### 3x2.4mm SMD CHIP LED LAMP

Part Number: AP23ESGC-F01

High Efficiency Red Super Bright Green

### **Features**

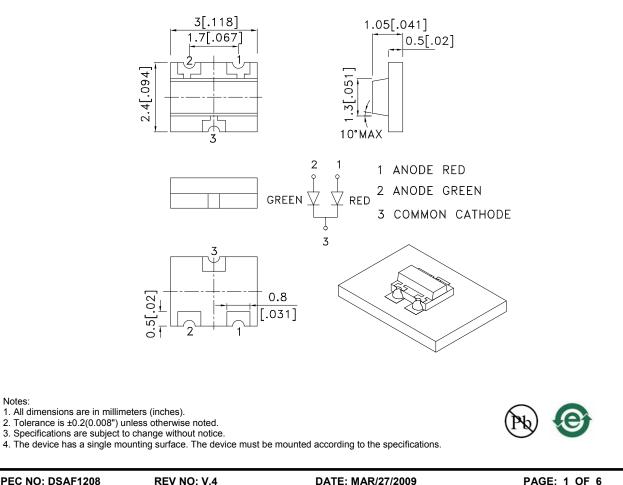
- 3mmx2.4mm SMT LED, 1.05mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

#### Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### **Package Dimensions**



SPEC NO: DSAF1208 **APPROVED: WYNEC** 

Notes:

**CHECKED: Allen Liu** 

DATE: MAR/27/2009 DRAWN: X.M.He

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| Selection Guide |                                 |             |      |      |        |  |  |
|-----------------|---------------------------------|-------------|------|------|--------|--|--|
| Part No.        | Dice                            | Lens Type   | Min. | Тур. | 201/2  |  |  |
| AP23ESGC-F01    | High Efficiency Red (GaAsP/GaP) | WATER CLEAR | 7    | 20   | - 120° |  |  |
|                 | Super Bright Green (GaP)        | WATER CLEAR | 7    | 20   |        |  |  |

Notes: 1.  $\theta$ 1/2 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                                    | Тур.       | Max.       | Units | Test Conditions |
|--------|--------------------------|---|------------|------------|-------|-----------------|
| λpeak  | Peak Wavelength          | High Efficiency Red<br>Super Bright Green | 627<br>565 |            | nm    | I⊧=20mA         |
| λD [1] | Dominant Wavelength      | High Efficiency Red<br>Super Bright Green | 625<br>568 |            | nm    | I⊧=20mA         |
| Δλ1/2  | Spectral Line Half-width | High Efficiency Red<br>Super Bright Green | 45<br>30   |            | nm    | I⊧=20mA         |
| С      | Capacitance              | High Efficiency Red<br>Super Bright Green | 15<br>15   |            | pF    | VF=0V;f=1MHz    |
| Vf [2] | Forward Voltage          | High Efficiency Red<br>Super Bright Green | 2<br>2.2   | 2.5<br>2.5 | V     | I⊧=20mA         |
| lr     | Reverse Current          | High Efficiency Red<br>Super Bright Green |            | 10<br>10   | uA    | VR = 5V         |

Notes:

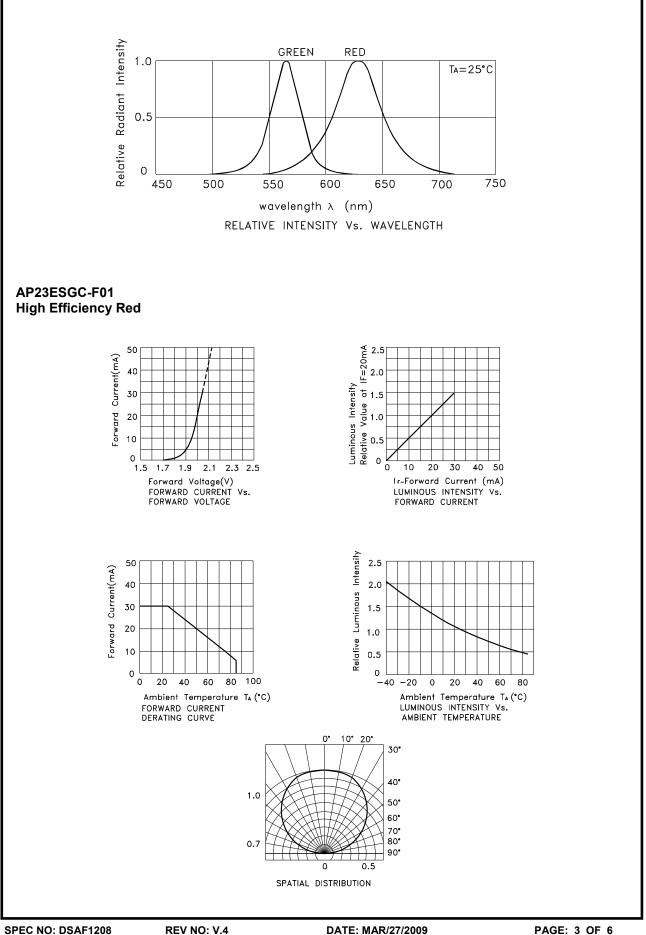
1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

