

ЧИП-СВЕТОДИОД ARL-5060RGB



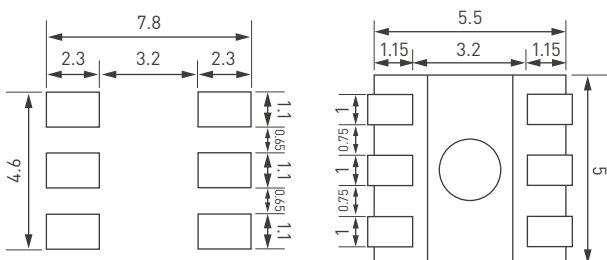
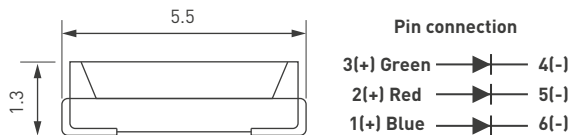
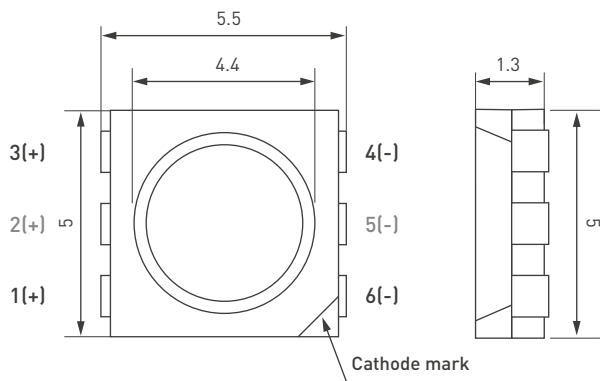
FEATURES

- Low voltage operation
- Instantly light
- Long operating life

APPLICATIONS

- General lighting, backlighting
- Spot light, ceiling light
- Urban lighting, commercial lighting show

PACKAGE DIMENSIONS



Notes: All dimensions in mm tolerance is ± 0.1 mm unless otherwise noted.

PARAMETERS

| | |
|---------|-------------|
| Article | 015150(1) |
| Model | ARL-5060RGB |

ABSOLUTE MAXIMUM RATINGS ($T_A = +25^\circ\text{C}$)

| Parameter | Symbol | Rating | | Unit |
|-----------------------------|-----------|-----------|------|------------------|
| | | R | G/B | |
| DC Forward Current | I_F | 20 | | mA |
| Peak Pulse Current* | I_{FP} | 40 | | mA |
| Reverse Voltage | V_R | 5 | | V |
| Power Dissipation | P_D | 0.06 | 0.06 | W |
| Operating Temperature Range | T_{opr} | -30...+75 | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -40...+85 | | $^\circ\text{C}$ |
| LED Junction Temperature | T_J | 125 | | $^\circ\text{C}$ |

