

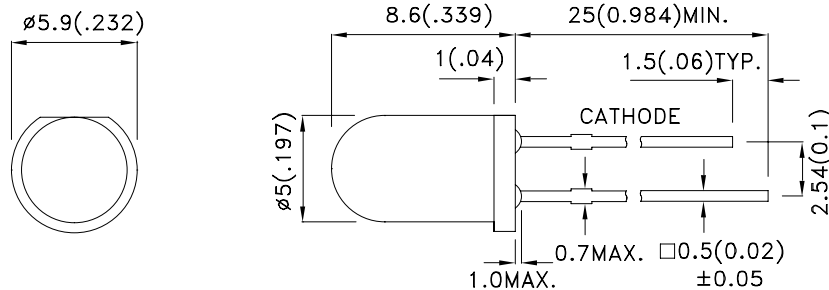
### Features

- T-1 3/4 PACKAGE.
- WITH BUILT BLINKING IC.
- OPERATION VOLTAGE FROM 3.5V TO 14V.
- BLINKING FREQUENCY FROM 3.0Hz TO 1.5Hz.
- RoHs COMPLIANT.

### Description

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

### Package Dimensions



Notes:

1. All Dimensions are millimeters (inches).
2. Tolerance is  $\pm 0.25 (0.01)$  unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.



## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) V= 9V		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP56BSRD/B	Super Bright Red (GaAlAs)	RED DIFFUSED	110	200	60°

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

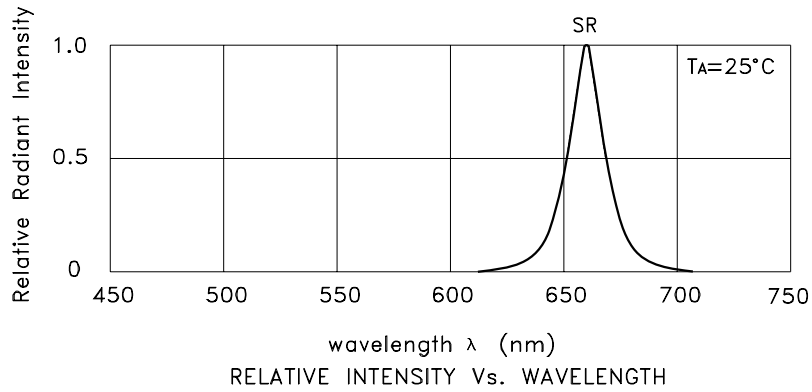
Symbol	Parameter	Device	Min.	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red		660		nm	
λD	Dominant Wavelength	Super Bright Red		640		nm	
Δλ1/2	Spectral Line Half-width	Super Bright Red		20		nm	
IF	Forward Current	Super Bright Red	8	22		mA	Min:VF=3.5V Typ:VF=5V
ISON	Supply Current	Super Bright Red		8		mA	VF=3.5V
ISON	Supply Current	Super Bright Red		44		mA	VF=14V
f	Blink Frequency	Super Bright Red	1.5		3	Hz	VF=3.5V~14V

## Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Red	Units
Power dissipation	310	mW
Forward Voltage	14	V
Reverse Voltage	0.5	V
Operating Temperature	-40°C To +70°C	
Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [1]	260°C For 3 Seconds	
Lead Solder Temperature [2]	260°C For 5 Seconds	

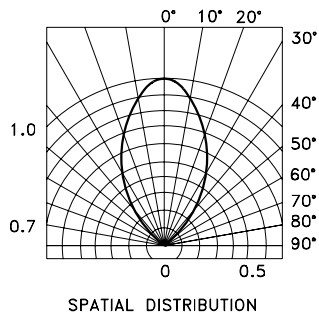
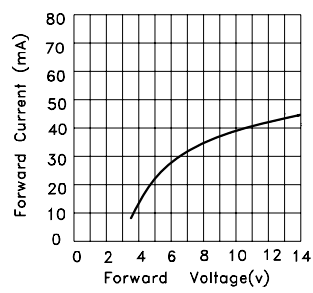
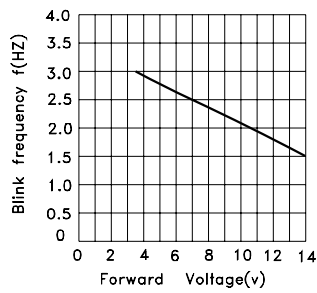
Notes:

- 2mm below package base.
- 5mm below package base.



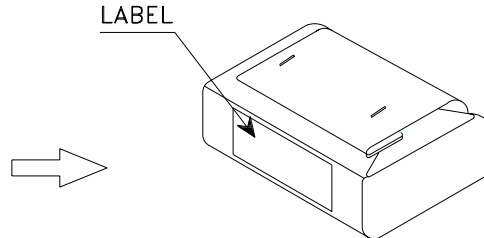
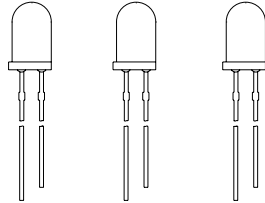
## Super Bright Red

## WP56BSRD/B



**PACKING & LABEL SPECIFICATIONS**

**WP56BSRD/B**

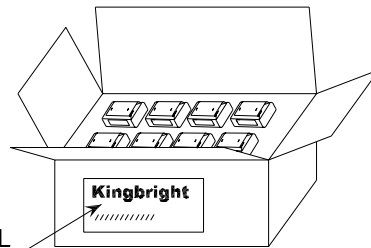


500PCS / BAG



32K / 9# BOX

OUTSIDE LABEL



16K / 5# BOX

OUTSIDE LABEL

<h1>Kingbright</h1>	
Q.C.	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">                 QC                  XX XX XX                  PASSED             </div>
TYPE NO : WP56Bxxx	
QUANTITY : 500 pcs	
S/N : XX	CODE: XX
LOT NO :	
RoHS Compliant	

## LED MOUNTING METHOD

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.

(Fig. 1)



Fig.1

”○” Correct mounting method ”×” Incorrect mounting method

Note 1-2 : Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits.

2. When soldering wire to the LED, use individual heat-shrink tubing to insulate the exposed leads to prevent accidental contact short-circuit.

(Fig. 2)

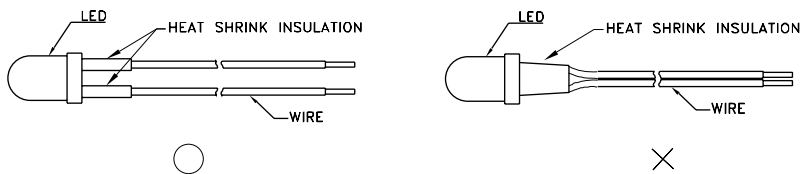


Fig. 2

3. Use stand-offs (Fig. 3) or spacers (Fig. 4) to securely position the LED above the PCB.



Fig. 3



Fig. 4

## LEAD FORMING PROCEDURES

1. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend. (Fig. 5 and 6)



Fig. 5



Fig. 6

2. Lead forming or bending must be performed before soldering, never during or after Soldering.
3. Do not stress the LED lens during lead-forming in order to fractures in the lens epoxy and damage the internal structures.
4. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB. (Fig. 7)
5. Do not bend the leads more than twice. (Fig. 8)



Fig. 7



Fig. 8

6. After soldering or other high-temperature assembly, allow the LED to cool down to 50°C before applying outside force (Fig. 9). In general, avoid placing excess force on the LED to avoid damage. For any questions please consult with Kingbright representative for proper handling procedures.



Fig. 9

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9