

Part Number: TBC40-11EGWA

High Efficiency Red  
Green

### Features

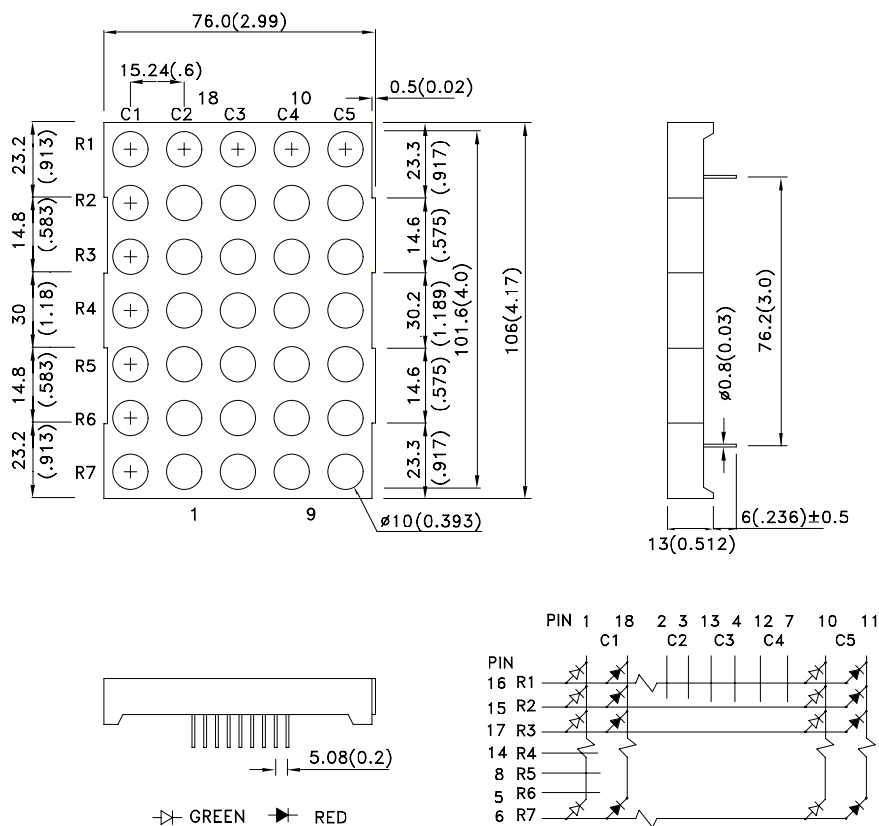
- 4.0 INCH MATRIX HEIGHT.
- DOT SIZE 10mm.
- LOW CURRENT OPERATION.
- HIGH CONTRAST AND LIGHT OUTPUT.
- COMPATIBLE WITH ASCII AND EBCDIC CODES.
- STACKABLE HORIZONTALLY.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- MULTICOLOR AVAILABLE.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE DOT.
- RoHS COMPLIANT.

### Description

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

The 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), Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
2. Specifications are subject to change without notice.



## Selection Guide

| Part No.     | Dice                            | Lens Type      | Iv (ucd) [1]<br>@ 10mA |       | Description    |
|--------------|---------------------------------|----------------|------------------------|-------|----------------|
|              |                                 |                | Min.                   | Typ.  |                |
| TBC40-11EGWA | High Efficiency Red (GaAsP/GaP) | WHITE DIFFUSED | 8000                   | 33000 | Column Cathode |
|              | Green (GaP)                     |                | 12000                  | 42000 |                |

Note:

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

## Electrical / Optical Characteristics at TA=25°C

| Symbol                | Parameter                 | Device                       | Typ.       | Max.       | Units | Test Conditions           |
|-----------------------|---------------------------|------------------------------|------------|------------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength           | High Efficiency Red<br>Green | 627<br>565 |            | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$ [1]       | Dominant Wavelength       | High Efficiency Red<br>Green | 625<br>568 |            | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width  | High Efficiency Red<br>Green | 45<br>30   |            | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance               | High Efficiency Red<br>Green | 15<br>15   |            | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage (Per Dot) | High Efficiency Red<br>Green | 4.0<br>4.4 | 5.0<br>5.0 | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current (Per Dot) | High Efficiency Red<br>Green |            | 10<br>10   | uA    | V <sub>R</sub> =10V       |

