



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

HL-PSC-2012H203BC

BLUE



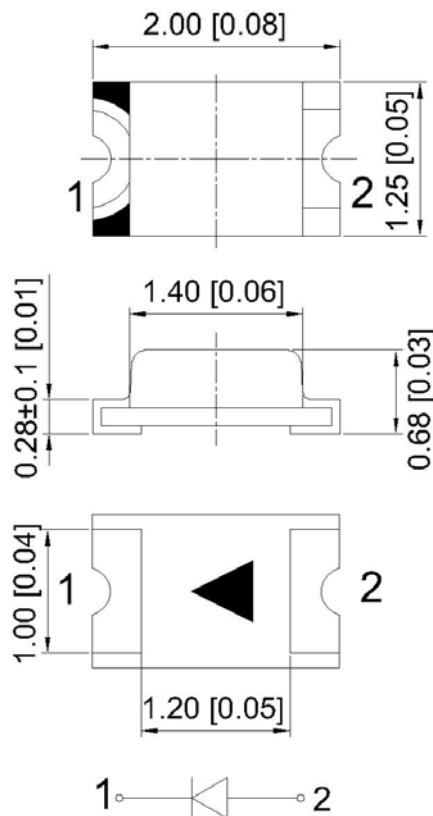
Features

- 2.0mmX1.25mm SMT LED, 0.68mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 3000PCS / REEL .

Description

The Blue source color devices are made with GaN on substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ± 0.2 mm unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20mA | | Viewing Angle |
|-------------------|------------|-------------|--------------------|------|------------------|
| | | | Min. | Typ. | 2θ1/2 |
| HL-PSC-2012H203BC | BLUE (GaN) | WATER CLEAR | 125 | 170 | 120° |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Min. | Typ. | Units | Test Conditions |
|--------|---------------------|--------|------|------|-------|-----------------|
| λD | Dominant Wavelength | Blue | 465 | 470 | nm | IF=20mA |
| C | Capacitance | Blue | | 110 | pF | VF=0V;f=1MHz |
| VF | Forward Voltage | Blue | 3.0 | 3.2 | V | IF=20mA |
| IR | Reverse Current | Blue | — | 5 | uA | VR= 5V |

Absolute Maximum Ratings at TA=25°C

| Parameter | Blue | Units |
|---------------------------------|----------------|-------|
| Power dissipation | 114 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 160 | mA |
| Reverse Voltage | 5 | V |
| Operating / Storage Temperature | -40°C To +85°C | |

Note:

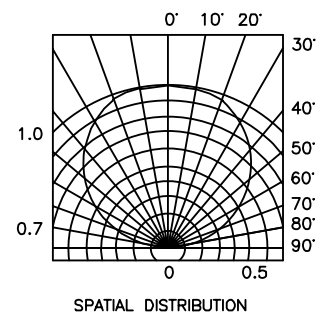
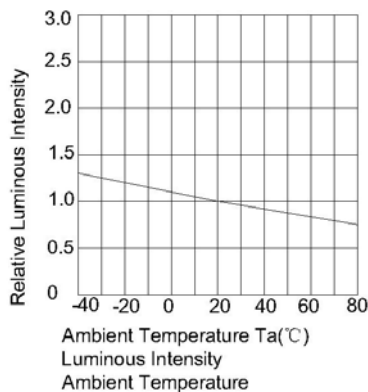
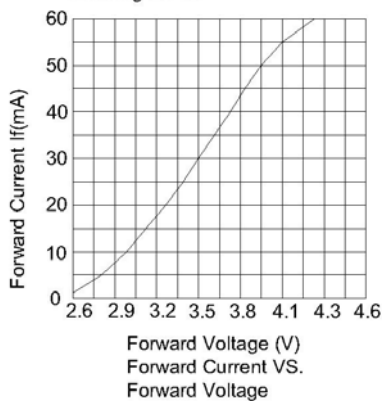
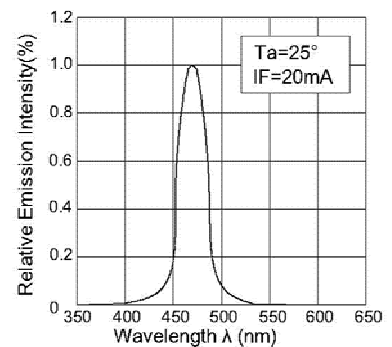
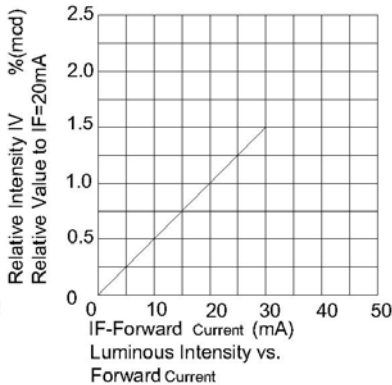
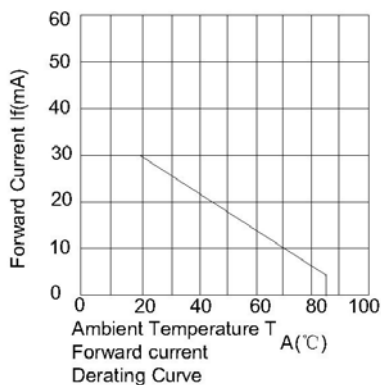
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

