

Part Number: KPBA-3010SRSGC-PRV

Super Bright Red
Super Bright Green

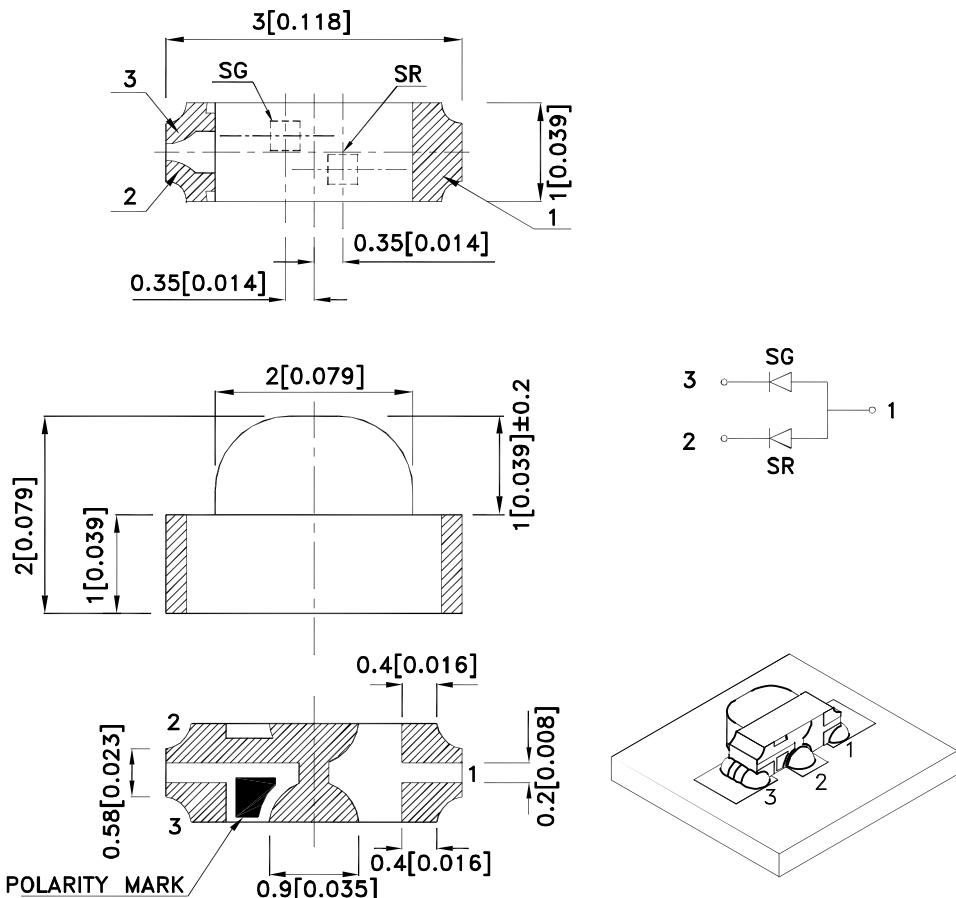
Features

- 3.0mmx1.0mm right angle SMT LED, 2.0mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000 pcs / reel.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- 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:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.15(0.006")$ unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



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Selection Guide

Part No.	Dice	Lens Type	I _v (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
KPBA-3010SRSGC-PRV	Super Bright Red (GaAlAs)	Water Clear	50	80	140°
			*20	*35	
	Super Bright Green (GaP)		8	15	
			*5	*15	

Notes:

1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

2. Luminous intensity/ luminous Flux: +/-15%.

*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.		Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Red Super Bright Green	660 565	*655 *565		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Super Bright Red Super Bright Green	640 568	*640 *568		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Red Super Bright Green	20 30			nm	I _F =20mA
C	Capacitance	Super Bright Red Super Bright Green	45 15			pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Super Bright Red Super Bright Green	1.85 2.2	2.5 2.5	V		I _F =20mA
I _R	Reverse Current	Super Bright Red Super Bright Green		10	uA		V _R =5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

