

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AAAF3528PBGSEJ3VGAW

Blue
Hyper Red
Green

Features

- Outstanding material efficiency.
- Low power consumption.
- Can produce any color in visible spectrum, including white light.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Package: 1500pcs / reel .
- Moisture sensitivity level : level 4.
- RoHS compliant.

Description

The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

The Hyper Red device is based on light emitting diode chip made from AlGaInP.

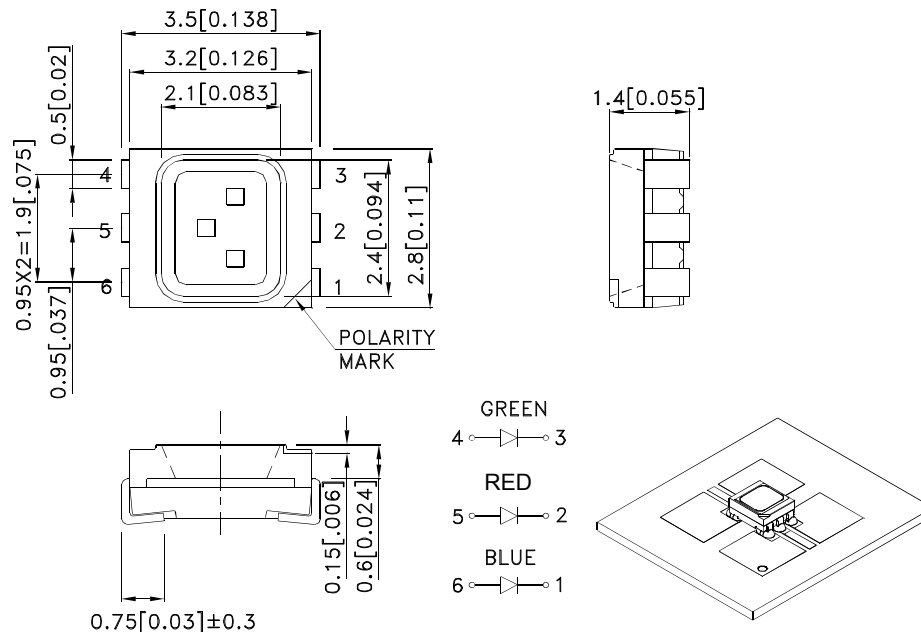
The Green source color devices are made with InGaN on G-SiC Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.2(0.008)$ unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|---------------------|---------------------|----------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| AAAF3528PBGSEJ3VGAW | Blue (InGaN) | WHITE DIFFUSED | 50 | 100 | 120° |
| | Hyper Red (AlGaInP) | | 900 | 1700 | |
| | Green (InGaN) | | 110 | 330 | |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|----------------------------|-------------------|----------------|-------|-----------------|
| λpeak | Peak Wavelength | Blue Hyper Red Green | 468 640 520 | | nm | If=20mA |
| λD [1] | Dominant Wavelength | Blue Hyper Red Green | 470 625 525 | | nm | If=20mA |
| Δλ1/2 | Spectral Line Half-width | Blue Hyper Red Green | 21 25 35 | | nm | If=20mA |
| C | Capacitance | Blue Hyper Red Green | 100 27 100 | | pF | Vf=0V;f=1MHz |
| Vf [2] | Forward Voltage | Blue Hyper Red Green | 3.2 2.2 3.2 | 4 2.8 4 | V | If=20mA |
| IR | Reverse Current | Blue Hyper Red Green | | 10 10 10 | uA | VR=5V |

Notes:

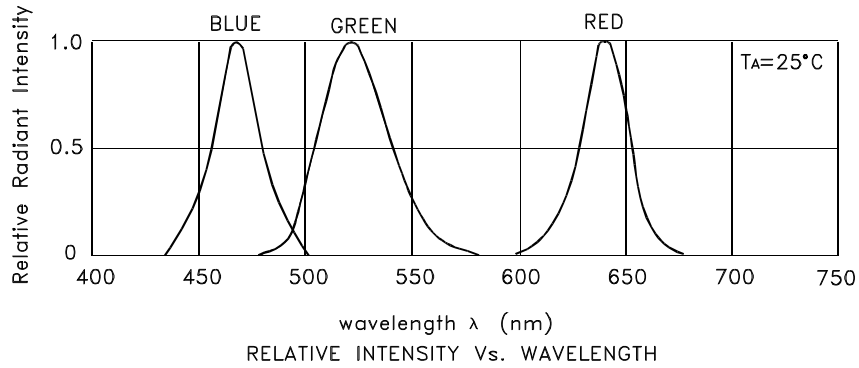
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

