

|           |                     |
|-----------|---------------------|
| KB2685EW  | HIGH EFFICIENCY RED |
| KBH100SRW | SUPER BRIGHT RED    |
| KB2785YW  | YELLOW              |
| KB2885SGD | SUPER BRIGHT GREEN  |

### 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

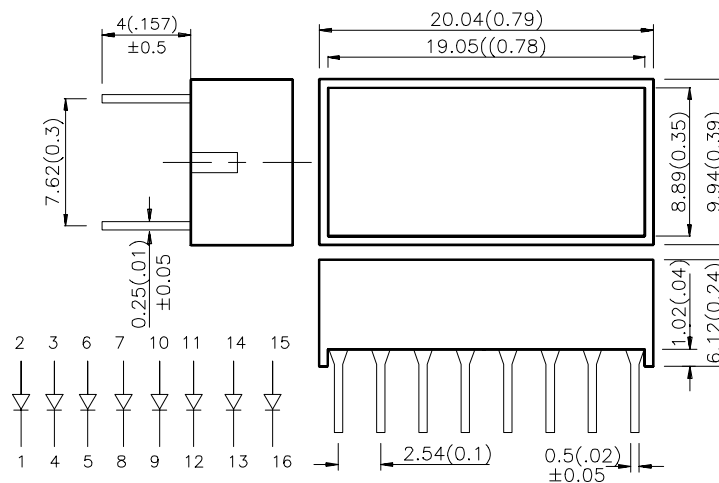
The High Efficiency source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions & Internal Circuit Diagram



#### Notes:

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

## Selection Guide

| Part No.  | Dice                            | Lens Type      | Iv (mcd)<br>@ 20 mA |      |
|-----------|---------------------------------|----------------|---------------------|------|
|           |                                 |                | Min.                | Typ. |
| KB2685EW  | HIGH EFFICIENCY RED (GaAsP/GaP) | White Diffused | 20                  | 60   |
| KBH100SRW | SUPER BRIGHT RED (GaAlAs)       | White Diffused | 50                  | 200  |
| KB2785YW  | YELLOW (GaAsP/GaP)              | White Diffused | 12                  | 50   |
| KB2885SGD | SUPER BRIGHT GREEN (GaP)        | Green Diffused | 60                  | 200  |

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

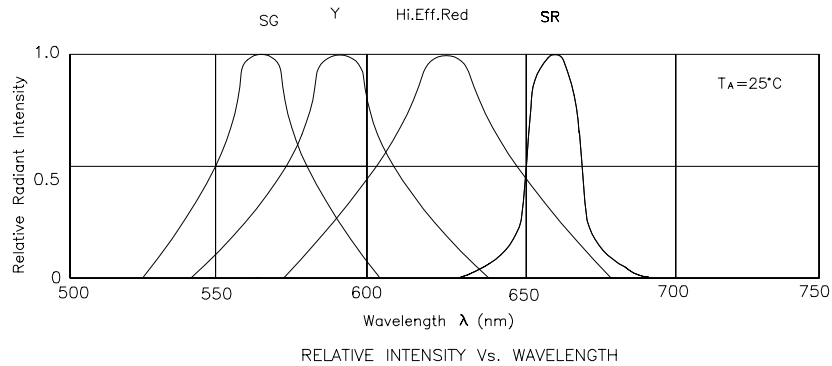
| Symbol                | Parameter               | Device                                                                  | Typ.                      | Max.                     | Units | Test Conditions |
|-----------------------|-------------------------|-------------------------------------------------------------------------|---------------------------|--------------------------|-------|-----------------|
| $\lambda_{peak}$      | Peak Wavelength         | High Efficiency Red<br>Super Bright Green<br>Yellow<br>Super Bright Red | 627<br>565<br>590<br>660  |                          | nm    | IF=20mA         |
| $\lambda_D$           | Dominate Wavelength     | High Efficiency Red<br>Super Bright Green<br>Yellow<br>Super Bright Red | 625<br>568<br>588<br>640  |                          | nm    | IF=20mA         |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | High Efficiency Red<br>Super Bright Green<br>Yellow<br>Super Bright Red | 45<br>30<br>35<br>20      |                          | nm    | IF=20mA         |
| C                     | Capacitance             | High Efficiency Red<br>Super Bright Green<br>Yellow<br>Super Bright Red | 15<br>15<br>20<br>45      |                          | pF    | VF=0V;f=1MHz    |
| V <sub>F</sub>        | Forward Voltage         | High Efficiency Red<br>Super Bright Green<br>Yellow<br>Super Bright Red | 2.0<br>2.2<br>2.1<br>1.85 | 2.5<br>2.5<br>2.5<br>2.5 | V     | IF=20mA         |
| I <sub>R</sub>        | Reverse Current         | All                                                                     |                           | 10                       | uA    | VR = 5V         |