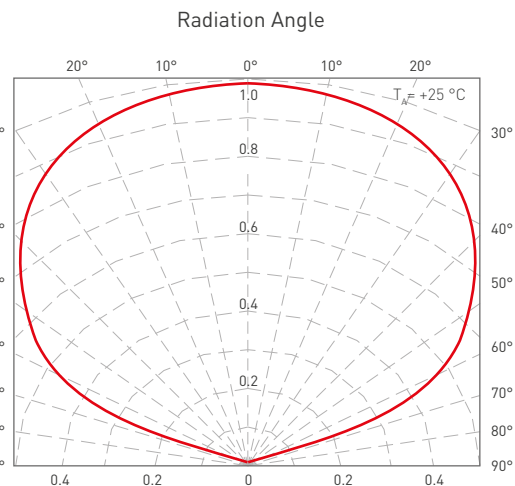
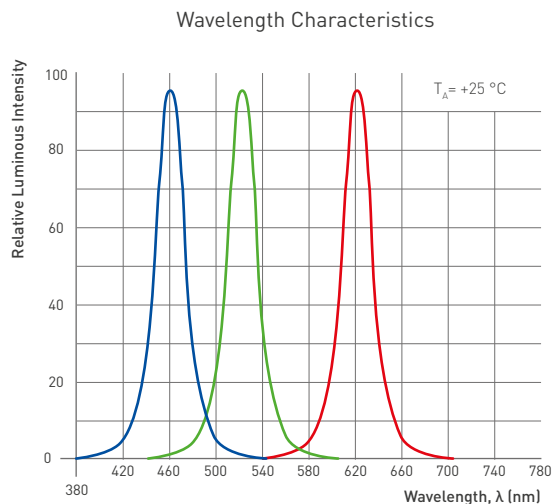
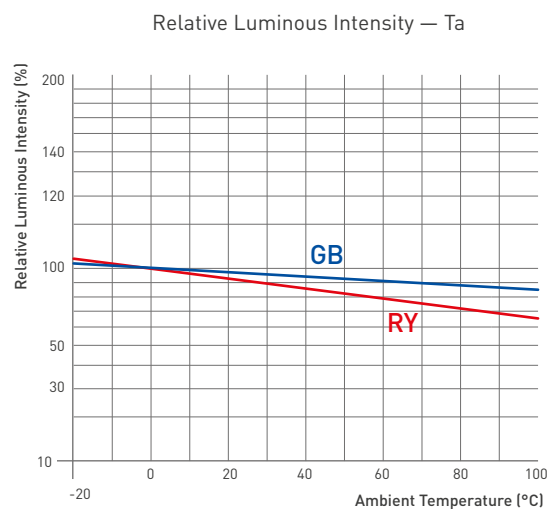
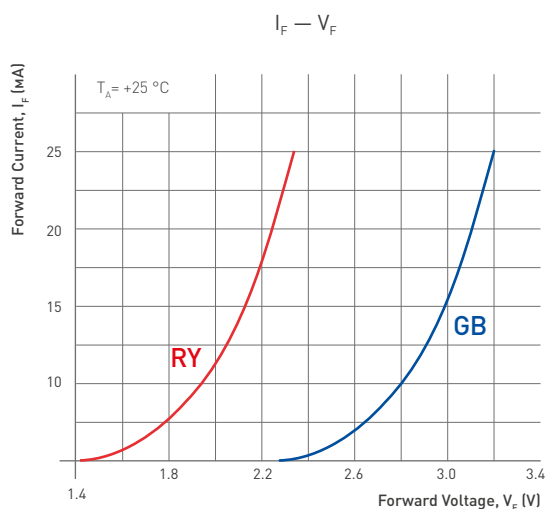
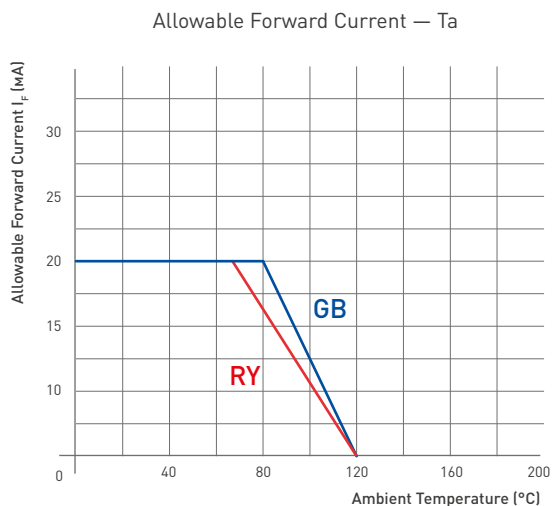
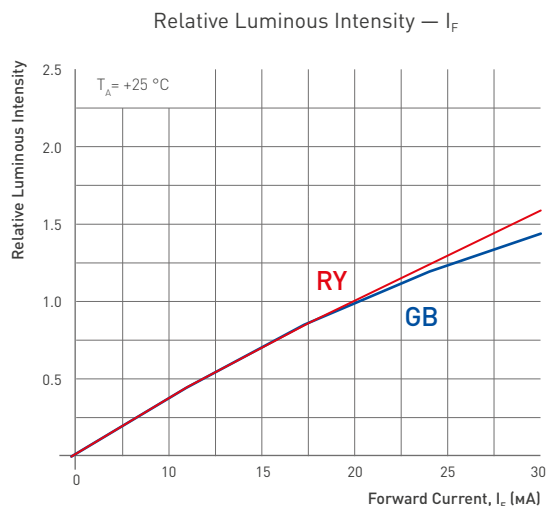
Notes: 1/10 Duty Cycle 0.1ms Pulse Width.

ELECTRICAL/OPTICAL CHARACTERISTICS-WHITE ($T_A = +25^\circ\text{C}$)

| Parameter | Symb. | Conditions | Min | Max | Min | Max | Min | Max | Unit |
|--|-----------------------|-------------------|-----|-----|------|------|-----|-----|----------------------------|
| | | | R | | G | | B | | |
| Forward Voltage | V_F | $I_F=20\text{mA}$ | 2.0 | 2.4 | 3.0 | 3.4 | 3.0 | 3.4 | V |
| Thermal Resistance Junction to Board | $R\theta_{J-B}$ | $I_F=20\text{mA}$ | 10 | | 10 | | 10 | | $^\circ\text{C}/\text{W}$ |
| Luminous Intensity | I_v | $I_F=20\text{mA}$ | 200 | 300 | 1000 | 1500 | 250 | 350 | mcd |
| Dominant wavelength | λ_d | $I_F=20\text{mA}$ | 620 | 630 | 520 | 530 | 460 | 470 | nm |
| Temperature Coefficient of Forward Voltage | $\Delta V_F/\Delta T$ | $I_F=20\text{mA}$ | 2 | | 2 | | 2 | | $\text{mV}/^\circ\text{C}$ |
| Viewing Angle ⁽¹⁾ | $2\theta_{1/2}$ | $I_F=20\text{mA}$ | | | 120 | | | | Deg |
| Reverse Current | I_R | $V_R=5\text{V}$ | 10 | | 10 | | 10 | | μA |

