



High Brightness LED Emitter

AL-S 65 Watt Series Specifications

LED Product features:

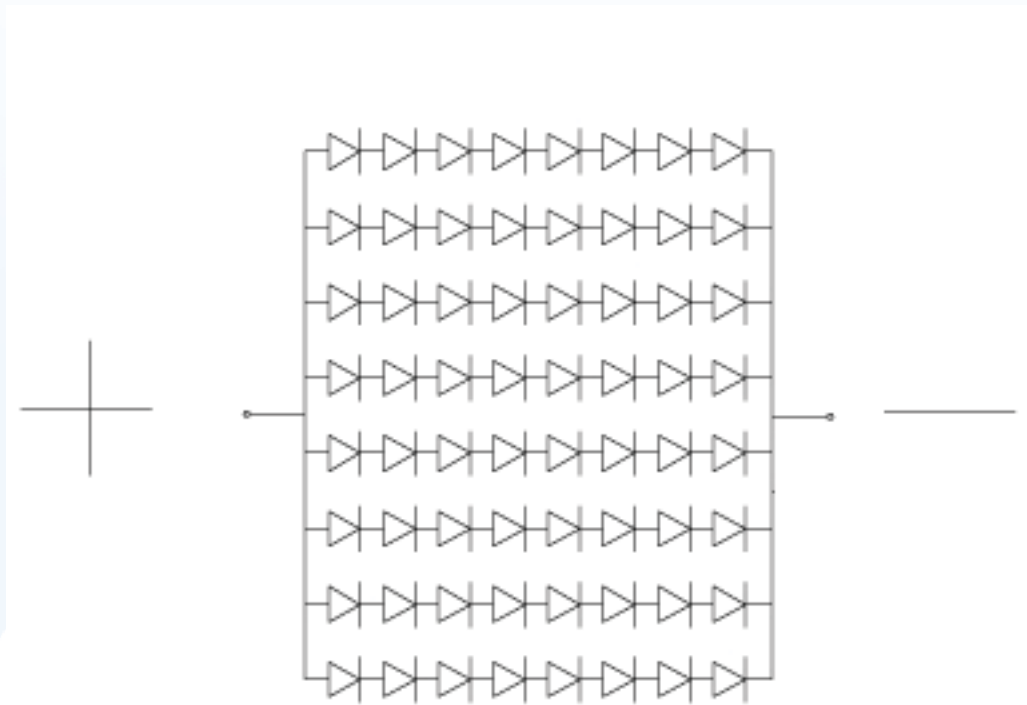
High Efficiency and Reliability
Low Power Consumption
Over 100,000 hour life span



ALTA LED

AL-S Series Specifications

Chip Dimensions



All dimensions are in millimeters (mm).

ALTA LED



AL-S Series Specifications

Maximum Ratings at Ta = 25° C

| Parameter | Symbol | Rating | Unit |
|-----------------------|--------------|------------|------|
| DC Forward Current | If | 2.8 | A |
| Operating Temperature | Topr | -20 to +60 | °C |
| Storage Temperature | Tstg | -30 to +80 | °C |
| Junction Temperature | Tj | 120 | °C |
| Peak Forward Current | Ifp (Peak) * | 6000 | mA |
| Reverse Voltage | Vr | 35 | V |

* Ifp Conditions – Pulse Width \leq 1msec / Duty \leq 1/10.

Forward Voltage and Luminance Ranking

| Part Number | Color | Condition If (A) | CCT Range (K) | | | Luminous Flux | | Forward Voltage (V) | | |
|-------------|------------|---------------------|---------------|------|------|---------------|------|---------------------|-------|-------|
| | | | Min. | Typ. | Max. | Min. | Max. | Min. | Typ. | Max. |
| AL-S-65W-50 | Cool White | 2.8 | 5000 | - | 6500 | 5900 | 7000 | 23.30 | 24.90 | 28.00 |
| AL-S-65W-30 | Warm White | 2.8 | 2900 | - | 3500 | 4600 | 5000 | 23.30 | 24.90 | 28.00 |

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Characteristic Curves, Ta = 25° C

