



High power led 1.5W RGB

Features:

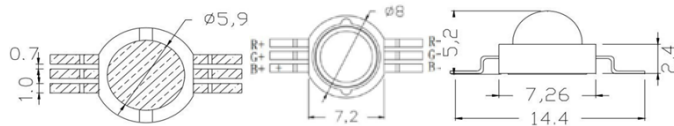
High brightness RGB LED round package

Light output intensity grade Viewing angle 140 degree

Light color: RGB

RoHS compliant

Dimensions:



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.1 mm unless otherwise noted.

Absolute Maximum Rating @ Ta=25°C

| Parameter | Symbol | Maximum Rating | Unit |
|---|--------|-----------------|------|
| Continuous Forward Current | IF | 150 | mA |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | IFp | 200 | mA |
| Reverse Voltage | VR | 5 | V |
| Power Dissipation | PD | 500 | mW |
| Electrostatic discharge | ESD | 1000 | V |
| Operating Temperature Range | TOPR | -25°C to +85°C | |
| Storage Temperature Range | TSTG | -35°C to +105°C | |
| Lead Soldering Temperature (3mm from the base of the epoxy bulb) | TSOL | 360°C | |

Electrical / Optical Characteristic @ Ta=25°C

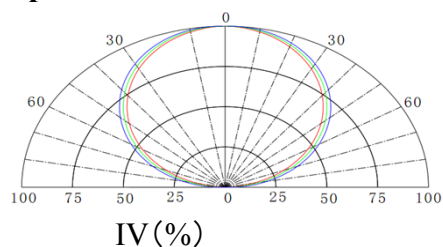
| Parameter | Symbol | Color | Min | Typ | Max | Unit | Test Condition |
|-----------------------------|---------|-------|-----|-------|-----|------|----------------|
| Forward Voltage | VF | R | 2.0 | 2.2 | 2.4 | V | IF=150 mA |
| | | G | 3.0 | 3.2 | 3.4 | V | IF=150 mA |
| | | B | 3.0 | 3.2 | 3.4 | V | IF=150 mA |
| Luminous Flux | Φ | R | 40 | 45 | 50 | Lm | IF=150 mA |
| | | G | 60 | 65 | 70 | Lm | IF=150 mA |
| | | B | 15 | 20 | 25 | Lm | IF=150 mA |
| Dominant Wavelength | Wld | R | 620 | 622.5 | 625 | nm | IF=150 mA |
| | | G | 520 | 522.5 | 525 | nm | IF=150 mA |
| | | B | 460 | 462.5 | 465 | nm | IF=150 mA |
| Reverse Current | IR | | | | 10 | μA | VR=5V |
| Viewing Angle | 2θ1/2 | | | 120 | 140 | deg | IF=350 mA |
| Recommended Forward Current | IF(rec) | RGB | | | 150 | mA | |

tolerance of measurement of forward voltage±0.1V

Typical Electrical / Optical Character Curves

(25 ° Ambient Temperature Unless Otherwise Noted)

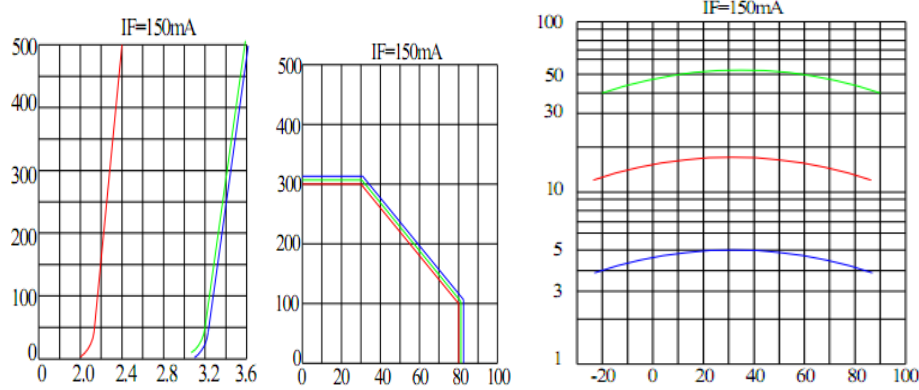
Spotial Distrtubtion



Typical electrical-optical

Characteristics curves

Forward characters Temperature characters Temperature characters
 Forward current(mA) Forward current(mA) Relative luminous Intensity



Notes:

The data are an typical presentation of the product,Contact customer service for details of technical information and warranty.The product is sensitive to staticantistatic operation environment is recommended. Products are shipped ineither bulk bag package or taping.

Reliability Tests

| Type | Test Item | REF Standard | Test Condition | Note | Number of Damaged |
|------------------------|------------------------------|-----------------------|--|------------|-------------------|
| Environmental Sequence | Temperature Cycle | JIS C 702 (1997)A-4 | - 20°C*30mins~25°C *5mins~ 80°C * 30mins | 100 cycles | 0/100 |
| | High Humidity Heat Cycle | JIS C 7021 (1997)A-5 | 30°C→65°C, RH= 90% 24hrs/1cycle | 10 cycles | 0/100 |
| | High Temperature Storage | JIS C 7021 (1997)B-10 | Ta= 80°C | 1000h | 0/100 |
| | Humidity Heat Storage | JIS C 7021 (1997)B-11 | Ta=60°C RH=90% | 1000h | 0/100 |
| | Low Temperature Storage | JIS C 7021 (1997)B-12 | Ta= -30°C | 1000h | 0/100 |
| Operation Sequence | DC Operatin Life | JIS C 7035 (1985) | Ta= 25°C, IF=350mA | 1000h | 0/100 |
| | High Humidity Heat Life Test | | Ta=60°C RH=90% IF=350mA | 500h | 0/100 |

| | | | | | |
|----------------------|------------------------------|-----------------------|---|----------------------|-------|
| | Low Temperature Life Test | | Ta= -20°C, IF=350m | 1000h | 0/100 |
| Destructive Sequence | Resistance to Soldering Heat | JIS C 7021 (1997)A-11 | Tsol=260±5°C, 10sec (3mm from the base of the epoxy bulb) | 1 time | 0/20 |
| | Solderability | JIS C 7021 (1997)A-2 | Tsol=235 ±5°C, 5sec (Using flux) | 1 time (over 95%) | 0/20 |
| | Lead Pull/Bend Test | JIS C 7021 (1997)A-11 | Load 2.5N (0.25kgf) 0°→90°→0° Bending 3 times | No noticeable damage | 0/20 |

***Refer to reliability test standard specification for in this line.**