

3.2x2.4mm SMD CHIP LED LAMP

KPBD-3224ESGC

HIGH EFFICIENCY RED SUPER BRIGHT GREEN

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Features

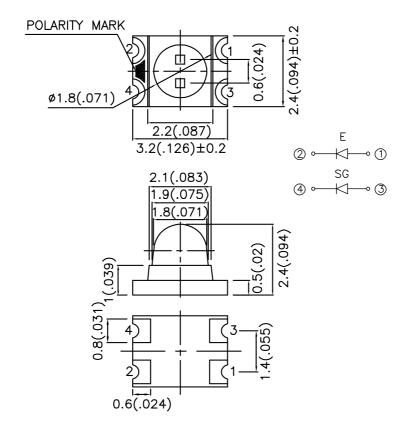
- •3.2x2.4mm SMT LED, 2.4mm THICKNESS.
- •LOW POWER CONSUMPTION.
- •IDEAL FOR BACKLIGHT AND INDICATOR.
- •VARIOUS COLORS AND LENS TYPES AVAILABLE.
- •PACKAGE: 1500PCS / REEL.
- •RoHS COMPLIANT.

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 $\pm 0.1(0.004")$ unless otherwise noted.
- 3. Specifications are subject to change without notice.

SPEC NO: DSAC2535 REV NO: V.5 DATE: JUL/20/2005
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: W.J.ZHU

Selection Guide

	Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
				Min.	Тур.	2 θ 1/2
k	KPBD-3224ESGC	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	18	60	20°
		SUPER BRIGHT GREEN (GaP)	WATER CLEAR	10	40	

Note:

Electrical / Optical Characteristics at Ta=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Super Bright Green	627 565		nm	IF=20mA
λD	Dominant Wavelength	High Efficiency Red Super Bright Green	625 568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red Super Bright Green	45 30		nm	IF=20mA
С	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
lR	Reverse Current	High Efficiency Red Super Bright Green		10 10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

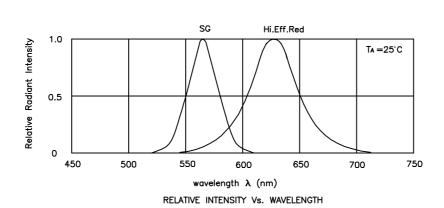
Parameter	High Efficiency Red	Super Bright Green	Units	
Power dissipation	105	105	mW	
DC Forward Current	30	25	mA	
Peak Forward Current [1]	160	140	mA	
Reverse Voltage	5		V	
Operating/Storage Temperature	perating/Storage Temperature -40°C To +85°C			

Note:

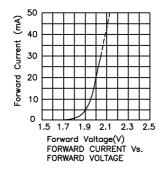
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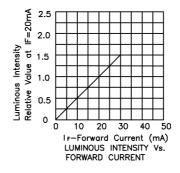
^{1.} θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

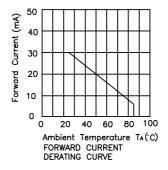
^{1. 1/10} Duty Cycle, 0.1ms Pulse Width.

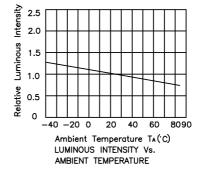


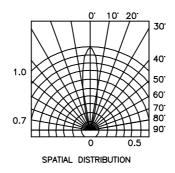
KPBD-3224ESGC High Efficiency Red





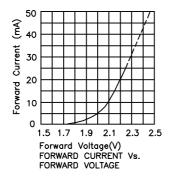


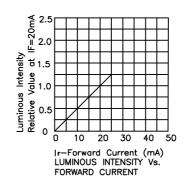


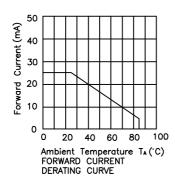


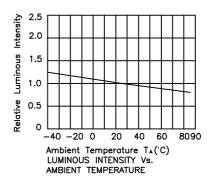
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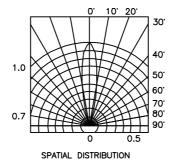
Super Bright Green











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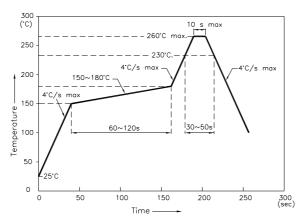
DRAWN: W.J.ZHU

CHECKED: Allen Liu

APPROVED: J. Lu

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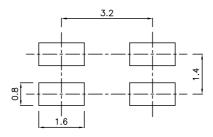
Reflow Soldering Profile For Lead-free SMT Process.



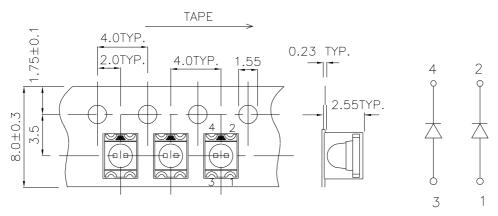
- NOTES:

 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)



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: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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