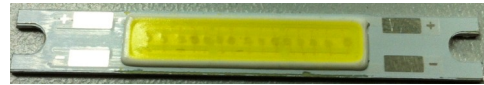


HL-LB001D20W-5B5C3 White



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



Features

- Dimension: 50mm×7mm×1.8mm
- Single color.
- Emitting Color: White
- Easy installation with screws.
- Package: 100pcs/white box.
- High efficiency.
- Low power consumption.
- Long operating lifespan.
- High heat dissipation efficiency.
- RoHS compliant.

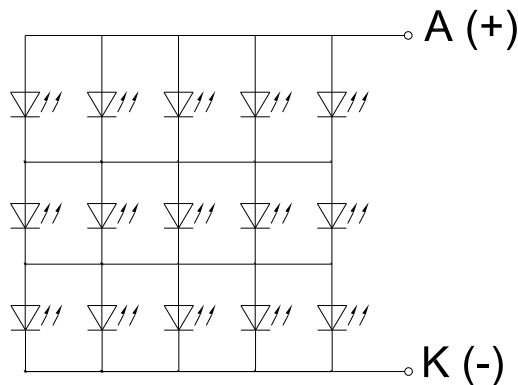
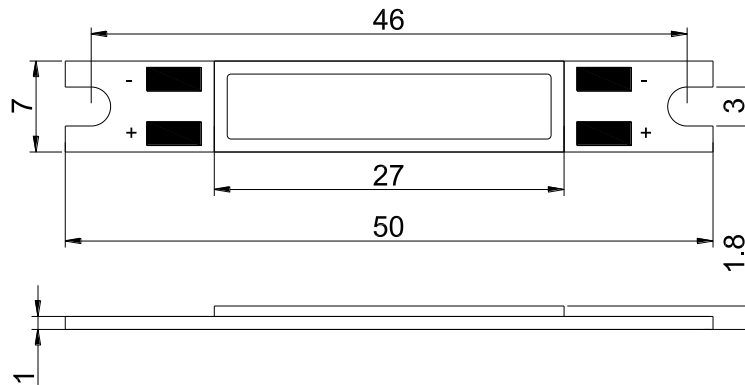
Description

The White source color devices are made with GaN on sapphire White Light Emitting Diode.

Applications

- Reading Lamp.
- Street Lamp.
- LED Backlight.
- Energy Saving Lamp.
- Decorative and Entertainment Lighting.
- Indoor and Outdoor Commercial Lighting.

Package Dimensions



Notes:

1. All dimension units are millimeters.

HL-LB001D20W-5B5C3 White

Device Selection Guide

| Part No. | Chip | | Lens Color |
|--------------------|----------|----------------|-----------------|
| | Material | Emitting Color | |
| HL-LB001D20W-5B5C3 | GaN | White | Yellow Diffused |

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Min. | Typ. | Max. | Units | Test Conditions |
|--------|----------------------|--------|------|------|------|-------|-----------------|
| VF | Forward Voltage (1) | White | — | 9.5 | — | V | IF=500mA |
| 2θ1/2 | Viewing Angle(2) | White | — | 120 | — | deg | IF=500mA |
| Φv | Luminous Flux(3) | White | 360 | 420 | — | lm | IF=500mA |
| TC | Color Temperature(4) | White | 6020 | | 7040 | k | IF=500mA |

Note:

1. Forward Voltage is measured with an accuracy of $\pm 0.1\text{v}$.
2. $\theta_{1/2}$ is the angle from optical centerline where the luminous flux is 1/2 the optical centerline value.
3. Luminous intensity is measured with the accuracy of $\pm 10\%$.
4. Color temperature measured with the accuracy $\pm 200\text{K}$.

