

3MM ROUND LED LAMP [3MM □□□□□]

JZL-G304D-F0

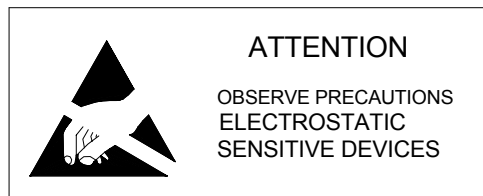
DATA SHEET



DOCUMENT NO.: WI-RD-LDS-YG304D-F0
□ □ □ □

RELEASE DATE: 2007- 12-6
□□□□

VERSION: A/0
□□



PART NO[□□□□].: JZL-G304D-F0**Absolute Maximum Rating at Ta=25□**

[□ 25□□□□□□□□□□]

| | | | |
|--|----------|--------------------|----|
| Power Dissipation | [□□□□] | 70 | mW |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | [□□□□□□] | 120 | mA |
| Forward Current | [□□□□] | 25 | mA |
| Operating Temperature Range | [□□□□] | -30□ to +85□ | |
| Storage Temperature Range | [□□□□] | -40□ to +100□ | |
| Lead Soldering Temperature [3mm From Body] | [□□□□] | 260□ for 3 Seconds | |

Electrical /Optical Characteristics at Ta=25□

[□ 25□□□□□□□/□□□□]

| Description | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|---------------------|----------------------|----------------------|------|------|------|------|
| Forward Voltage | V _F | I _F =20mA | 1.8 | 2.0 | 2.4 | V |
| Reverse Current | I _R | V _R =5V | / | / | 10 | μA |
| Dominant Wavelength | λ _D | I _F =20mA | / | 572 | / | nm |
| Luminous Intensity | I _v | I _F =20mA | / | 30 | / | mcd |
| Half V-angle | 2θ _{1/2H-H} | I _F =20mA | / | 60 | / | deg |
| | 2θ _{1/2V-V} | I _F =20mA | / | / | / | deg |

1. V_f maximum tolerance for each bin include is ±0.1V.

(BIN ±0.1V)

2. I_v maximum tolerance for each bin Include is ±15%.

(BIN ±15%)

3. λ_D maximum tolerance for each bin Include is ±1nm.

(BIN ±1nm)

