

# Kingbright®

## LED LIGHT BARS

KB-A100SRW,-B100SRW,-C100SRW,-D100SRW,-E100SRW,  
 -F100SRW,-G100SRW,-H100SRW  
 KB-2300EW,-2350EW,-2655EW,-2600EW,-2620EW,-2635EW,-2670EW  
 -2685EW,-2500SGD,-2550SGD,-2855SGD,-2800SGD,-2820SGD,  
 -2835SGD-2870SGD,-2885SGD,-2400YW,-2450YW,-2755YW,  
 -2700YW,-2720YW,-2735YW,-2770YW,-2785YW

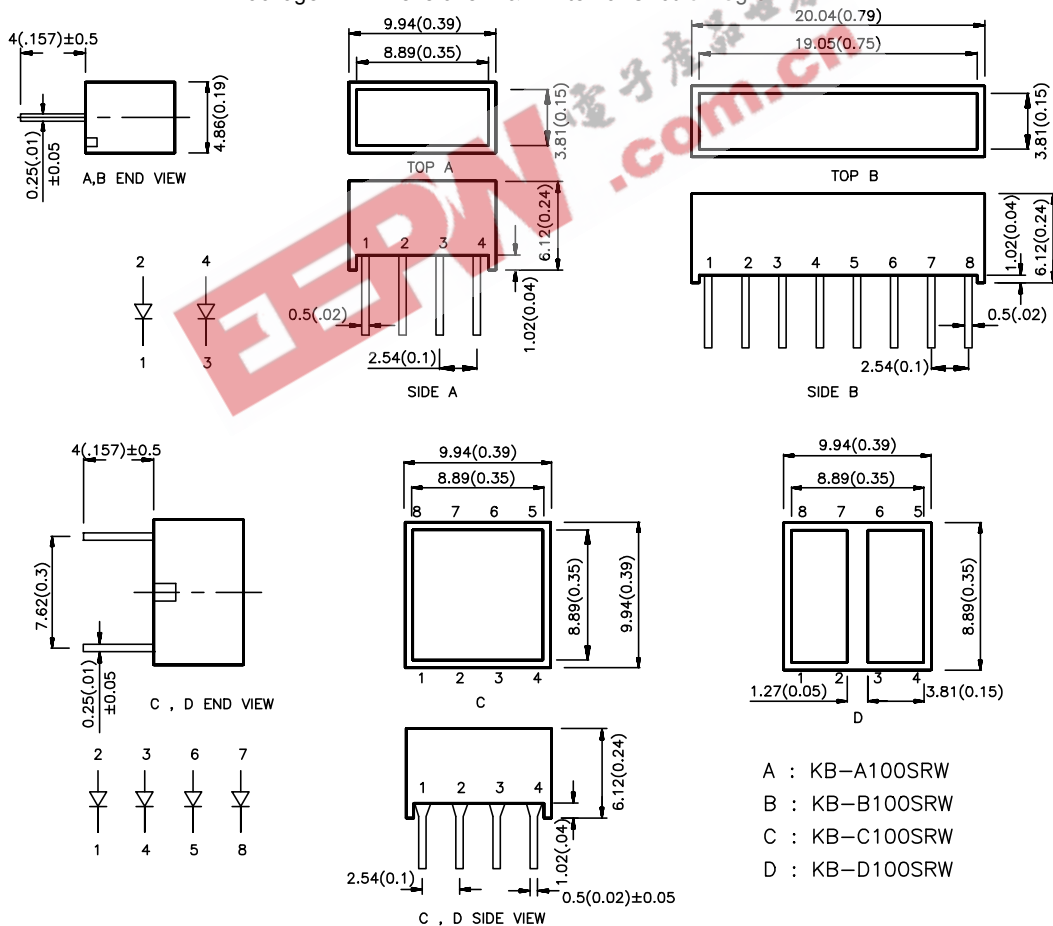
### Features

- 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.
- CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.