Notes: Voltage of 0.2V

TYPICAL OPTICAL/ELECTRICAL CHARACTERISTICS CURVES ($T_A = +25\text{ }^\circ\text{C}$, UNLESS OTHERWISE NOTED)

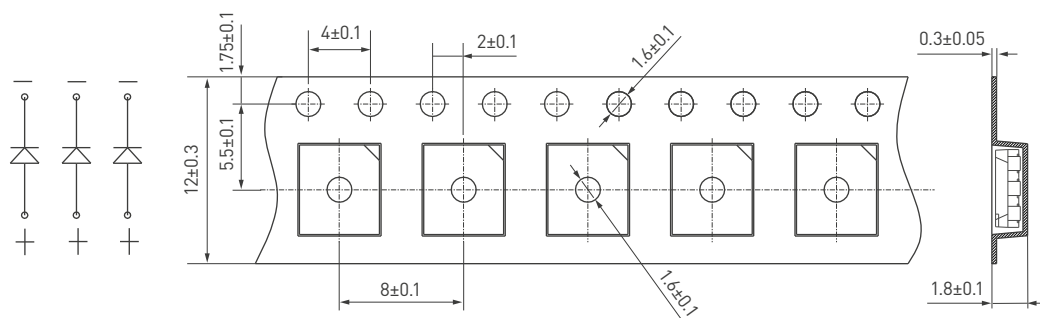


RELIABILITY TEST STANDARDS

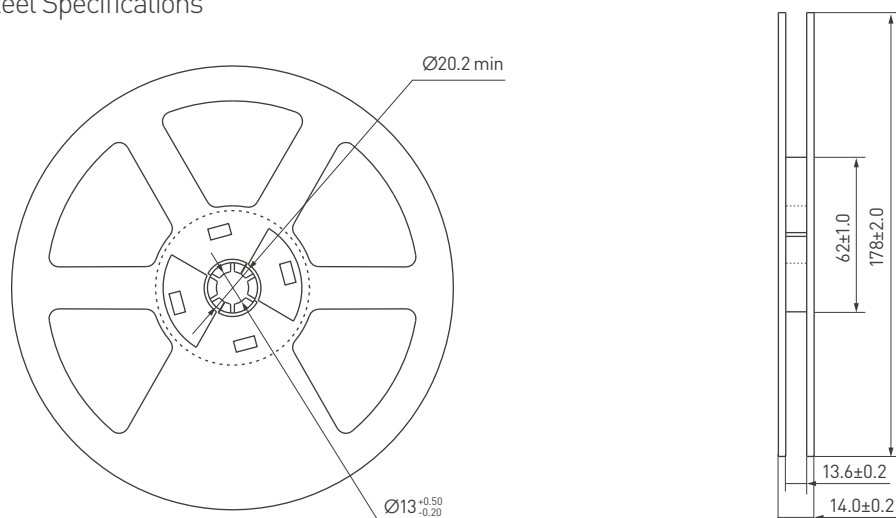
| Type | Test Item | Reference Standard | Test Condition | Duration | Sample Count | Accept |
|------|-------------------------------------|------------------------------|--|-------------------|--------------|-------------|
| | Temperature Cycle | JESD22-A104-A | -40... +25... +100... +25 °C 30 min, 5 min, 30 min, 5 min | 100 cycles | 22 | 0/22 |
| | Thermal Shock | JESD22-A106 | -40... +100 °C 30 min, 30 min | 100 cycles | 22 | 0/22 |
| | High Temperature Storage | JEITA ED-4701 200 201 | T_A=100±5 °C | 1000 hrs | 22 | 0/22 |
| | Low Temperature Storage | JEITA ED-4701 200 202 | T_A=-40±5 °C | 1000 hrs | 22 | 0/22 |
| | Humidity Heat Storage | JIS C 7021(1977) B-11 | T_A=60 °C R_H=85% | 1000 hrs | 22 | 0/22 |
| | Life Test | JESD22-A108-A | T_A=25 °C I_f=20*3mA | 1000 hrs | 22 | 0/22 |
| | High Humidity Heat Life Test | JESD22-A101 | T_A=60 °C R_H=85% I_F=20*3mA | 1000 hrs | 22 | 0/22 |
| | Resistance to Soldering Heat | JESD22-A113 | I_R soldering 245 °C/10sec | 1 time | 22 | 0/22 |

PACKING STANDARD

Normal packing quantity: 1000 pcs/reel



Reel Specifications



Moisture Resistant Packaging