BLUE
HL-PSC-2012H203BC
Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.
 Confidence level :90% LTPD :10%

| No. | Items | Test Condition | Test Hours/Cycles | Sample Size | Ac/Rc |
|-----|--------------------------------|---|-------------------|-------------|-------|
| 1 | Reflow | Temp:260°C max T=5 sec max. | 1times. | 22Pcs. | 0/1 |
| 2 | Temperature Cycle | 100°C±5°C 30 min. ↑↓5 min -40°C±5°C 30 min. | 100 Cycles | 22Pcs. | 0/1 |
| 3 | Thermal Shock | 100°C±5°C 5 min. ↑↓ -40°C±5°C 5 min. | 100 Cycles | 22Pcs. | 0/1 |
| 4 | High Temperature Storage | Temp.:100°C±5°C | 1000Hrs. | 22Pcs. | 0/1 |
| 5 | Low Temperature Storage | Temp.: -40°C±5°C | 1000Hrs. | 22Pcs. | 0/1 |
| 6 | DC Operating Life | Ta=25°C±5°C IF=20mA | 1000Hrs. | 22Pcs. | 0/1 |
| 7 | High Temperature/High Humidity | 85°C±5°C/ 85%RH IF=5mA | 1000Hrs. | 22Pcs. | 0/1 |

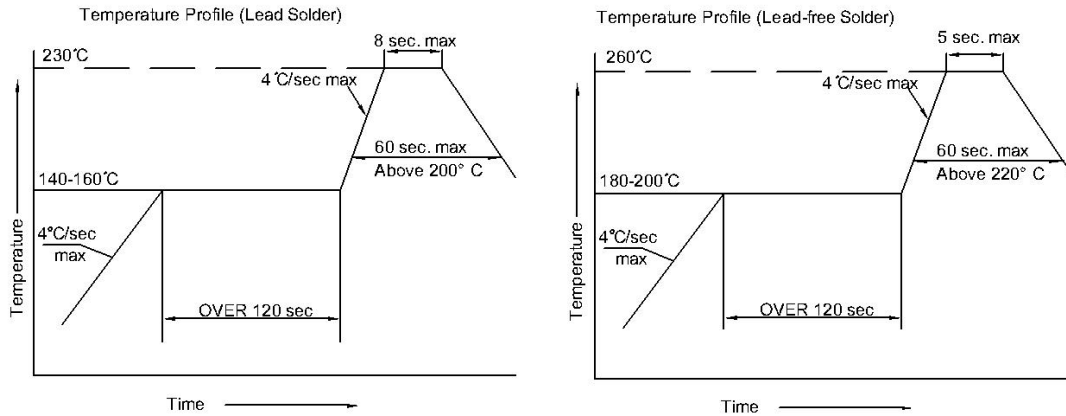
*The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.



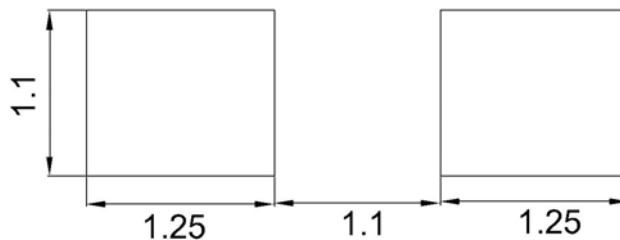
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SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



Recommended Soldering Pattern (Units : mm)



Tape Specifications (Units : mm)