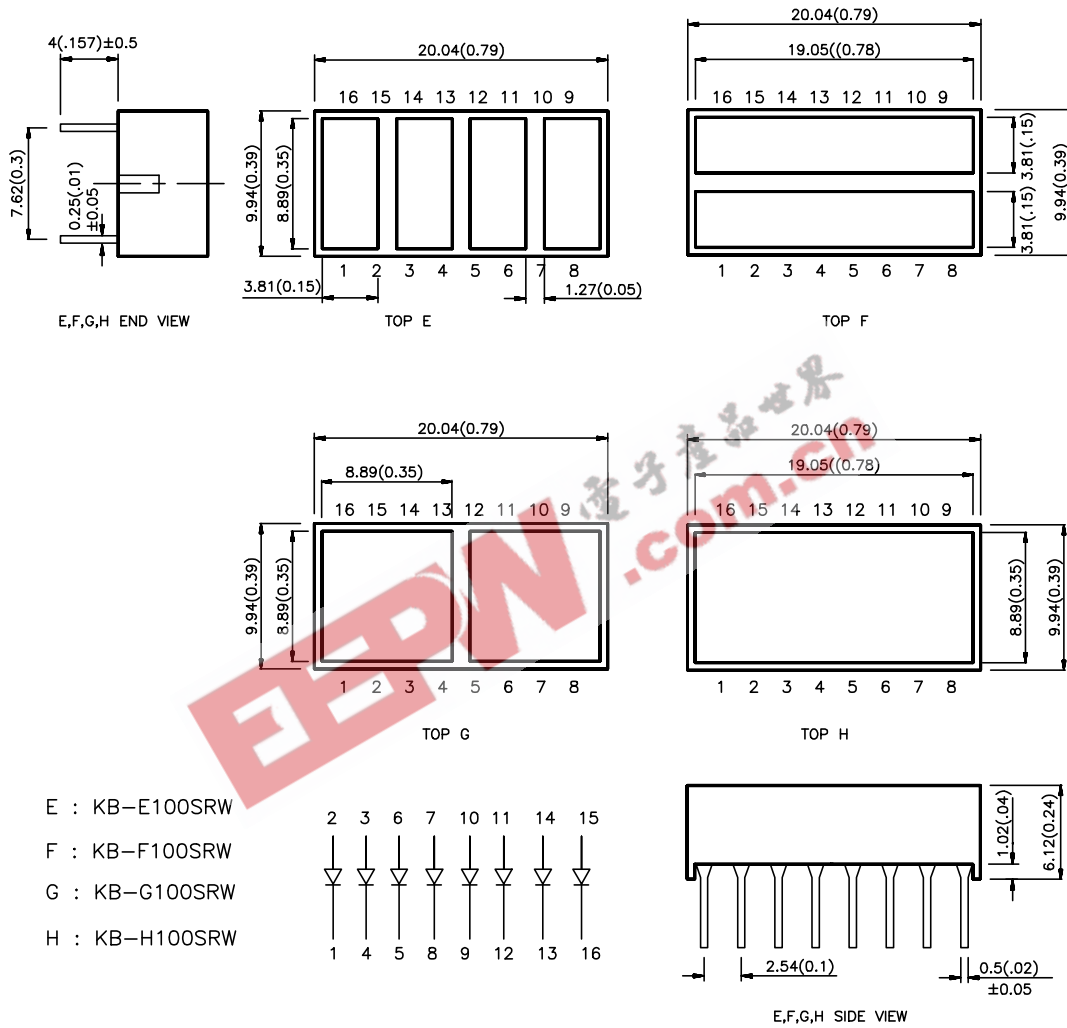
### Description

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.  
 The Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.  
 The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.  
 The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

### Package Dimensions & Internal Circuit Diagram






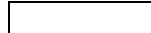




Package Dimensions & Internal Circuit Diagram



Notes :

1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
2. Specifications are subjected to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Size of Light Emitting Areas
			Min.	Typ.	Package Outline
KB-2300EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	10	25	8.89mmx3.81mm 
KB-A100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	40	75	
KB-2400YW	YELLOW (GaAsP/GaP)	White Diffused	8	18	
KB-2500SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	10	25	19.05mmx3.81mm 
KB-2350EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	50	
KB-B100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	
KB-2450YW	YELLOW (GaAsP/GaP)	White Diffused	15	38	8.89mmx8.89mm 
KB-2550SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2655EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	45	
KB-C100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	8.89mmx3.81mm 
KB-2755YW	YELLOW (GaAsP/GaP)	White Diffused	15	35	
KB-2855SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2600EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	10	25	8.89mmx3.81mm 
KB-D100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	45	75	
KB-2700YW	YELLOW (GaAsP/GaP)	White Diffused	8	18	
KB-2800SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	10	25	8.89mmx3.81mm 
KB-2620EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	10	25	
KB-E100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	40	75	
KB-2720YW	YELLOW (GaAsP/GaP)	White Diffused	8	18	3.81mmx19.05mm 
KB-2820SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	10	25	
KB-2635EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	50	
KB-F100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	8.89mmx8.89mm 
KB-2735YW	YELLOW (GaAsP/GaP)	White Diffused	15	38	
KB-2835SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2670EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	45	8.89mmx3.81mm 
KB-G100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	
KB-2770YW	YELLOW (GaAsP/GaP)	White Diffused	15	35	
KB-2870SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	8.89mmx19.05mm 
KB-2685EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	25	80	
KB-H100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	40	150	
KB-2785YW	YELLOW (GaAsP/GaP)	White Diffused	25	70	8.89mmx3.81mm 
KB-2885SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	30	100	

