

BRIGHT LED ELECTRONICS CORP.

LED LAMPS SPECIFICATION

● COMMODITY : T-1 Standard 1.0"Lead, 5 ϕ

● DEVICE NUMBER : BL-BJ73V4V

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● ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25°C)

VERSION : 1.1

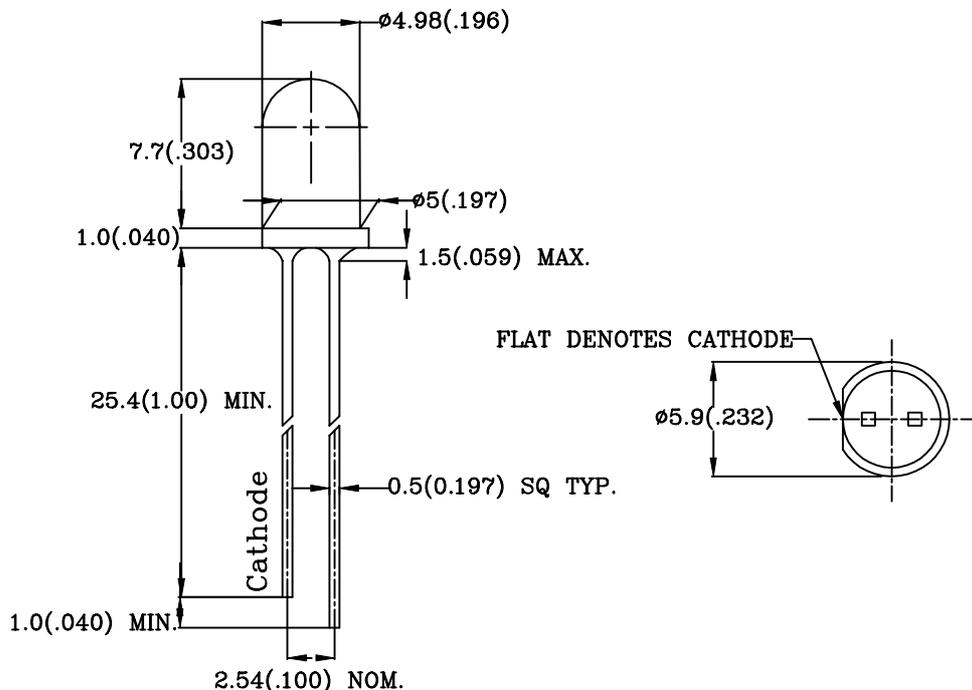
| Chip | | Lens Appearance | Absolute Maximum Rating | | | | Electro-optical Data (At 20mA) | | | | Viewing Angle 2 θ 1/2 (deg) |
|---------------|-------------------------------------|--------------------|--------------------------|------------|------------|-------------|--------------------------------|------|----------|------|--|
| Emitted Color | Peak Wave Length λ P(nm) | | $\Delta \lambda$ (nm) | Pd (mW) | If (mA) | Peak If(mA) | Vf(V) | | Iv (mcd) | | |
| | | | | | | | Typ. | Max. | Min. | Typ. | |
| Super Orange | 630 | Water Clear | 17 | 100 | 30 | 150 | 2.2 | 2.6 | 1600 | 3200 | 15 \pm 3 |

Remark : Viewing angle is the Off-axis angle at which the luminous intensity is half the axial luminous intensity.

● ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

| | |
|-----------------------------------|---------------------|
| Reverse Voltage | 5V |
| Reverse Current (-Vr=5V) | 100 μ A |
| Operating Temperature Range | -40°C ~ 80°C |
| Storage Temperature Range | -40°C ~ 85°C |
| Lead Soldering Temperature | 260°C For 5 Seconds |

● PACKAGE DIMENSIONS



NOTES: 1. All dimensions are in millimeters (inches).