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

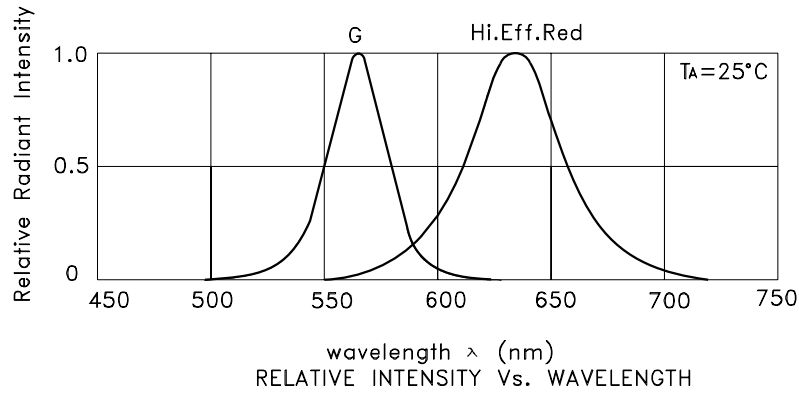
## Absolute Maximum Ratings at TA=25°C

| Parameter                          | High Efficiency Red   | Green | Units |
|------------------------------------|-----------------------|-------|-------|
| Power dissipation (Per Dot)        | 150                   | 125   | mW    |
| DC Forward Current (Per Dot)       | 30                    | 25    | mA    |
| Peak Forward Current [1] (Per Dot) | 160                   | 140   | mA    |
| Reverse Voltage (Per Dot)          | 10                    |       | V     |
| Operating/Storage Temperature      | -40°C To +85°C        |       |       |
| Lead Solder Temperature [2]        | 260°C For 3-5 Seconds |       |       |

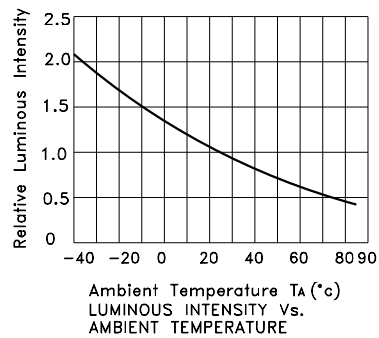
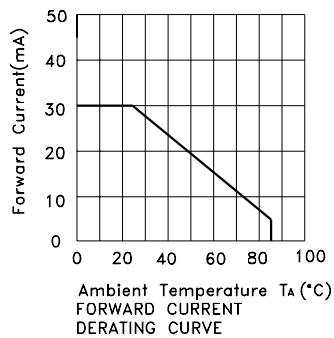
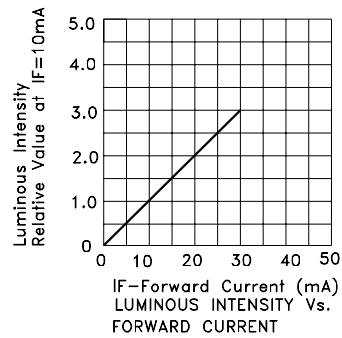
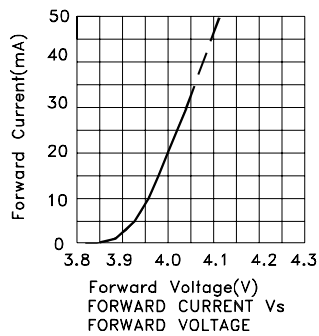
Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

