

KPKB-3025ESGC

HIGH EFFICIENCY RED
SUPER BRIGHT GREEN

Features

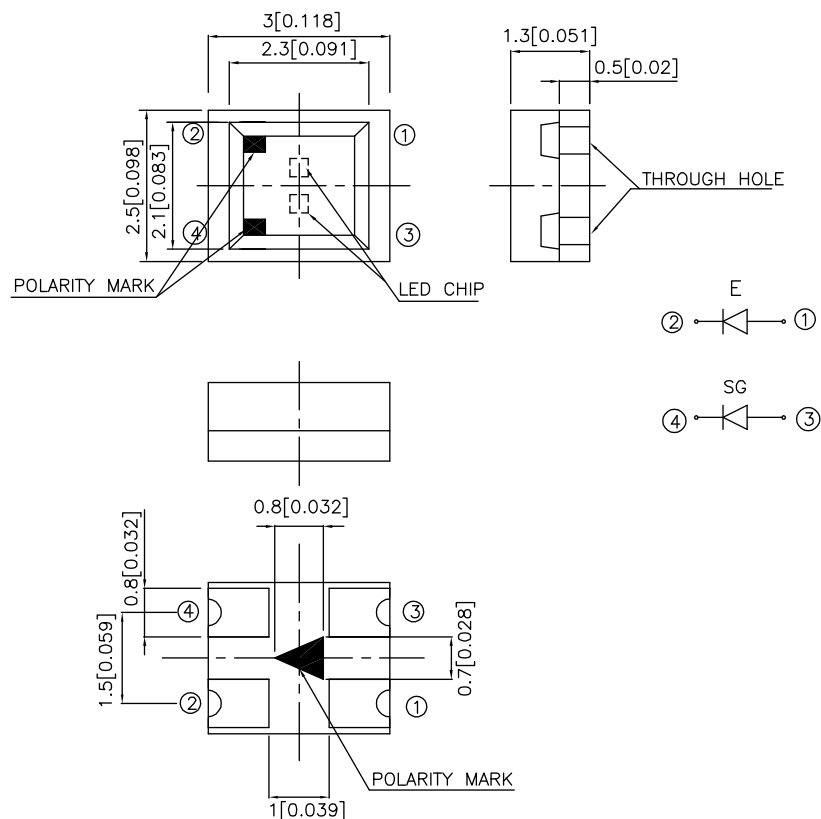
- 3.0mmx2.5mm SMT LED, 1.3mm THICKNESS.
- BI -COLOR, LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.

Description

The 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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2 (0.0079") 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.	2 θ 1/2
KPKB-3025ESGC	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	10	20	120°
	SUPER BRIGHT GREEN (GaP)		10	20	

Note:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

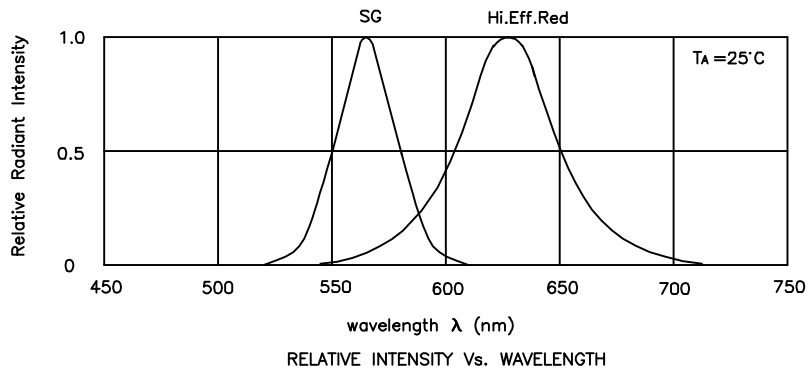
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Green	627 565		nm	IF=20mA
λ_D	Dominant Wavelength	High Efficiency Red Super Bright Green	625 568		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Super Bright Green	45 30		nm	IF=20mA
C	Capacitance	High Efficiency Red Super Bright Green	15 15		pF	VF=0V;f=1MHz
VF	Forward Voltage	High Efficiency Red Super Bright Green	2.0 2.2	2.5 2.5	V	IF=20mA
IR	Reverse Current	High Efficiency Red Super Bright Green		10 10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

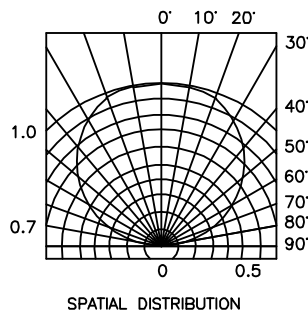
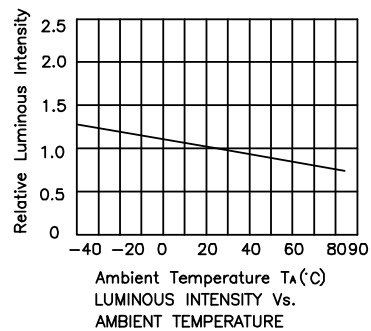
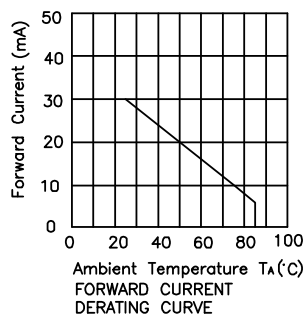
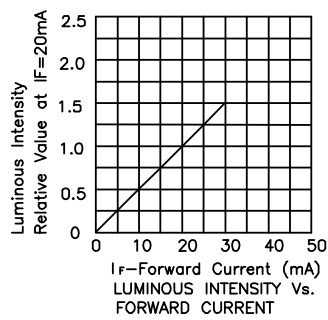
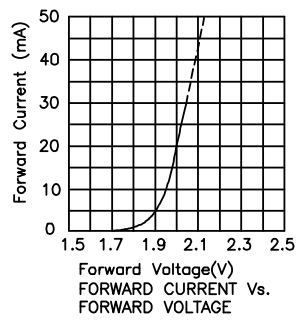
Parameter	High Efficiency Red	Super Bright Green	Units
Power dissipation	105	105	mW
DC Forward Current	30	25	mA
Peak Forward Current [1]	160	140	mA
Reverse Voltage	5		V
Operating/Storage Temperature	-40°C To +85°C		