### Absolute Maximum Ratings at TA=25°C

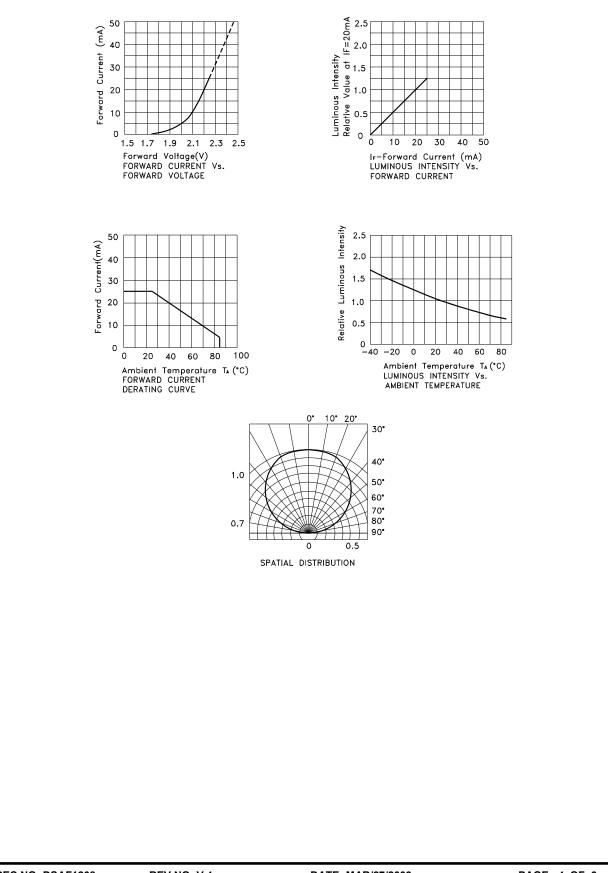
| Parameter                | High Efficiency Red | Super Bright Green | Units |  |  |
|--------------------------|---------------------|--------------------|-------|--|--|
| Power dissipation        | 75                  | 62.5               | mW    |  |  |
| DC Forward Current       | 30                  | 25                 | mA    |  |  |
| Peak Forward Current [1] | 160                 | 140                | mA    |  |  |
| Reverse Voltage          |                     | 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.



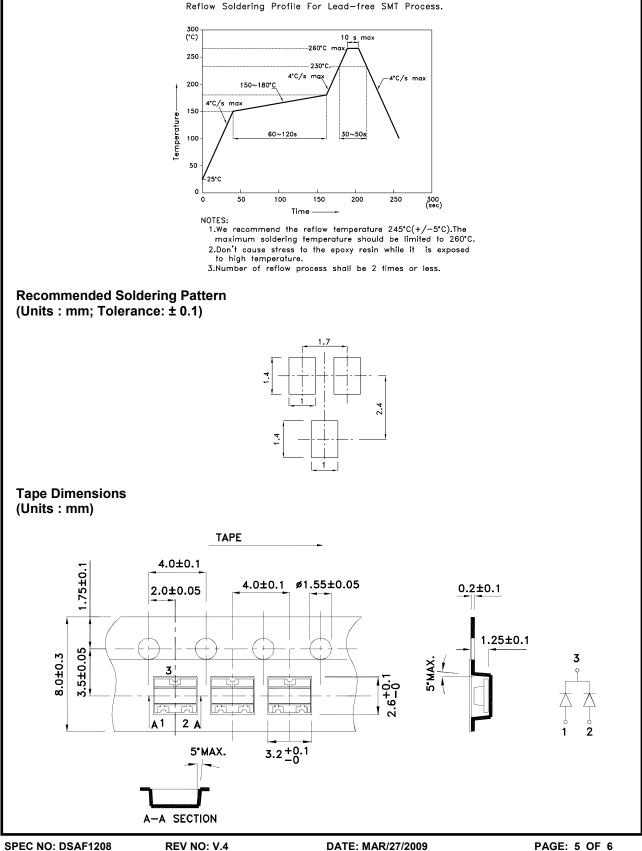
### Super Bright Green



### AP23ESGC-F01

Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

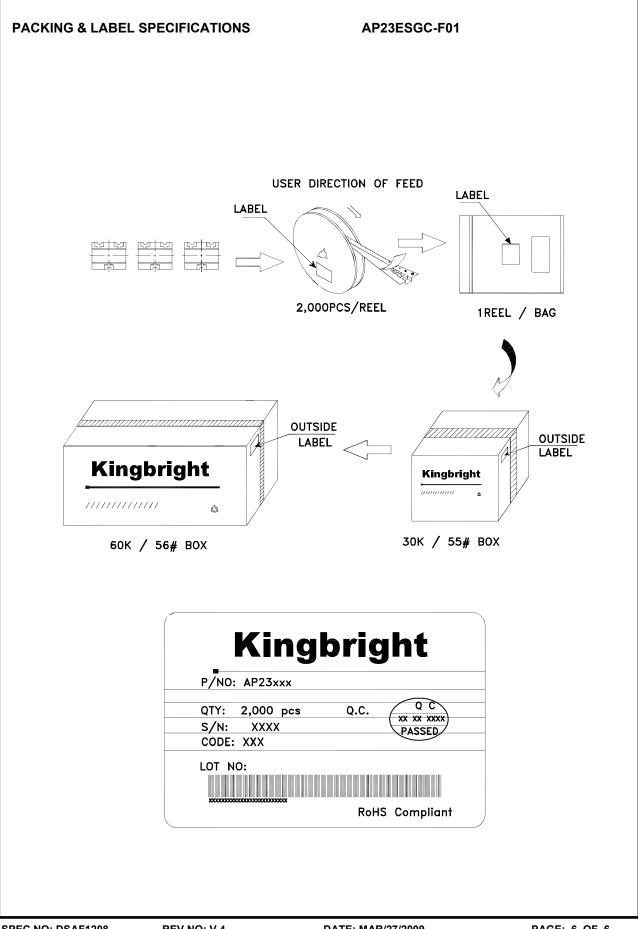


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