

2.7x3.5mm SURFACE MOUNT LED LAMP

Part Number: AA2735SRSGS

Super Bright Red Super Bright Green

Features

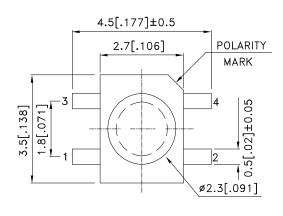
- 2.7mm X 3.5mm SMT LED, 1.5mm height only.
- Both chips can be controlled separately.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Ideal for backlighting.
- Package: 1000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

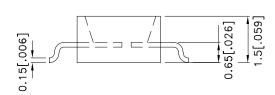
Description

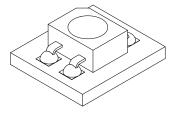
The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

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

Package Dimensions







Notes:

- All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- Lead spacing is measured where the leads emerge from the package.
- 4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
- 5. The device has a single mounting surface. The device must be mounted according to the specifications.

SPEC NO: DSAM0513 APPROVED: WYNEC REV NO: V.1 CHECKED: Allen Liu DATE: AUG/24/2011 DRAWN: D.M.Su **(**

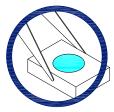
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Handling Precautions

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

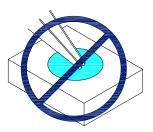
As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

1. Handle the component along the side surfaces by using forceps or appropriate tools.

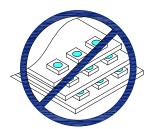


2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.





3. Do not stack together assembled PCBs containing exposed LEDs. Impact may scratch the silicone lens or damage the internal circuitry.



- 4.1. The inner diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks.
- 4.2. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 4.3. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



5. As silicone encapsulation is permeable to gases, some corrosive substances such as H_2S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

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Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
AA2735SRSGS	Super Bright Red (GaAlAs)	Water Clear	80	150	120°
	Super Bright Green (GaP)	vvalei Cledi	12	30	

Notes:

- 1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak 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	Super Bright Red Super Bright Green	660 565		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Red Super Bright Green	640 568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Red Super Bright Green	20 30		nm	IF=20mA
С	Capacitance	Super Bright Red Super Bright Green	45 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Red Super Bright Green	1.85 2.2	2.5 2.5	V	IF=20mA
lr	Reverse Current	Super Bright Red Super Bright Green		10 10	uA	VR = 5V

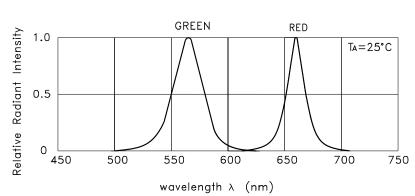
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Red	Super Bright Green	Units		
Power dissipation	75	62.5	mW		
DC Forward Current	30	25	mA		
Peak Forward Current [1]	155	140	mA		
Reverse Voltage		V			
Operating Temperature	-40°C To +85°C				
Storage Temperature	-40°C To +85°C				

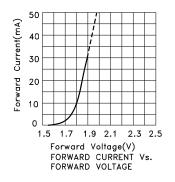
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

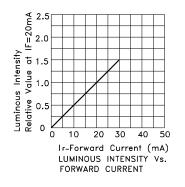
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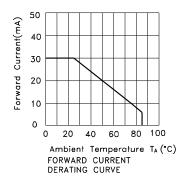


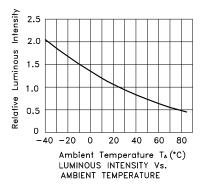
RELATIVE INTENSITY Vs. WAVELENGTH

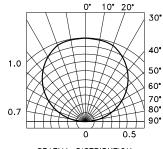
AA2735SRSGS Super Bright Red









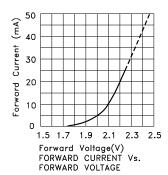


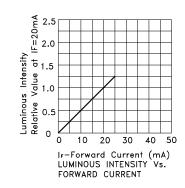
SPATIAL DISTRIBUTION

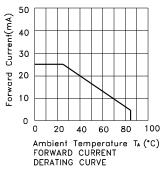
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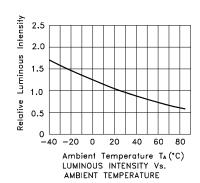
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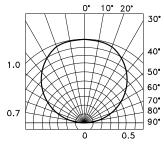
Super Bright Green











SPATIAL DISTRIBUTION

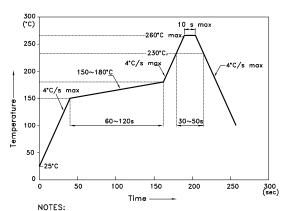
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AA2735SRSGS

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.



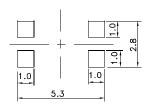
- NOTES:

 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
 - to high temperature.

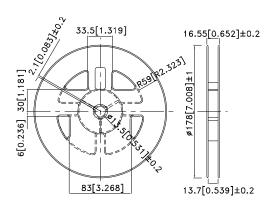
 3.Number of reflow process shall be 2 times or less.

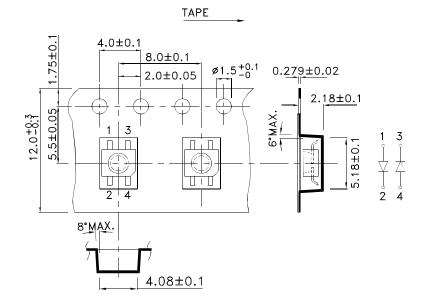
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)

Reel Dimension



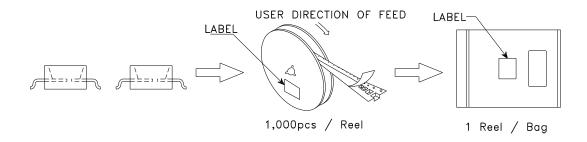


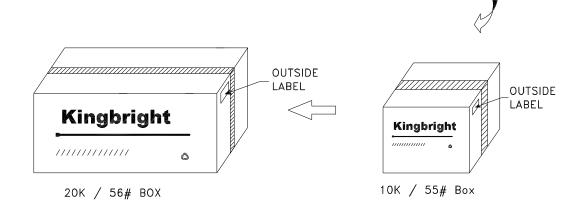
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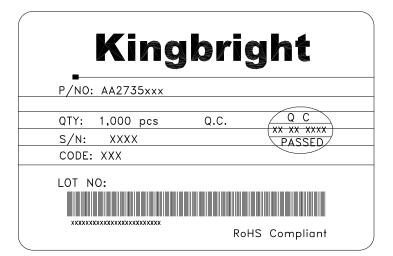
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PACKING & LABEL SPECIFICATIONS

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