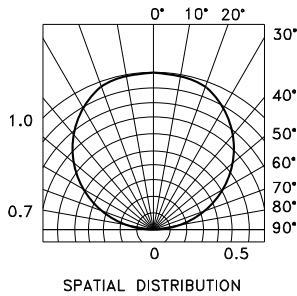
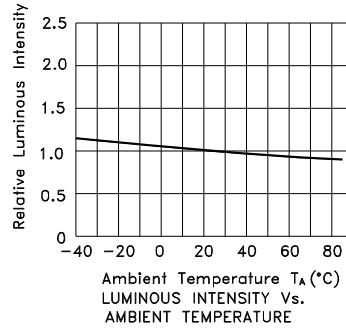
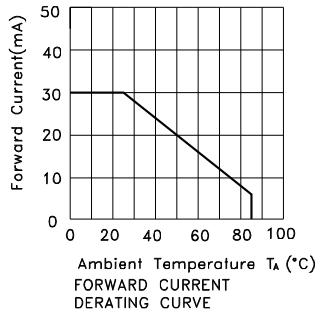
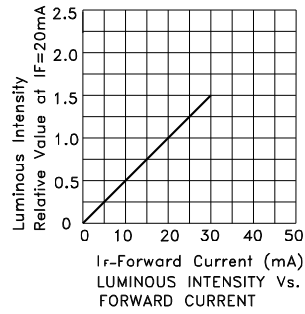
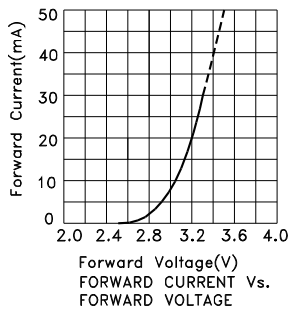
| Parameter | Blue | Hyper Red | Green | Units |
|--------------------------|----------------|-----------|-------|-------|
| Power dissipation | 120 | 140 | 120 | mW |
| DC Forward Current | 30 | 50 | 30 | mA |
| Peak Forward Current [1] | 100 | 150 | 100 | mA |
| Reverse Voltage | 5 | | | V |
| Operating Temperature | -40°C To +85°C | | | |
| Storage Temperature | -40°C To +85°C | | | |

Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

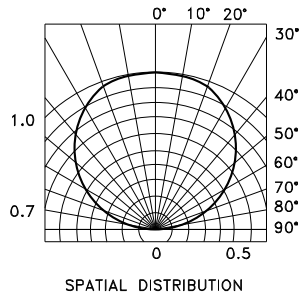
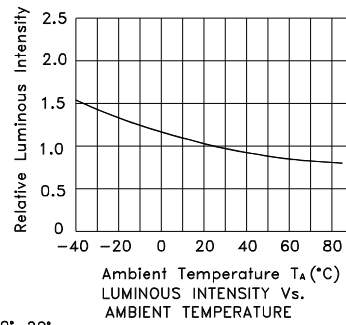
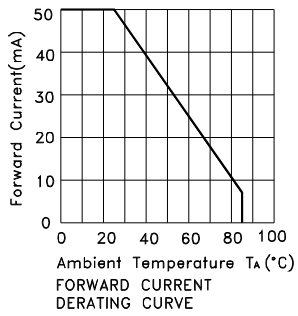
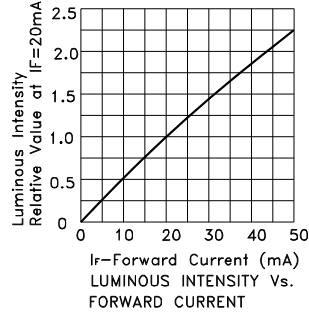
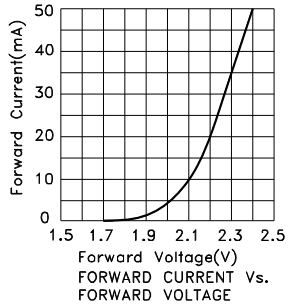