Absolute Maximum Ratings at TA=25°C

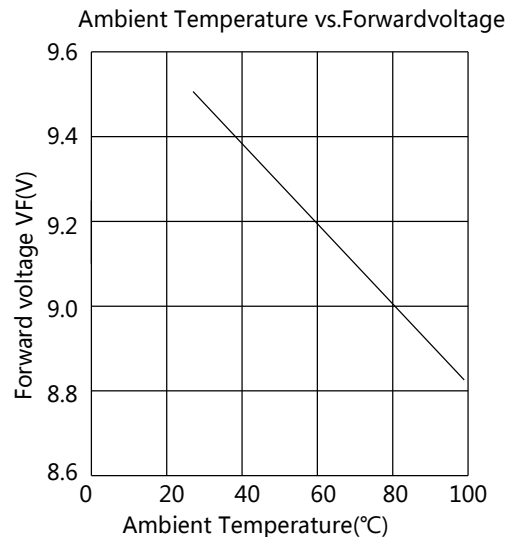
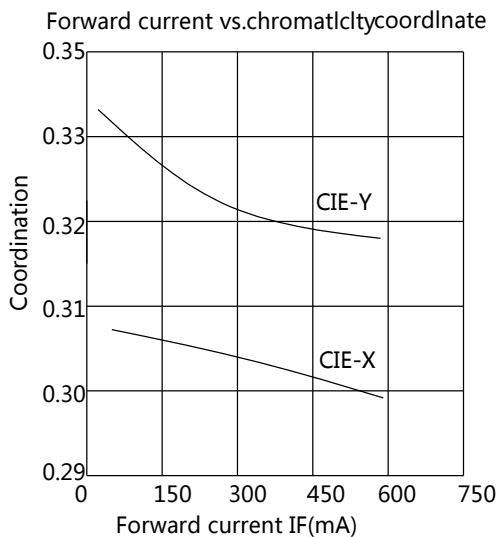
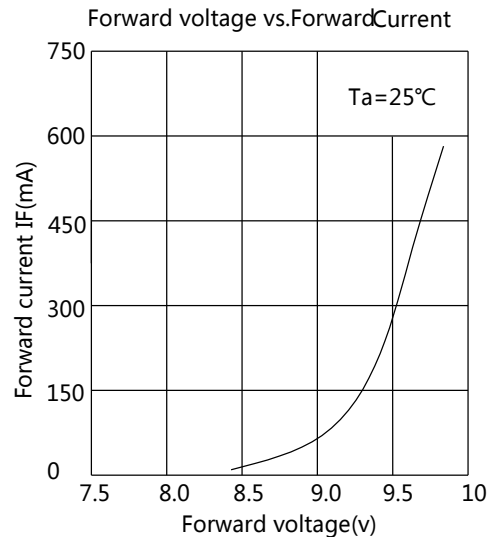
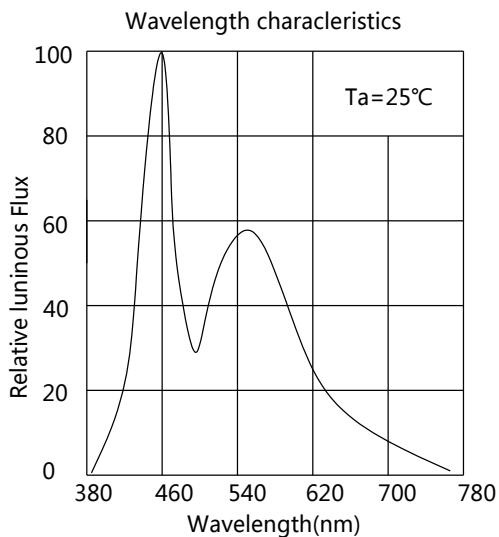
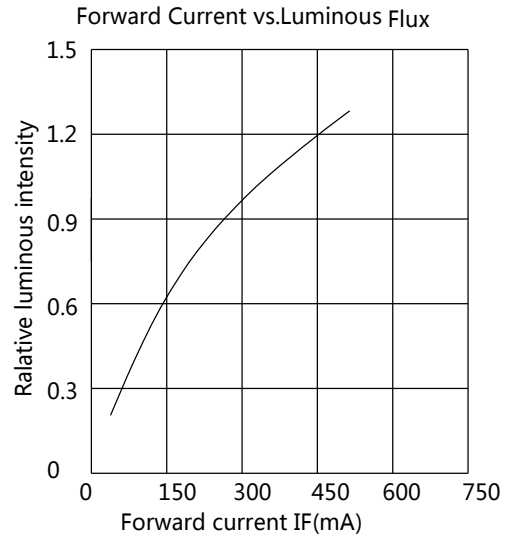
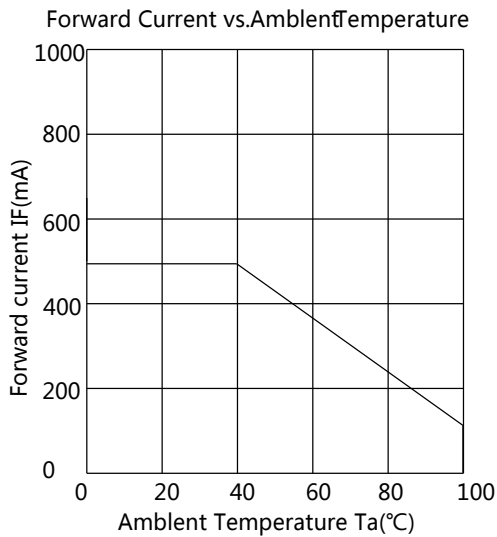
| Parameter | White | Units |
|-------------------------------------|-----------------|-------|
| Power dissipation | 5 | W |
| DC Forward Current | 500 | mA |
| Peak Forward Current [1] | 1000 | mA |
| Reverse Voltage | 5 | V |
| ESD Sensitivity | 500 | V |
| Junction temperature | 125 | °C |
| Soldering temperature | 260 | °C |
| Manual Soldering time at 260°C(Max) | 5 | sec |
| Operating Temperature Range | -40°C To +100°C | |
| Storage Temperature Range | -40°C To +120°C | |

Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. The temperature of Aluminum PCB dose not exceed 55°C

HL-LB001D20W-5B5C3 White

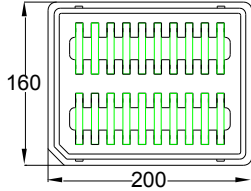
Typical Optical and Electrical Characteristics Curves



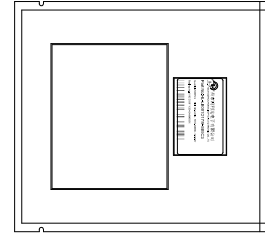
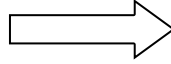
HL-LB001D20W-5B5C3 White

Tape Specifications

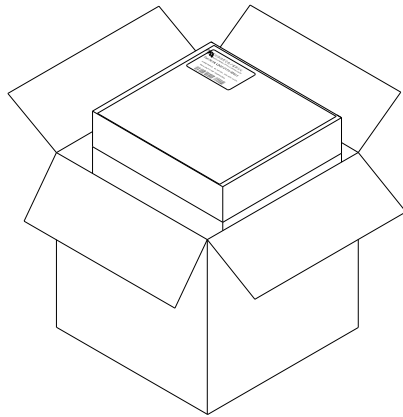
(Units : mm)



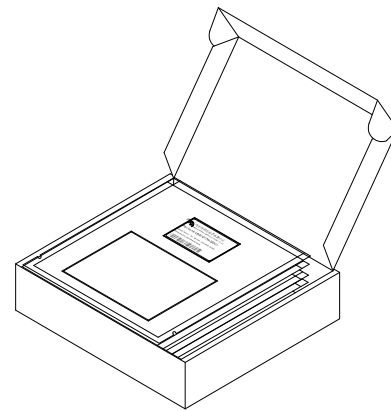
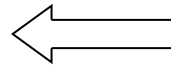
Tray:20PCS



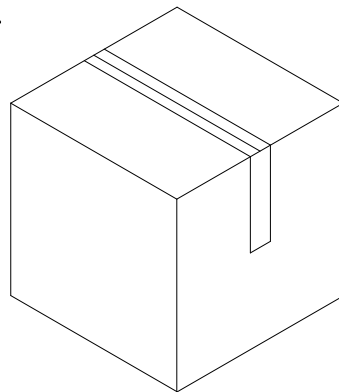
1Tray/ESD Shielding Bag:20PCS



5Inner Box/Outer Box:500PCS



5Bags/Inner Box:100PCS



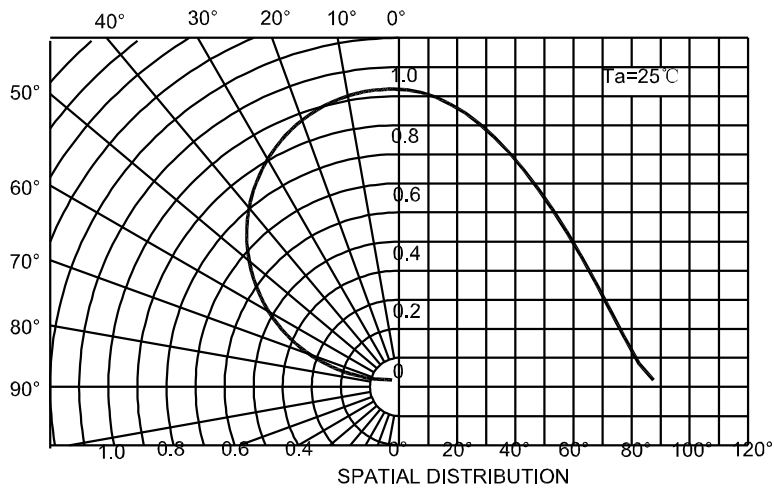
Outer Box:500PCS

Note:

1.Package storage condition will be limited temperature 20~30℃.

HL-LB001D20W-5B5C3 White

Spatial Distribution Graph



Product Thermal Application Information

When assembling on PCB or heatsink carrier, thermal grease should be evenly spreaded with a thickness <math>< 100\mu\text{m}</math>.