Note:

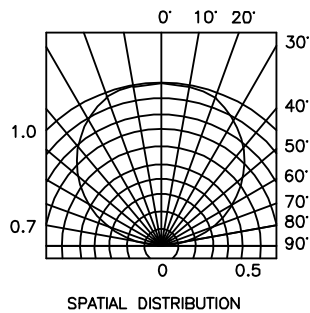
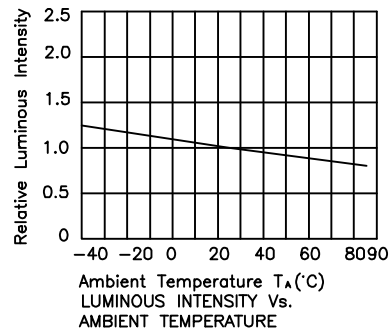
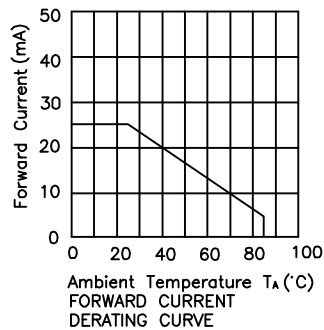
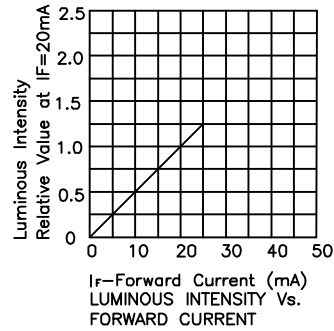
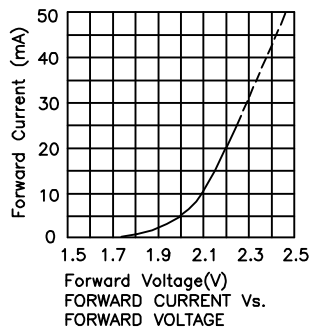
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



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High Efficiency Red

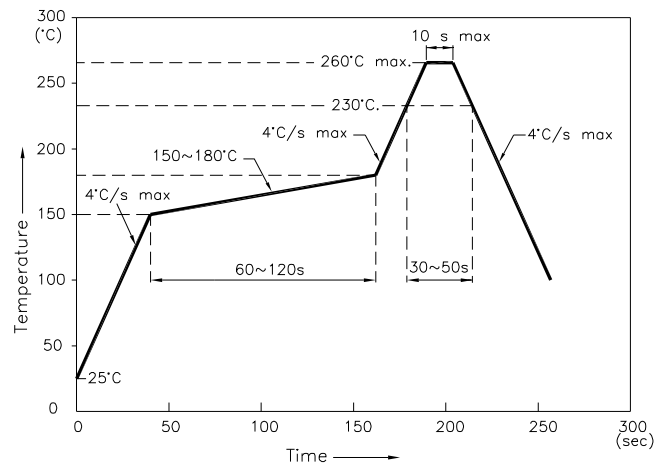


Super Bright Green



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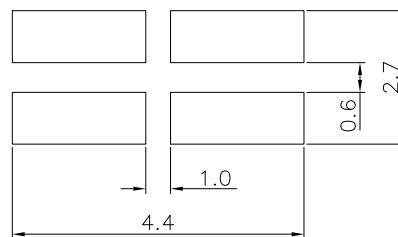
Reflow Soldering Profile For Lead-free SMT Process.



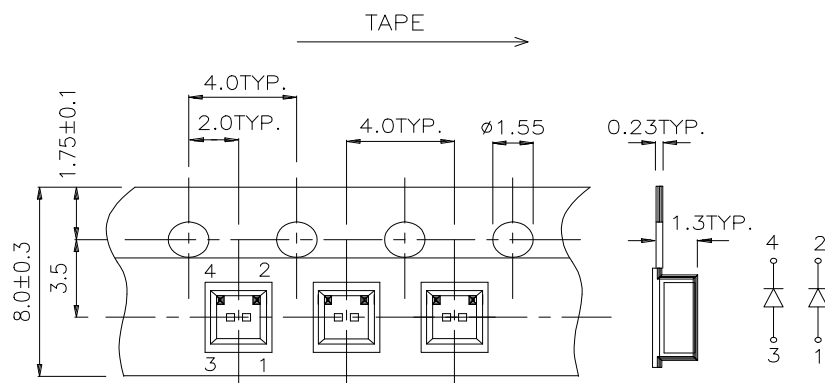
NOTES:

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/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.