

Kingbright

3.0x2.5mm SURFACE MOUNT LED LAMP

APB3025SRQGCPRV-F01

SUPER BRIGHT RED

GREEN

Features

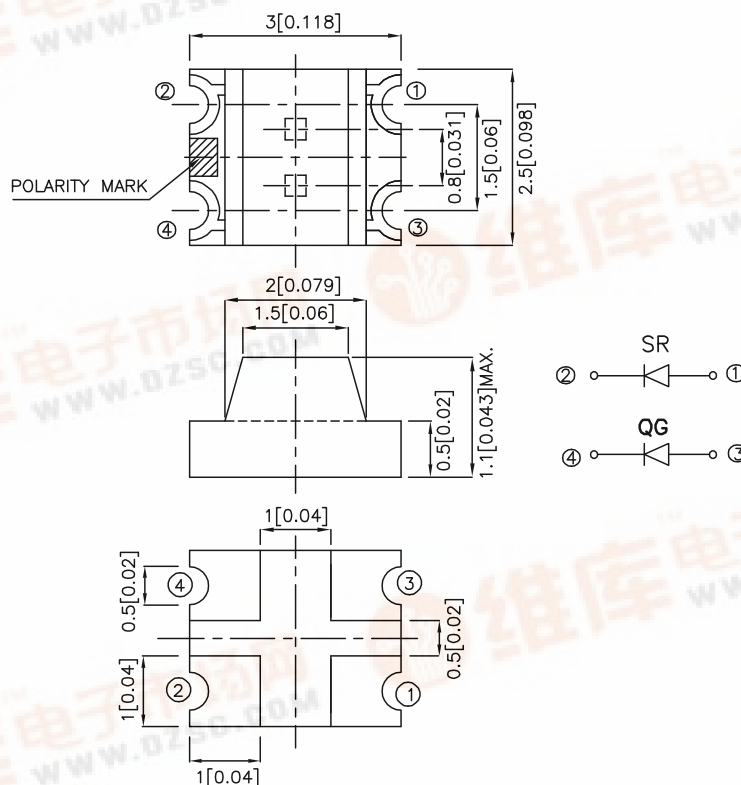
- 3.0mmx2.5mm SMT LED, 1.1mm THICKNESS.
- BI -COLOR,LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.

Description

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

The 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 $\pm 0.2(0.008)$ unless otherwise noted.
3. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2θ1/2
APB3025SRQGCPRV-F01	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	36	100	120°
	GREEN (GaP)		4	12	

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

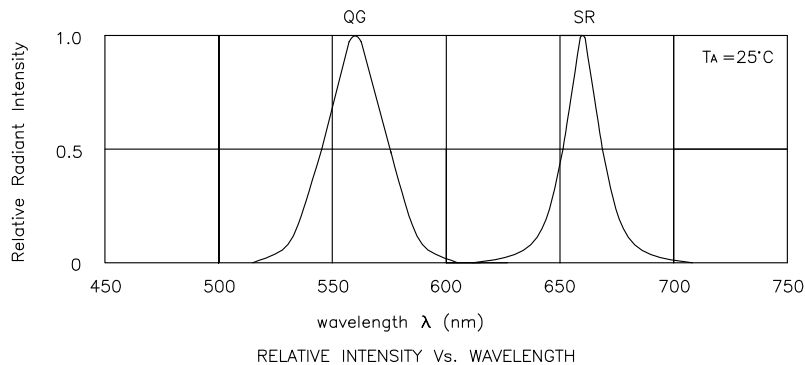
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red Green	660 560		nm	IF=20mA
λD	Dominant Wavelength	Super Bright Red Green	640 565		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Red Green	20 30		nm	IF=20mA
C	Capacitance	Super Bright Red Green	45 45		pF	VF=0V;f=1MHz
VF	Forward Voltage	Super Bright Red Green	1.85 2.15	2.5 2.5	V	IF=20mA
IR	Reverse Current	All		10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

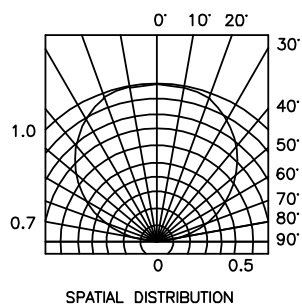
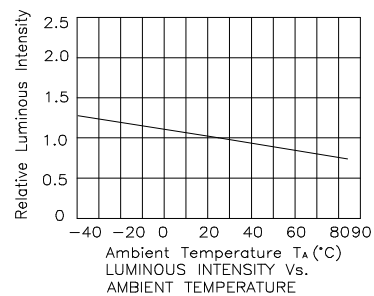
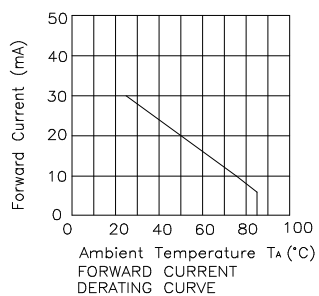
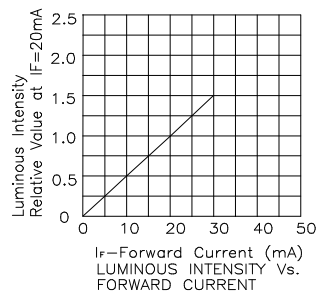
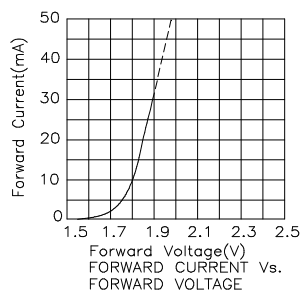
Parameter	Super Bright Red	Green	Units
Power dissipation	100	105	mW
DC Forward Current	30	25	mA
Peak Forward Current [1]	155	130	mA
Reverse Voltage	5		V
Operating / Storage Temperature	-40°C To +85°C		

