

8.89mmx8.89mm LED LIGHT BAR

Part Number: KB2655EW High Efficiency Red

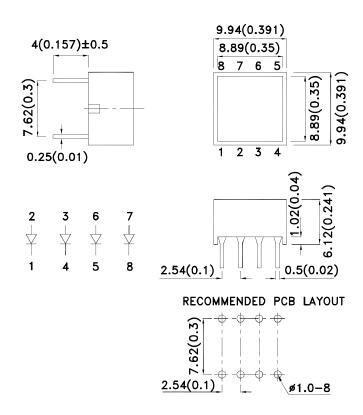
Features

- Uniform light emitting area.
- Low current operation.
- Easily mounted on P.C. boards.
- Flush mountable.
- Excellent on/off contrast.
- Can be used with panels and legend mounts.
- RoHS compliant.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

Package Dimensions& Internal Circuit Diagram



Notes

1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.

2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

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 APPROVED: WYNEC
 CHECKED: Joe Lee
 DRAWN: J.Yu
 ERP: 1334000134

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [1] @ 20mA	
		71	Min.	Тур.
KB2655EW	High Efficiency Red (GaAsP/GaP)	White Diffused	12	52

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA
λD [1]	Dominant Wavelength	High Efficiency Red	625		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA
С	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	High Efficiency Red	2.0	2.5	V	IF=20mA
lr	Reverse Current	High Efficiency Red		10	uA	VR=5V

Absolute Maximum Ratings at TA=25°C

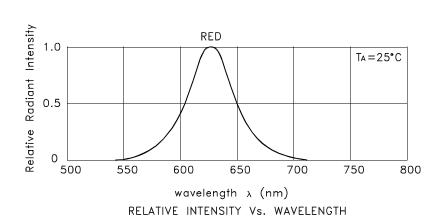
Parameter	High Efficiency Red	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	160	mA	
Reverse Voltage	5	V	
perating / Storage Temperature -40°C To +85°C			
Lead Solder Temperature[2]	ture[2] 260°C For 3-5 Seconds		

Notes: 1. 1/10 Duty Cycle, 0.1ms Pulse Width. 2. 2mm below package base.

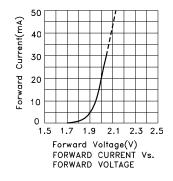
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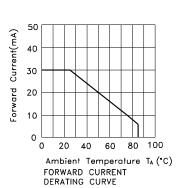
^{1.} Luminous intensity/ luminous Flux: +/-15%.

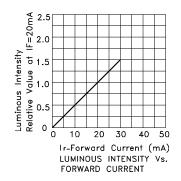
^{1.}Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

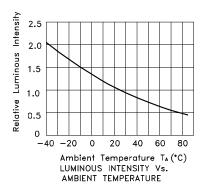


High Efficiency Red KB2655EW







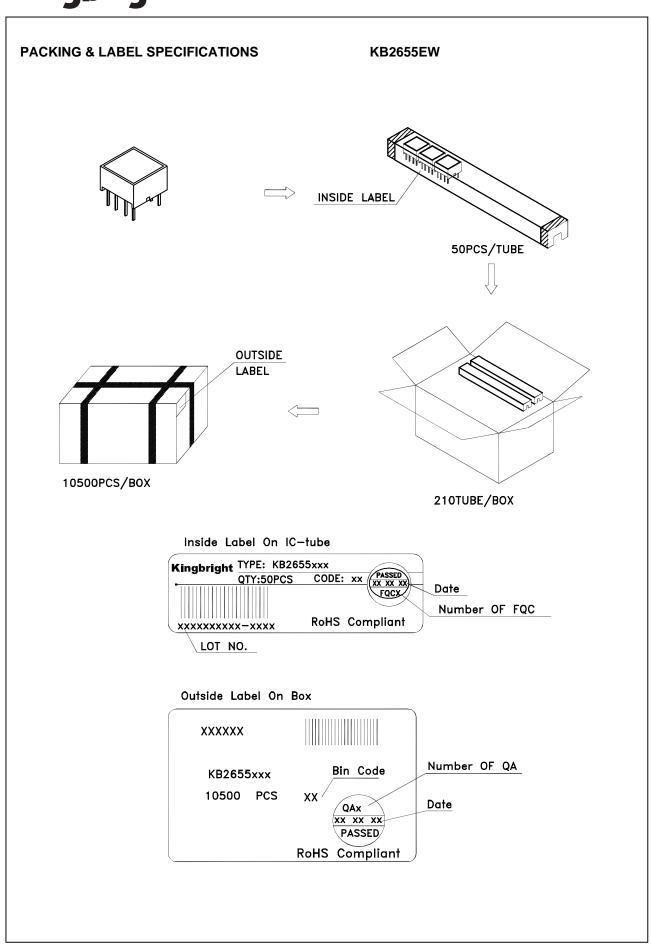


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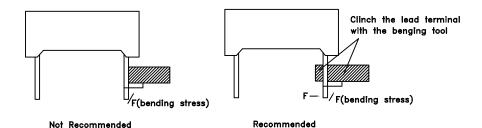


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THROUGH HOLE DISPLAY MOUNTING METHOD

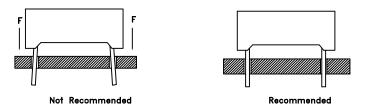
Lead Forming

Do not bend the component leads by hand without proper tools. The leads should be bent by clinching the upper part of the lead firmly such that the bending force is not exerted on the plastic body.



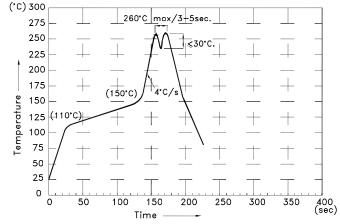
Installation

- 1. The installation process should not apply stress to the lead terminals.
- 2. When inserting for assembly, ensure the terminal pitch matches the substrate board's hole pitch to prevent spreading or pinching the lead terminals.



DISPLAY SOLDERING CONDITIONS

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

- 1. Recommend the wave temperature 245°C \sim 260°C. The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85°C.
- 3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.During wave soldering , the PCB top-surface temperature should be kept below 105°C

5.No more than once.

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Soldering General Notes:

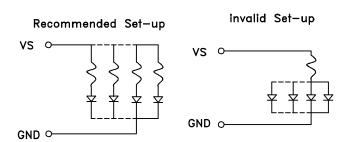
- a. Through—hole displays are incompatible with reflow soldering.
- b. If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with Kingbright for compatibility.

CLEANING

- 1.Mild "no-clean" fluxes are recommended for use in soldering.
- 2. If cleaning is required, Kingbright recommends to wash components with water only. Do not use harsh organic solvents for cleaning, because they may damage the plastic parts .And the devices should not be washed for more than one minute.

CIRCUIT DESIGN NOTES

- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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