PART NO[□□□□].: JZL-G304D-F0

Typical Optical-Electronic Characteristic Curves

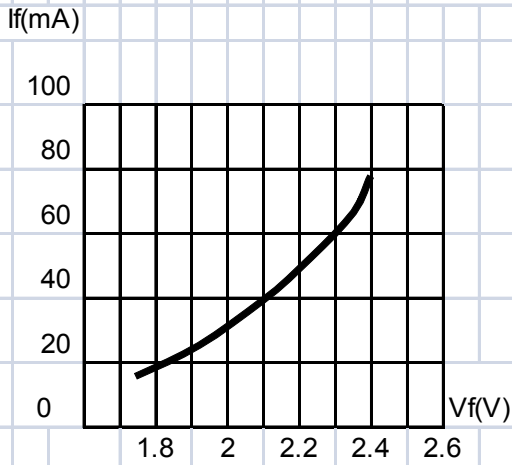


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

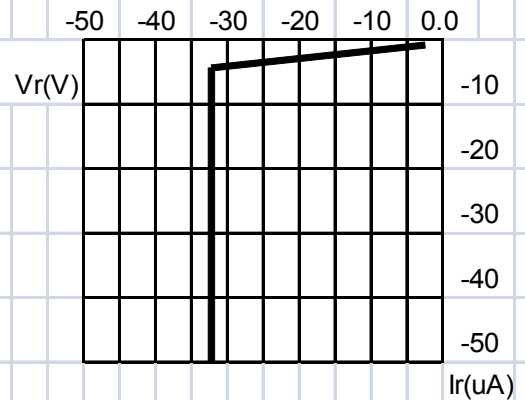


Fig.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

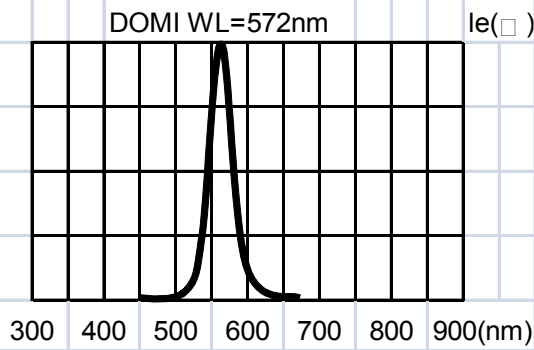


Fig.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.



Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD

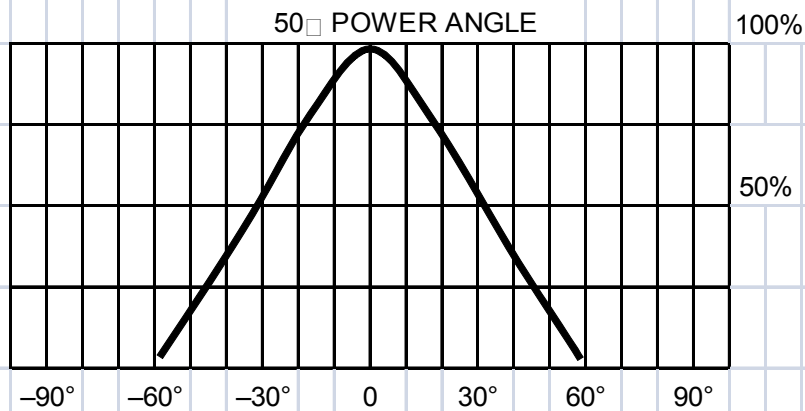


Fig.5 FAR FIELD PATTERN

CAUTIONS:

Storage time

1. The operation of Temperatures and RH are: 5°C~35°C, RH60%.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp proof box with desiccating agent. Considering the tape life, we suggest our customers to use our products within a year(from production date).
3. If opened more than one week in an atmosphere 5°C~ 35°C, RH60%, they should be treated at 60°C±5 °C for 15hours.

Cleaning

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED.

ESD(Electrostatic Discharge)

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrostatic glove is recommended when handling these LED. All devices, equipment and machinery must be properly grounded

□□ :

1. : 5 -35 ,60%RH.
2. , ;
3. 5 -35 60% RH , 60 ±5 15 .

ESD()

Reliability Test:

(1) Test Items And Results

| Test Item | Standard Test Method | Test Conditions | Note | Number of Damaged |
|---|--------------------------|--|----------------------|-------------------|
| Resistance to Soldering Heat | JEITA ED-4701 300 302 | Tsld=260± 5□,10sec. 3mm from the base of the epoxy bulb | 1time | 0/100 |
| Solderability | JEITA ED-4701 300 303 | Tsld=235± 5□,5sec. (using flux) | 1time over 95% | 0/100 |
| Thermal Shock | JEITA ED-4701 300 307 | -40□/15min.~100□/15min. | 100cycles | 0/100 |
| Temperature Cycle | JEITA ED-4701 100 105 | -40□/30min.~25□/5min. ~100□/30min.~25□/5min. | 100cycles | 0/100 |
| Moisture Resistance Cyclic | JEITA ED-4701 200 203 | 25□~65□~-10□ 90%RH 24hrs./1cycle | 10cycles | 0/100 |
| Terminal Strength(bending test) | JEITA ED-4701 400 401 | Load 5N(0.5kgf) 0°~90°~0°bend 2 times | No noticeable damage | 0/100 |
| Terminal Strength(pull test) | JEITA ED-4701 400 401 | Load 10N(1kgf)10±1sec. | No noticeable damage | 0/100 |
| High temperature Storage | JEITA ED-4701 200 201 | Ta=100□ | 1000hrs. | 0/100 |
| Temperature Humidity Storage | JEITA ED-4701 100 103 | Ta=60□,RH=90% | 1000hrs. | 0/100 |
| Low Temperature Storage | JEITA ED-4701 200 202 | Ta=-40□ | 1000hrs. | 0/100 |
| Steady state Operating Life | | Ta=25□,IF=20mA | 1000hrs. | 0/100 |
| Steady State Operating Life of High Humidity Heat | | 60□,RH=90%,IF=20mA | 500hrs. | 0/100 |
| Steady State Operating Life of Low Temperature | | Ta=-30□,IF=20mA | 1000hrs. | 0/100 |
| Resistance to UV Beam | | 365nm/75W/mm | 192hrs. | 0/100 |