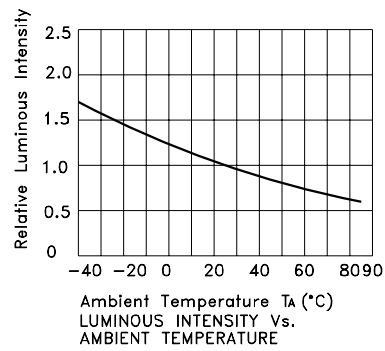
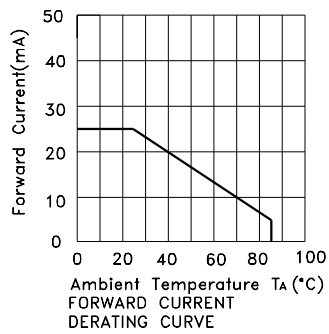
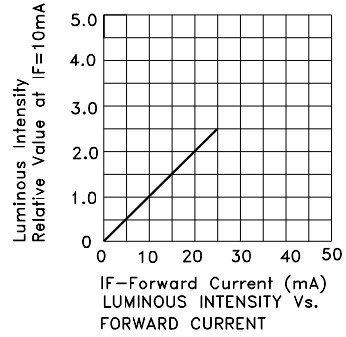
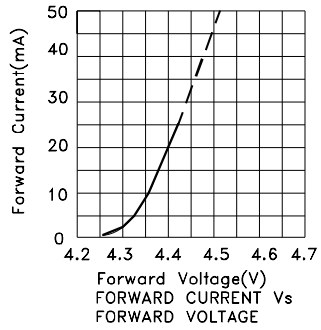
2. 2mm below package base.



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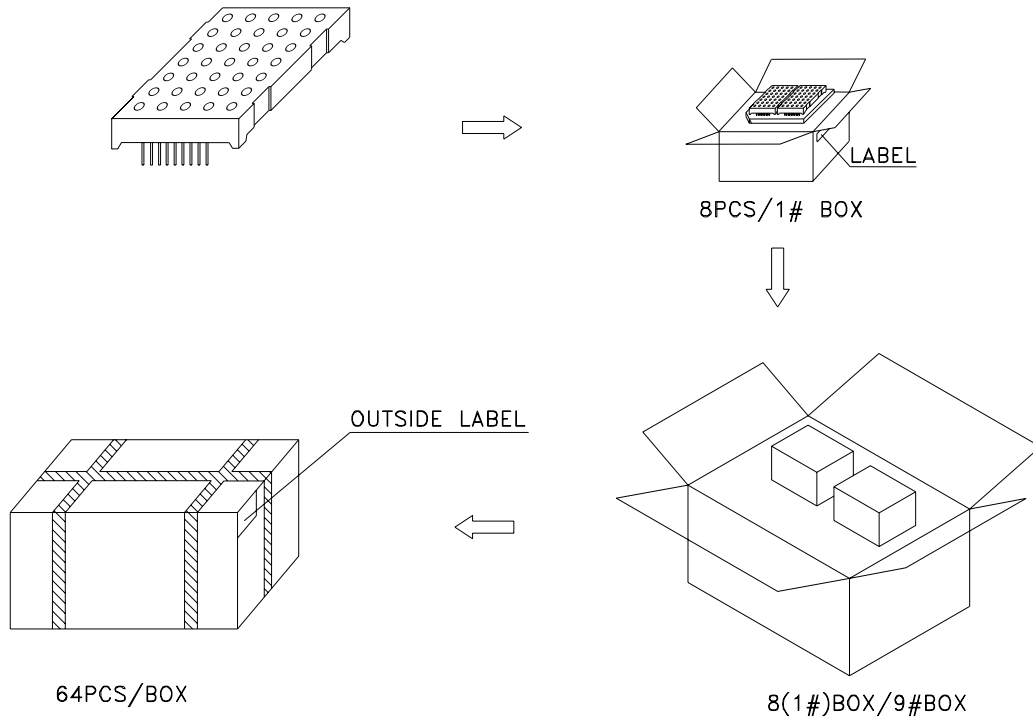


## Green

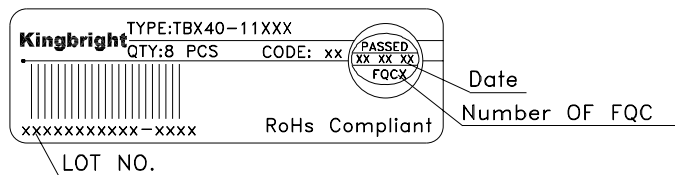


**PACKING & LABEL SPECIFICATIONS**

**TBC40-11EGWA**



Inside LABEL Paste On The 1#BOX



Outside LABEL Paste On The Box