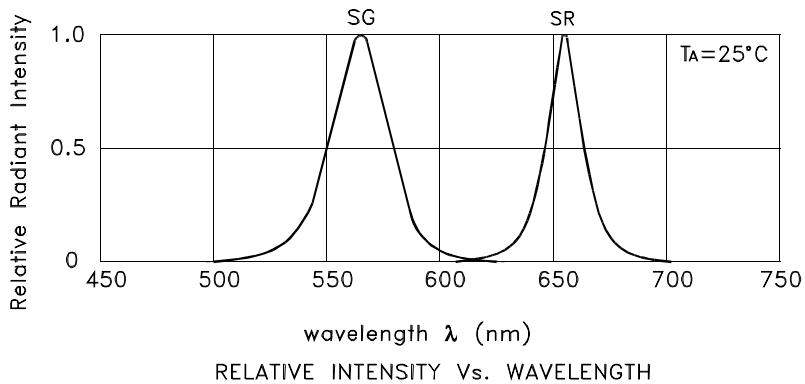
* Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

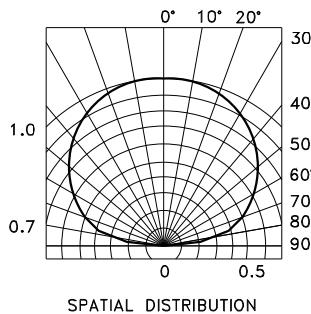
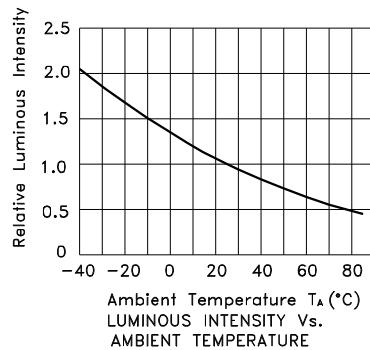
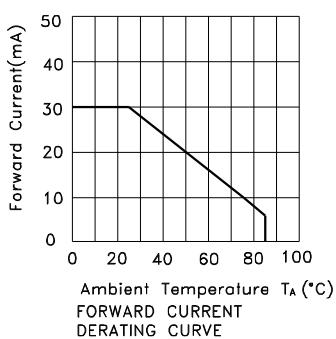
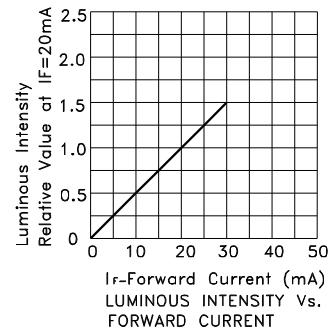
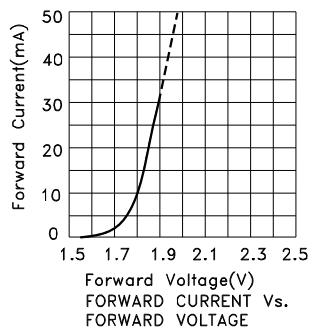
Parameter	Super Bright Red	Super Bright Green	Units
Power dissipation	75	62.5	mW
DC Forward Current	30	25	mA
Peak Forward Current [1]	155	140	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

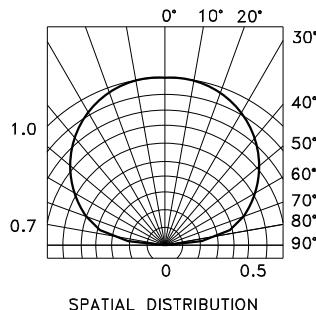
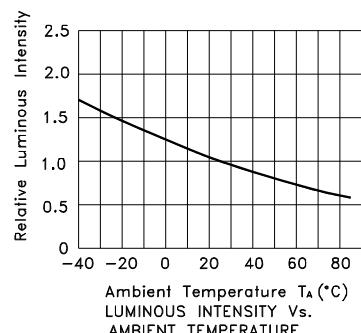
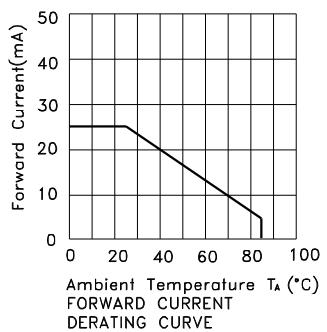
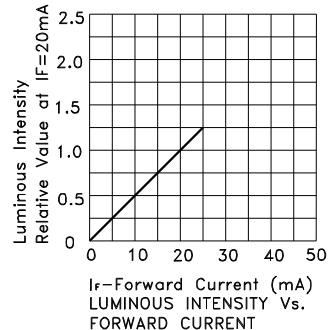
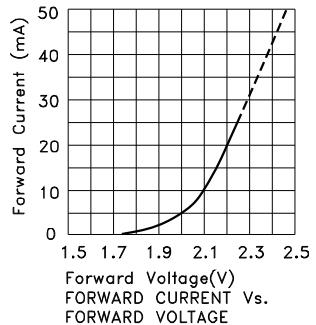
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



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Super Bright Red



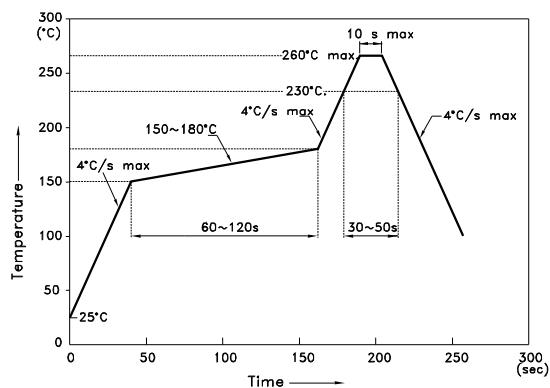
Super Bright Green



KPBA-3010SRSGC-PRV

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.

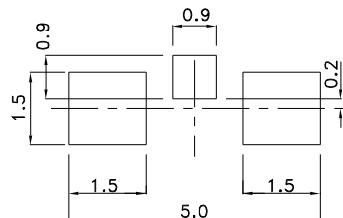
Reflow Soldering Profile For Lead-free SMT Process.



NOTES:

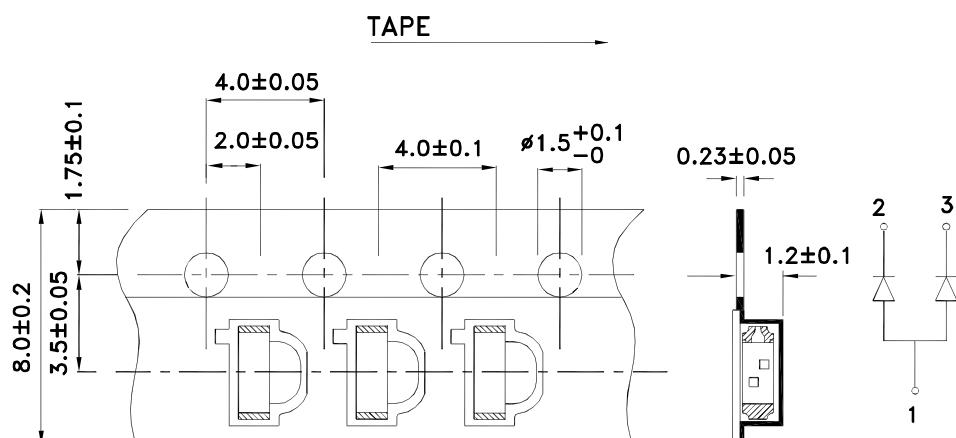
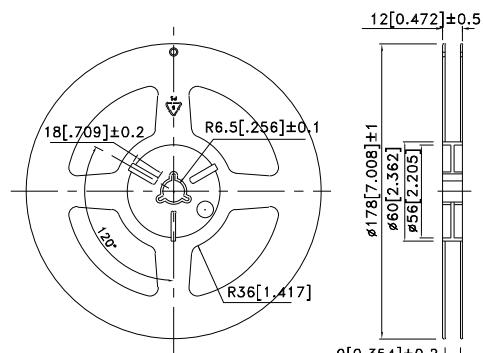
1. We recommend the reflow temperature $245^{\circ}\text{C} (+/- 5^{\circ}\text{C})$. The maximum soldering temperature should be limited to 260°C .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

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



Tape Dimensions (Units : mm)