2. Tolerance is ± 0.25 mm (0.01") unless otherwise specified.

3. Lead spacing is measured where the leads emerge from the package.

4. Specifications are subject to change without notice.

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SPECTRAL DISTRIBUTION

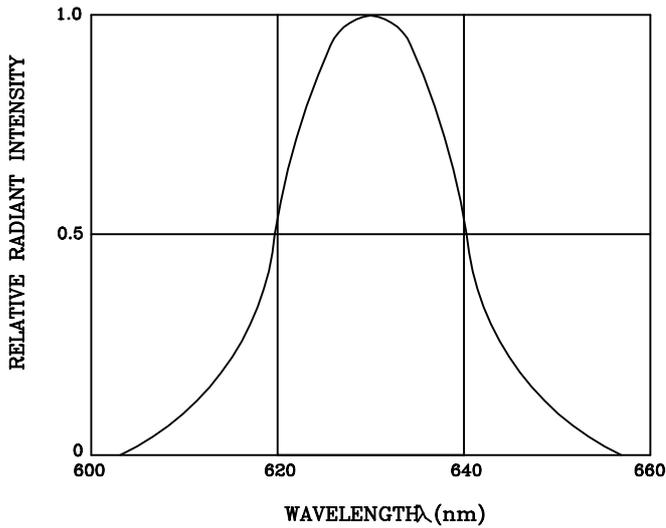
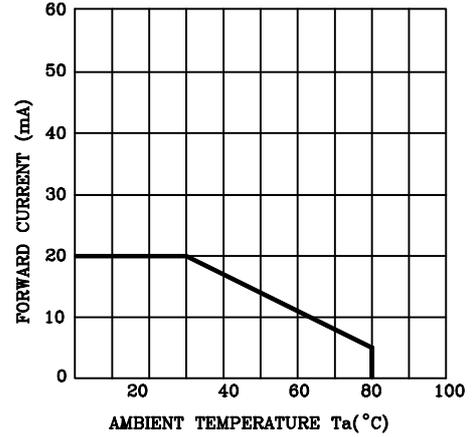
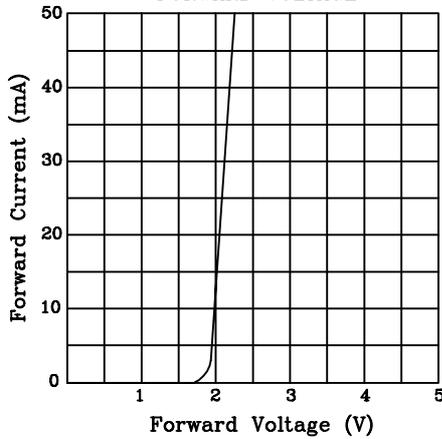


Fig. 2 FORWARD CURRENT DERATING CURVE

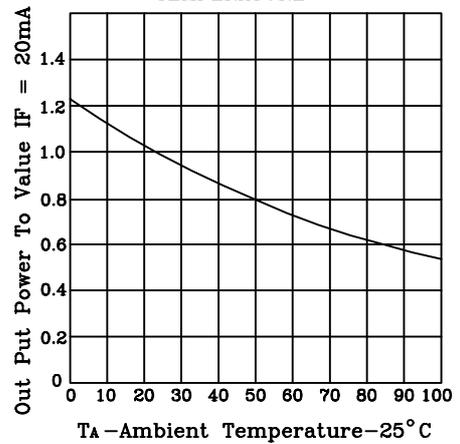


WAVELENGTH λ (nm)