### Electrical Maximum Ratings at T<sub>A</sub>=25°C

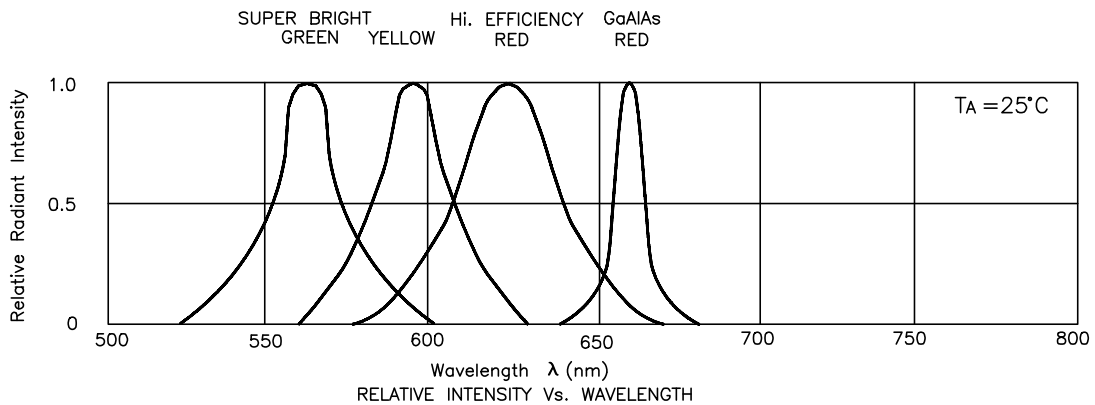
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	High Efficiency Red Super Bright Green Yellow Super Bright Red	625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Super Bright Green Yellow Super Bright Red	45 30 35 20		nm	IF=20mA
C	Capacitance	High Efficiency Red Super Bright Green Yellow Super Bright Red	12 45 10 95		pF	VR=0V;f=1MHz
V <sub>F</sub>	Forward Voltage	High Efficiency Red Super Bright Green Yellow Super Bright Red	2.0 2.2 2.1 1.85	2.5 2.5 2.5 2.5	V	IF=20mA
I <sub>R</sub>	Reverse Current	All	10		μA	VR = 5V

### Absolute Maximum Ratings at T<sub>A</sub>=25°C

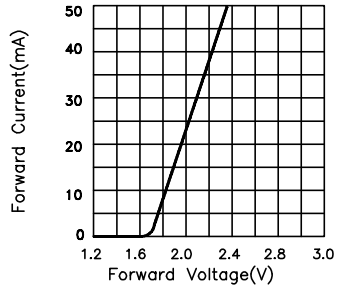
Parameter	High Efficiency Red	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	105	105	100	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	150	150	150	150	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Soldering Temperature [2]	260°C For 5 Seconds				

Notes:

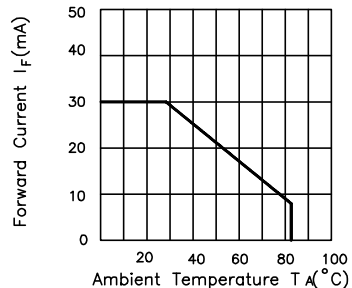
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



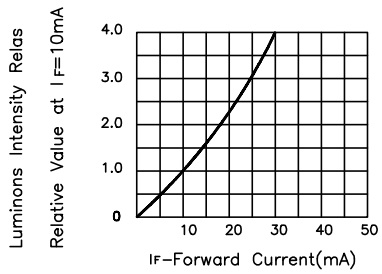
### High Efficiency Red



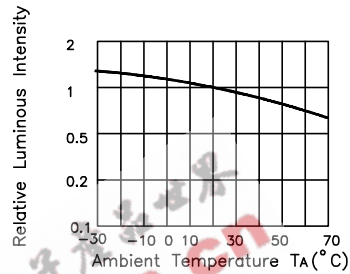
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