AAAF3528PBGSEJ3VGAW
Blue

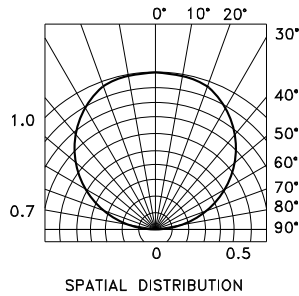
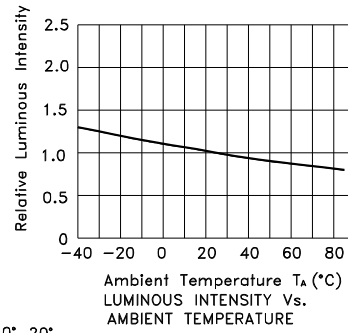
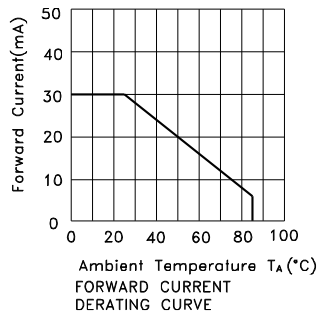
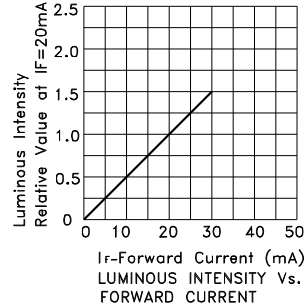
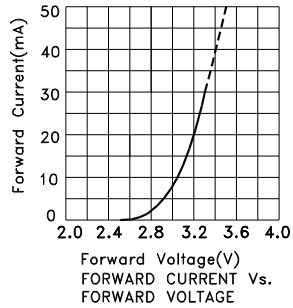


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Hyper Red



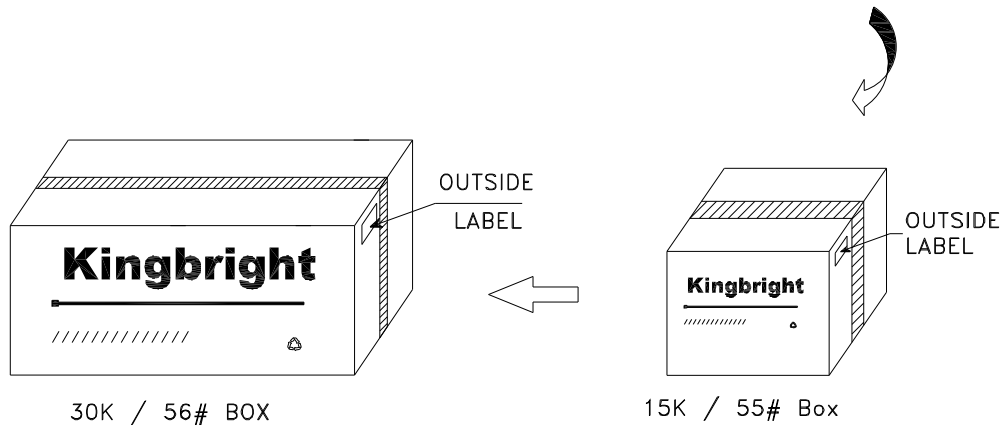
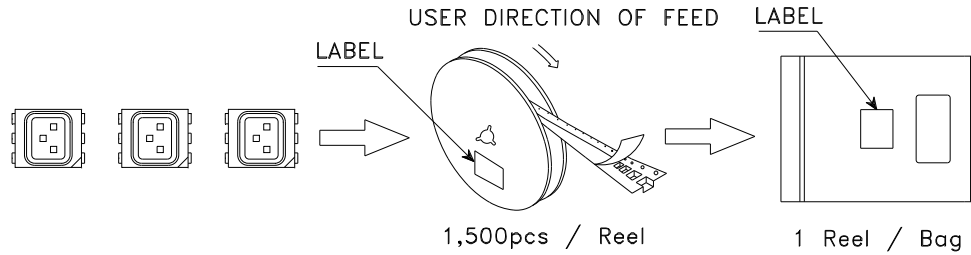
Green




Kingbright

PACKING & LABEL SPECIFICATIONS

AAAF3528PBGSEJ3VGAW



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|--|--|
| Kingbright | |
| P/NO: AAAF3528xxx | |
| QTY: 1,500 pcs | Q.C. Q C xx xx xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  xxxxxxxxxxxxxxxxxxxxxxxx | |
| RoHS Compliant | |