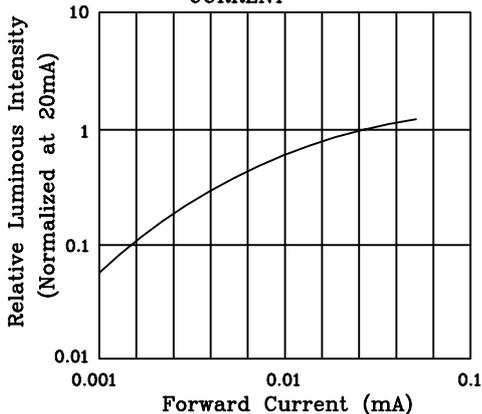
FORWARD CURRENT VS. FORWARD VOLTAGE



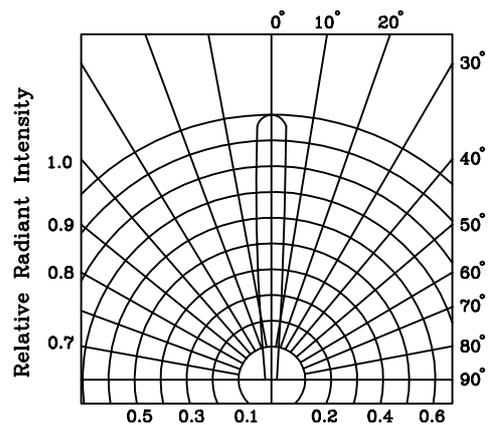
RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT



RADIATION DIAGRAM



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LED LAMP SPECIFICATION

RELIABILITY TEST

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| Classification | Test Item | Reference Standard | Test Conditions | Result |
|--------------------|--|---|--|--------|
| Endurance Test | Operation Life | MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021 :B-1 | Connect with a power If=30mA Ta=Under room temperature Test time=1,000hrs | 0/100 |
| | High Temperature High Humidity Storage | MIL-STD-202:103B JIS C 7021 :B-11 | Ta=85°C±5°C RH=90%-95% Test time=1,000hrs | 0/100 |
| | High Temperature Storage | MIL-STD-883:1008 JIS C 7021 :B-10 | High Ta=85°C±5°C Test time=1,000hrs | 0/100 |
| | Low Temperature Storage | JIS-C-7021 :B-12 | Low Ta=-35°C±5°C Test time=1,000hrs | 0/100 |
| Environmental Test | Temperature Cycling | MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021 :A-4 | -35°C ~ 25°C ~ 85°C ~ 25°C 30min 5min 30min 5min Test Time=10cycle | 0/100 |
| | Thermal Shock | MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011 | 85°C±5°C ~ -35°C±5°C 10min 10min Test Time=10cycle | 0/100 |
| | Solder Resistance | MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1 | T.sol=260±5°C Dwell Time=10±1sec. | 0/50 |
| | Solderability | MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003 JIS C 7021 :A-2 | T.sol=230±5°C Dwell Time=5±1sec. | 0/50 |
| | Lead Bending Stress | MIL-STD-750:2036 JIS C 7021 :A-11 | 0°~90°~0°bend , 3 cycles Weight 250g | 0/50 |

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

| Measuring items | Symbol | Measuring conditions | Judgement criteria for failure |
|--------------------|--------|----------------------|--------------------------------|
| Forward voltage | VF | IF=20mA | Over Ux1.2 |
| Reverse current | IR | VR=5V | Over Ux2 |
| Luminous intensity | IV | IF=20mA | Below Sx0.5 |

Note: 1.U means the upper limit of specified characteristics. S means initial value.

2.Measurment shall be taken between 2 hours and after the test pieces have been returned to normal ambient conditions after completion of each test.

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LED LAMPS SPECIFICATION Intensity And Color Bin Limits

● COMMODITY : T-1 3/4 Standard 1.0"Lead, 5 ϕ

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● DEVICE NUMBER : BL-BJ73V4V

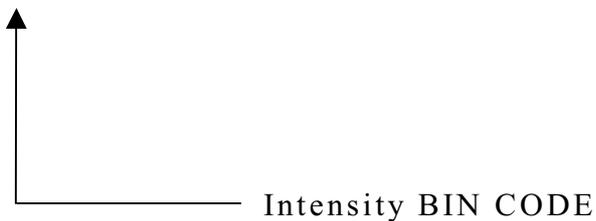
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● Intensity Bin Limits (At 20mA)

| BIN CODE | Min. (mcd) | Max. (mcd) |
|-----------------|-------------------|-------------------|
| X | 1600 | 2400 |
| Y | 2400 | 3700 |
| Z | 3700 | 5550 |
| ZA | 5550 | 8325 |

Tolerance for each Bin limit is $\pm 15\%$

● BIN : x



Notes:

1. Bin categories are established for classification of products.
Products may not be available in all bin categories.