Note:

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

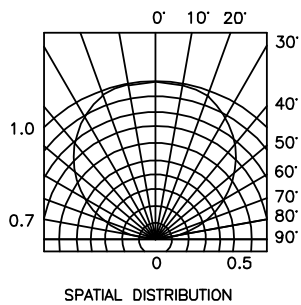
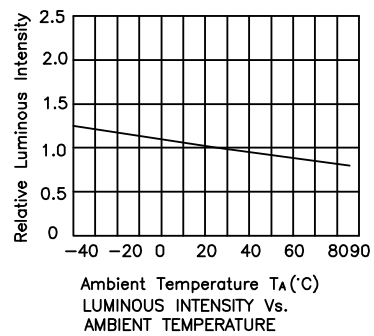
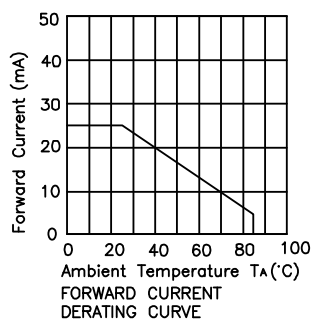
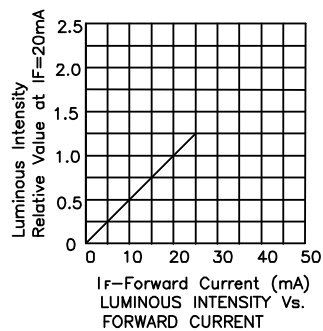
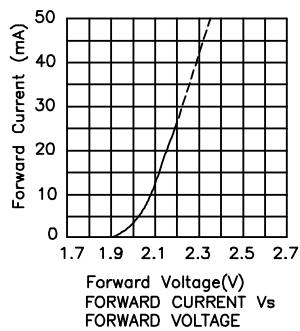


APB3025SRQGCPRV-F01 Super Bright Red



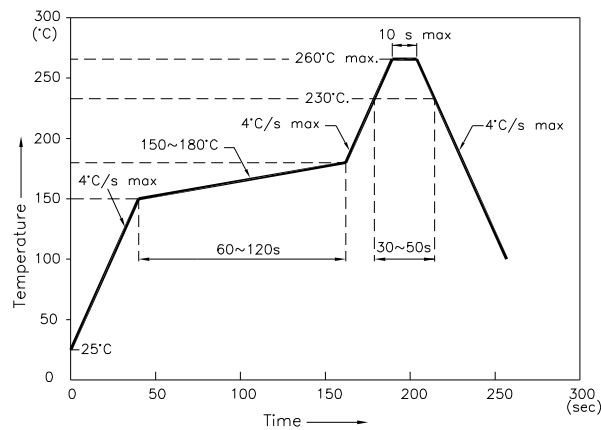
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Green



APB3025SRQGCPRV-F01

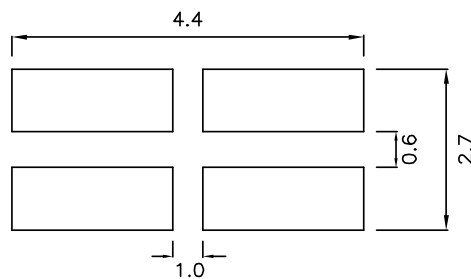
Reflow Soldering Profile For Lead-free SMT Process.



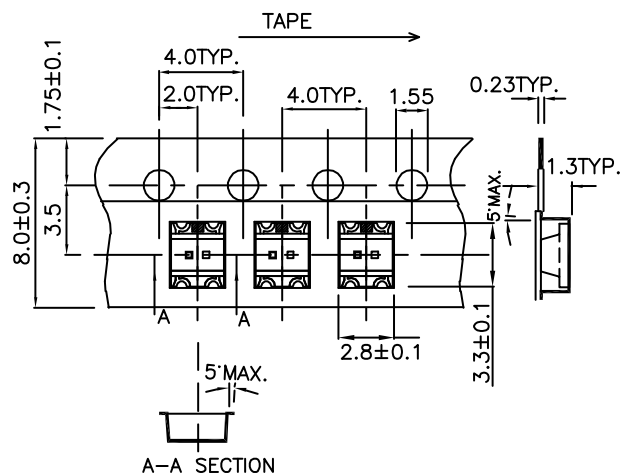
NOTES:

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)



Tape Specifications (Units : mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: $\pm 1\text{nm}$
2. Luminous Intensity: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.