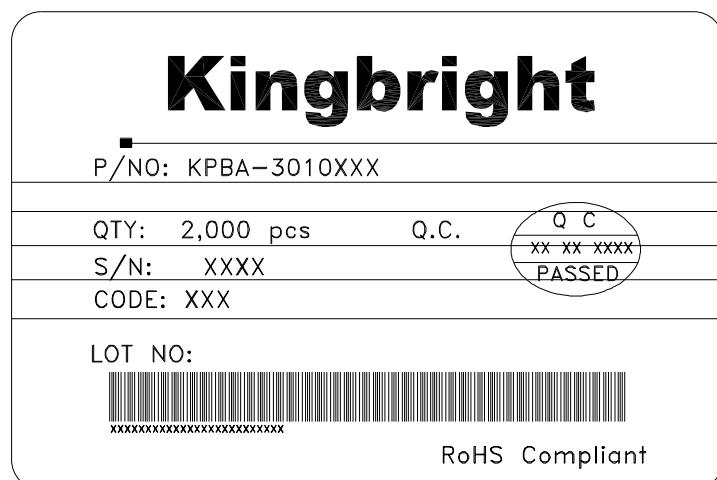
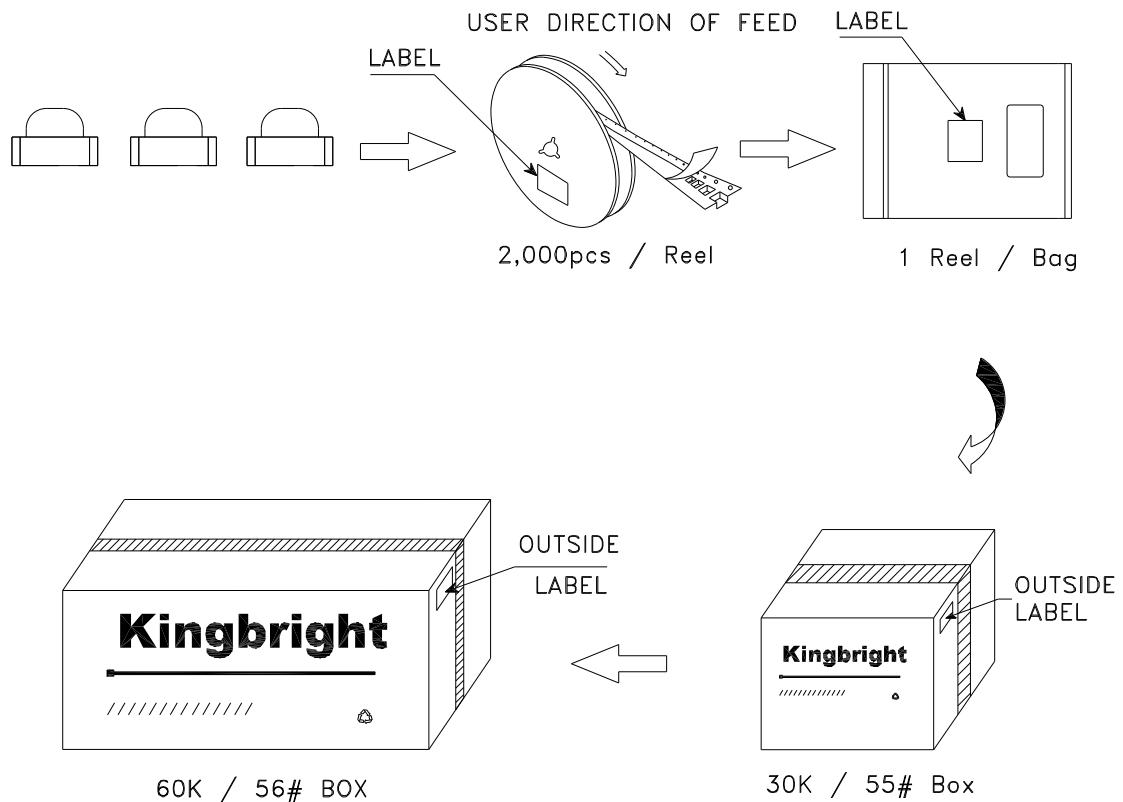
Reel Dimension



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PACKING & LABEL SPECIFICATIONS

KPBA-3010SRSGC-PRV



Mouser Electronics

Authorized Distributor

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