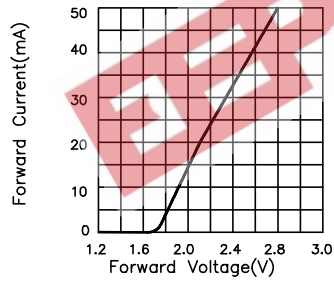


LUMINOUS INTENSITY Vs. FORWARD CURRENT

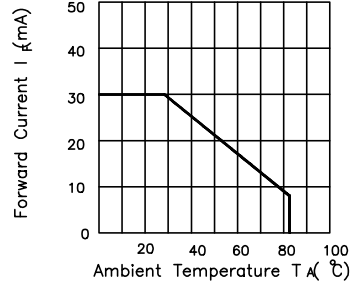


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

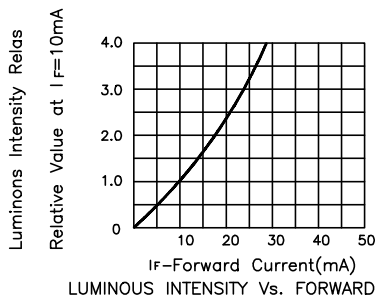
### Yellow



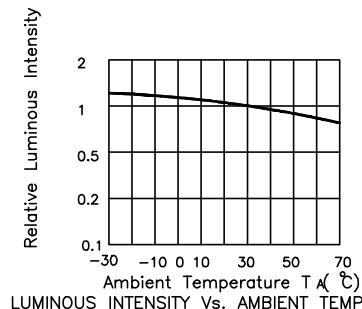
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

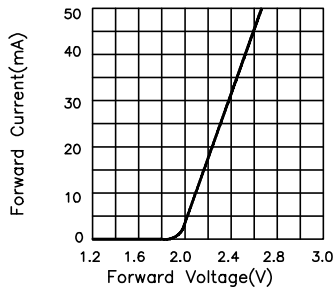


LUMINOUS INTENSITY Vs. FORWARD CURRENT

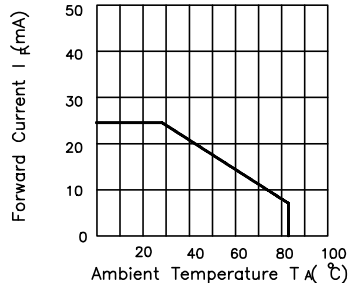


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

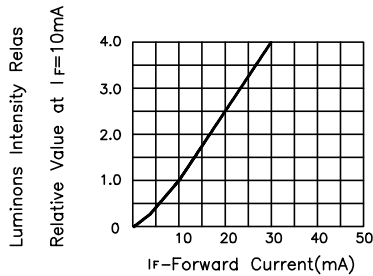
## Super Bright Green



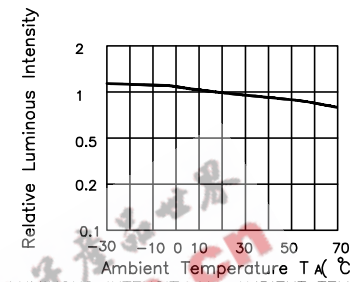
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

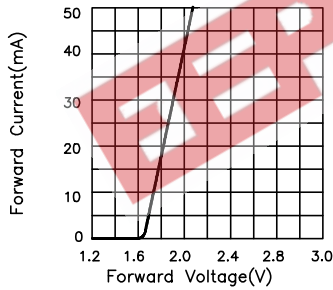


LUMINOUS INTENSITY Vs. FORWARD CURRENT

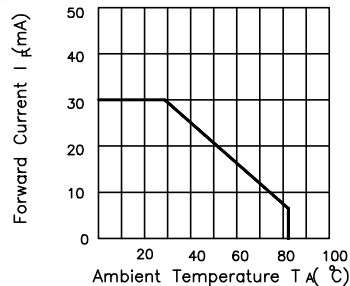


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

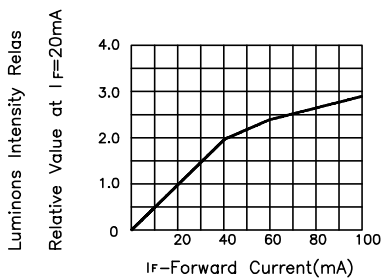
## Super Bright Red



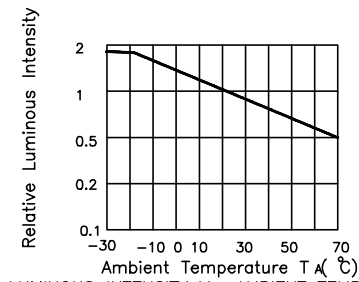
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE