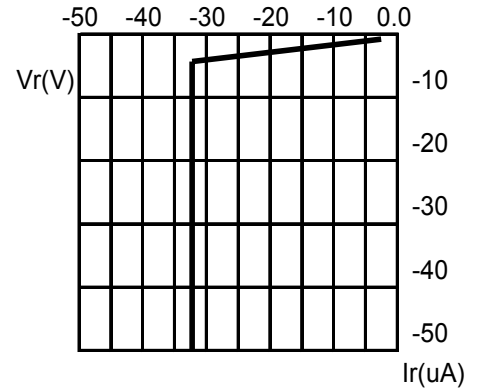
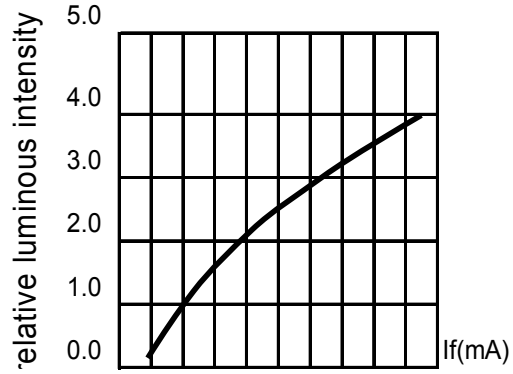
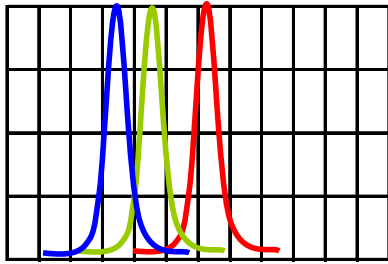


Fig.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

Blue WD=470nm
Green WD=525nm Red WD=620nm



Soldering Condition (Pb-Free)

1. Iron:

Soldering Iron: 30W Max

Temperature 350°C Max

Soldering Time: 3 Seconds Max (One time only)

Distance: Solder Temperature 1/16Inch Below Seating Plane
For 3 Seconds At 260°C

2. Wave Soldering Profile

Dip Soldering

Preheat: 120°C Max

Preheat time: 60 seconds Max

Ramp-up

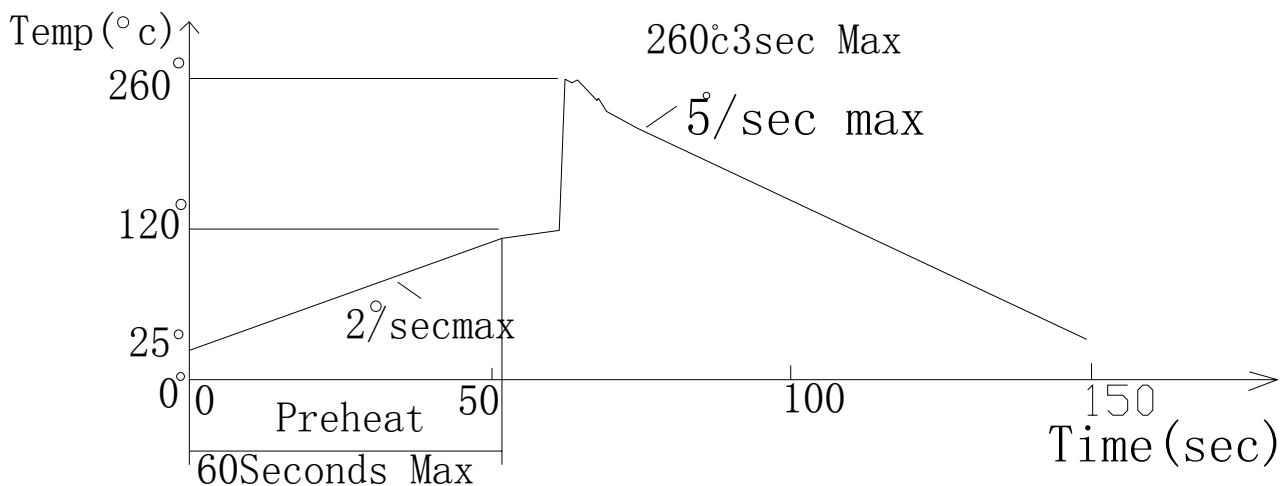
2°C/sec(max)

Ramp-Down: -5°C/sec(max)

Solder Bath: 260°C Max

Dipping Time: 3 seconds Max

Distance: Solder Temperature 1/16Inch Below Seating Plane for 3 Seconds At 260°C



Note: 1. Wave solder should not be made more than one time.

2. You can just only select one of the soldering conditions as above.

Reliability Test:

| Test Item | Standard Test Method | Test Condition | Description |
|-------------------------------------|--|---|--|
| Operating Life Test | JIS C7021:B-1 MIL-STD-750:1026 MIL-STD-883:1005 | 1. Under Room Temperature 2. If=10 mA 3. t=1000hrs(-24hrs,+72hrs) | This test is conducted for the purpose of deteming the resistance of a part in electrical and themal stressed. |
| High Temperature Storage Test | JIS C 7021:B-10 MIL-STD-883:1008 | 1. Ta=105°C±5°C 2. t=1000hrs(-24hrs,+72hrs) | The purpose of this is the resistance of the device which is laid under condition of high temperature for hours. |
| Low Temperature Storage Test | JIS C 7021:B-12 | 1. Ta=-40°C±5°C 2. t=1000hrs(-24hrs,+72hrs) | The purpose of this is the resistance of the device which is laid under condition of low temperature for hours. |
| High Temperature High Humidity Test | JIS C 7021:B-11 MIL-STD-202:103B | 1. Ta=65°C±5°C 2. RH=90%~95% 3. Tt=240hrs±2hrs | The purpose of this id the resistance of the device which is laid under condition of low temperature for hours. |
| Thermal Shock Test | MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011 | 1. Ta=105 °C ±5 °C & -40 °C ±5 °C (10min)(10min) | The purpose of this is the resistance of the device to sudden extreme changes in high and low temperature. |
| Solder Resistance Test | JIS C 7021:A-1 MIL-STD-202:210A MIL-STD-750:2031 | 1.T.Sol=260°C±5°C 2.Dwell time=10±1sec. | This test intended to determine the thermal characteristic resistance of the device to sudden exposures at ex treme changes in temperature when soldering the lead wire. |
| Solderability Test | JIS C 7021:A-2 MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003 | 1.T.Sol=230°C±5°C 2.Dwell time=5±1sec. | This test intended to see soldering well performed or not. |

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