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

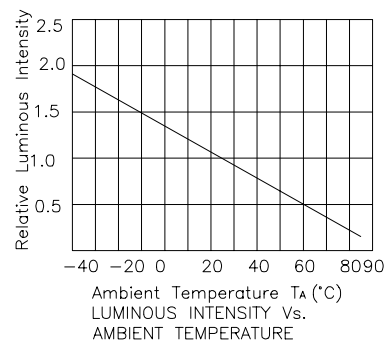
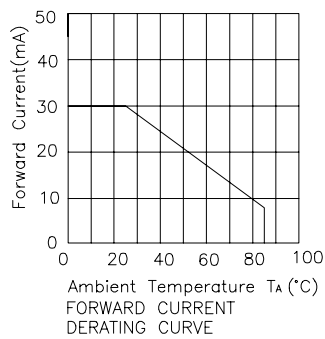
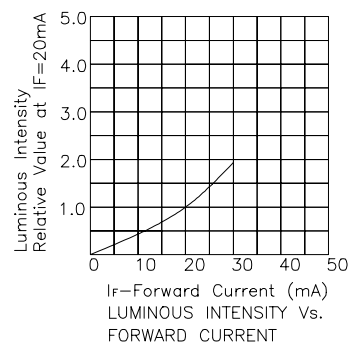
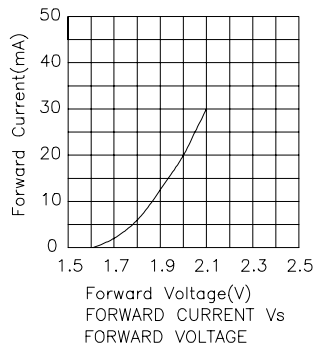
| Parameter                     | High Efficiency Red | Super Bright Green | Yellow | Super Bright Red | Units |
|-------------------------------|---------------------|--------------------|--------|------------------|-------|
| Power dissipation             | 105                 | 105                | 105    | 100              | mW    |
| DC Forward Current            | 30                  | 25                 | 30     | 30               | mA    |
| Peak Forward Current [1]      | 160                 | 140                | 140    | 155              | mA    |
| Reverse Voltage               | 5                   | 5                  | 5      | 5                | V     |
| Operating/Storage Temperature | -40°C To +85°C      |                    |        |                  |       |
| Lead Solder Temperature [2]   | 260°C For 5 Seconds |                    |        |                  |       |

Notes:

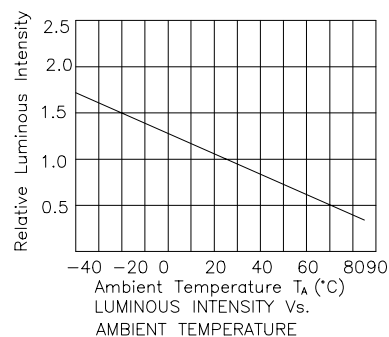
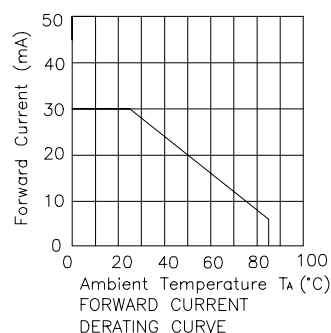
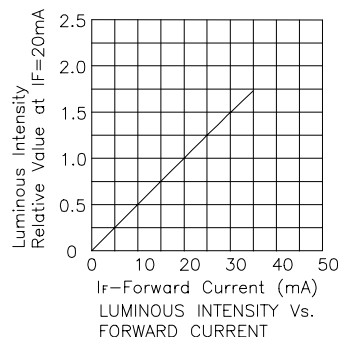
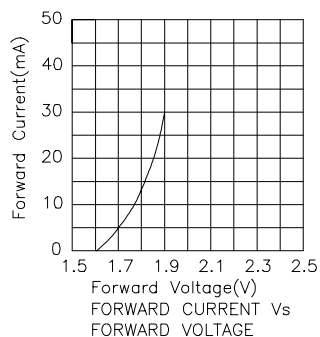
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



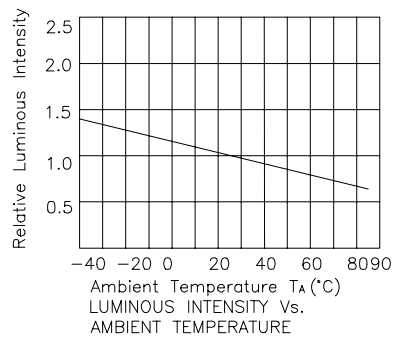
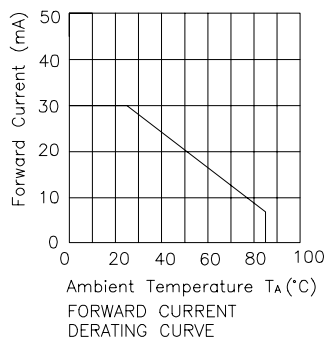
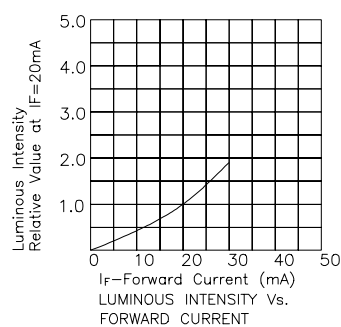
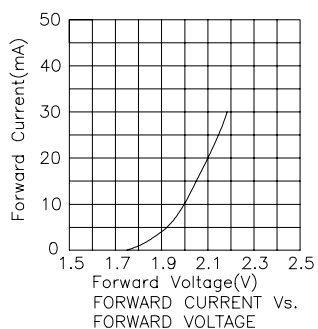
High Efficiency Red KB2685EW



## Super Bright Red KBH100SRW



## Yellow KB2785YW



Super Bright Green KB2885SGD