(2) Criteria For Judging The Damage

| Item | Symbol | Test Conditions | Criteria for Judgement | |
|--------------------|--------|-----------------|------------------------|----------------|
| | | | Min. | Max. |
| Forward Voltage | Vf | IF=20mA | - | U.S.L.*) x 1.1 |
| Reverse Current | Ir | VR=5V | - | U.S.L.*) x 2.0 |
| Luminous Intensity | Iv | IF=20mA | L.S.L.**) x 0.7 | - |

*)U.S.L.:Upper Standard Level

**)L.S.L.:Lower Standard Level

□□□□□:

(1) □□□□□□□

| □□□□ | □□□□ | □□□□ | □□ | □□□/□□□ |
|----------------|--------------------------|---|-------------------------|---------|
| □□□ | JEITA ED-4701 300 302 | Tsld=260± 5□,10sec. 3mm from the base of the epoxy bulb | 1time | 0/100 |
| □□□□ (□□□) | JEITA ED-4701 300 303 | Tsld=235+ 5□,5sec. (using flux) | 1time over 95% | 0/100 |
| □□□□ | JEITA ED-4701 300 307 | -40□/15min.~100□/15min. | 100cycles | 0/100 |
| □□□□ | JEITA ED-4701 100 105 | -40□/30min.~25□/5min. ~100□/30min.~25□/5min. | 100cycles | 0/100 |
| □□□□ | JEITA ED-4701 200 203 | 25□~65□~-10□ 90%RH 24hrs./1cycle | 10cycles | 0/100 |
| □□□□ (□□□□) | JEITA ED-4701 400 401 | Load 5N(0.5kgf) 0°~90°~0°bend 2 times | No noticeable damage | 0/100 |
| □□□□ (□□□□) | JEITA ED-4701 400 401 | Load 10N(1kgf)10±1sec. | No noticeable damage | 0/100 |
| □□□□ | JEITA ED-4701 200 201 | Ta=100□ | 1000hrs. | 0/100 |
| □□□□ | JEITA ED-4701 100 103 | Ta=60□,RH=90% | 1000hrs. | 0/100 |
| □□□□ | JEITA ED-4701 200 202 | Ta=-40□ | 1000hrs. | 0/100 |
| □□□□□□ | | Ta=25□,IF=20mA | 1000hrs. | 0/100 |
| □□□□□□□□ | | 60□,RH=90%,IF=20mA | 500hrs. | 0/100 |
| □□□□□□□□ | | Ta=-30□,IF=20mA | 1000hrs. | 0/100 |
| □□□□□□ | | 365nm/75W/mm | 192hrs. | 0/100 |

(2) □□□□□□□□

| □□ | □□ | □□□□ | □□□□ | |
|------|----|---------|-----------|----------------|
| | | | □□ | □□ |
| □□□□ | Vf | IF=20mA | - | U.S.L.*) x 1.1 |
| □□□ | Ir | VR=5V | - | U.S.L.*) x 2.0 |
| □□□□ | Iv | IF=20mA | L.S.L.**) | x 0.7 |

*)U.S.L.:Upper Standard Level

**)L.S.L.:Lower Standard Level

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