Fig1. Relative Intensity vs. Wavelength

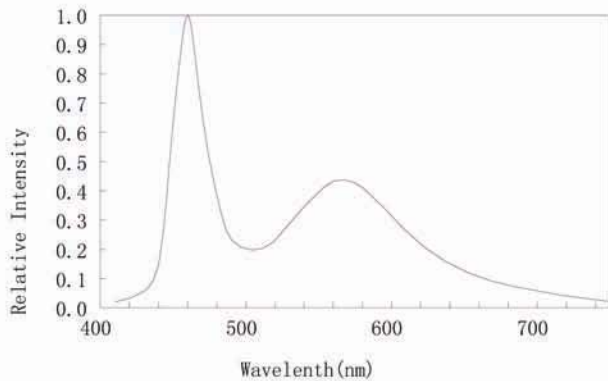


Fig2. Forward Current vs. Forward Voltage

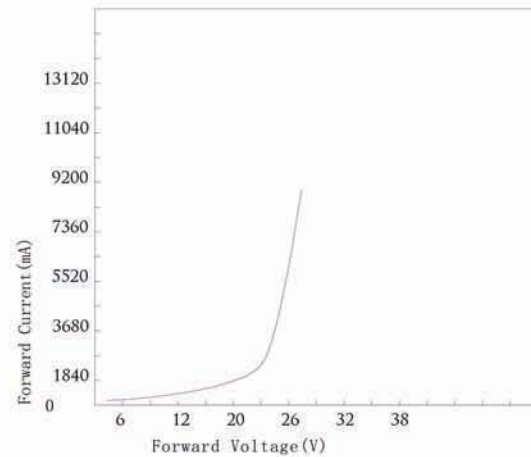


Fig3. Forward Current vs. Relative Intensity

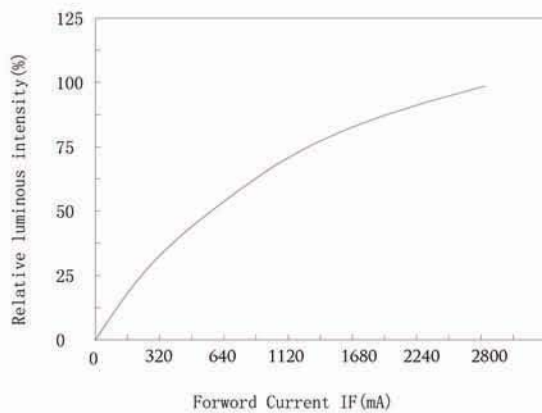
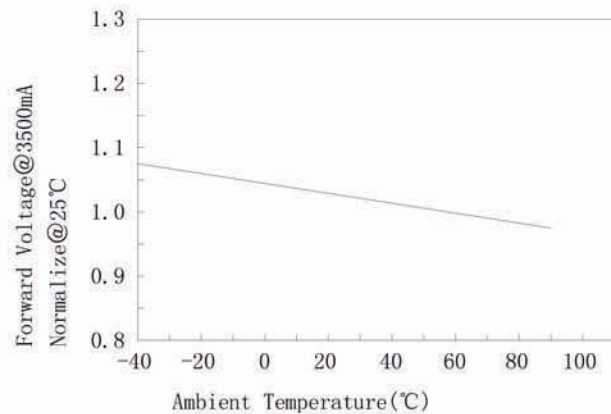


Fig4. Forward Voltage vs. Temperature





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Precautions for use

Manual Soldering

The tip temperature of soldering iron should not exceed 300°C; soldering time should not exceed 3 seconds. Soldering position must be 3mm out of led colloid.

ESD countermeasure

Static electricity and high volt can damage LED, The production whose Die material is InGaN must strictly required to prevent ESD, Must put on static glove and static fillet, Soldering tool and the cover of device must connect the ground, soldering condition follows the related stating of production specification manual.

Constant current drive

Need to add constant current drive in circuit in order to avoid damaging led due to big current and voltage fluctuation.

Storage time

A) LED can be stored for a year under the condition: the temperature of 5°C ~35°C and humidity of RH60% ,These production must be re-inspected and tested before use if their storage time exceed a year.

B) If LED is exposed in air for a week under the condition: the temperatures of 5°C ~35°C, humidity of RH60%, must place the ambience of 65°C ±5°C for 24 hours and use it in 15 days for best.

Cleaning

Be careful of some chemical results in the LED colloid fades and damage when using chemical clean the LED, such as chloroethylene, acetone etc. Can use ethanol to wash or soak LED but the time don't exceed 3 minutes.