

TBA18-81EGWA

TBC18-81EGWA

### Features

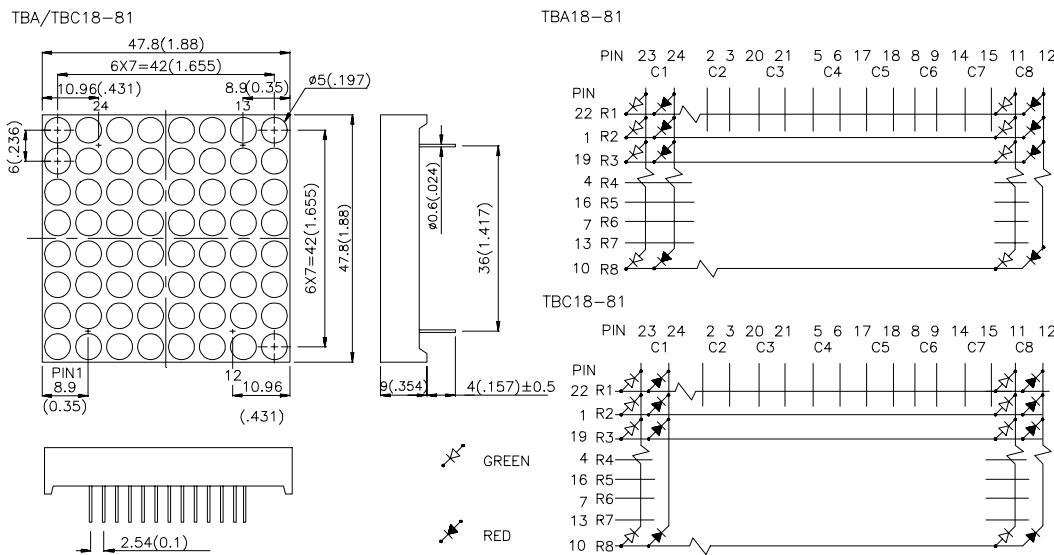
- 1.8 INCH MATRIX HEIGHT.
- DOT SIZE 5mm.
- LOW CURRENT OPERATION.
- HIGH CONTRAST AND LIGHT OUTPUT.
- COMPATIBLE WITH USACII AND EBCDIC CODES.
- STACKABLE HORIZONTALLY.
- COLUMN CATHODE AND COLUMN ANODE AVAILABLE.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- MULTICOLOR AVAILABLE.
- CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE DOT.

### 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   | I <sub>V</sub> (ucd)<br>@ 10 mA |       | Description    |
|--------------|--|---------------------------------|-------|----------------|
|              |  | Min.                            | Typ.  |                |
| TBA18-81EGWA | HIGH EFFICIENCY RED (GaAsP/GaP)<br>GREEN (GaP) | 4700                            | 12000 | Column Anode   |
| TBC18-81EGWA |  | 12000                           | 26000 | Column Cathode |

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

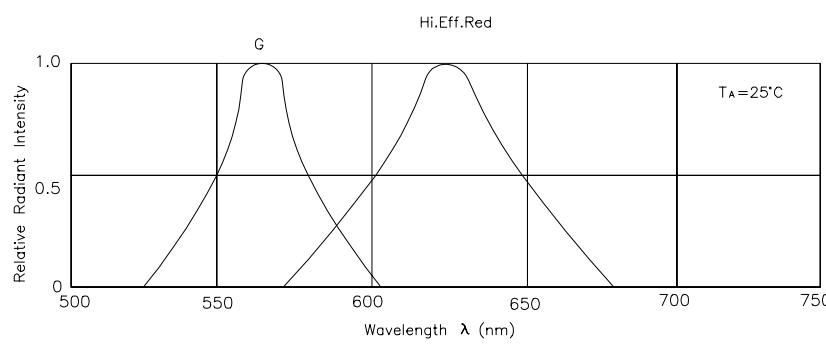
| Symbol            | Parameter               | Device                    | Typ.       | Max.       | Units | Test Conditions |
|-------------------|-------------------------|---------------------------|------------|------------|-------|-----------------|
| $\lambda_{peak}$  | Peak Wavelength         | High Efficiency Red Green | 627<br>565 |            | nm    | IF=20mA         |
| $\lambda_D$       | Dominate Wavelength     | High Efficiency Red Green | 625<br>568 |            | nm    | IF=20mA         |
| $\Delta\lambda/2$ | Spectral Line Halfwidth | High Efficiency Red Green | 45<br>30   |            | nm    | IF=20mA         |
| C                 | Capacitance             | High Efficiency Red Green | 15<br>15   |            | pF    | VF=0V;f=1MHz    |
| V <sub>F</sub>    | Forward Voltage         | High Efficiency Red Green | 2.0<br>2.2 | 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

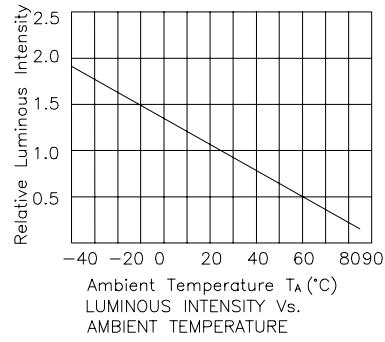
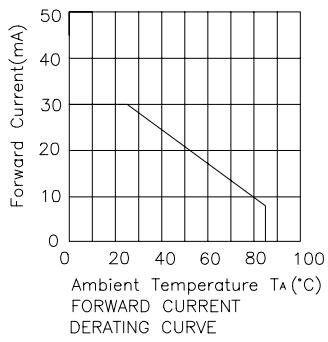
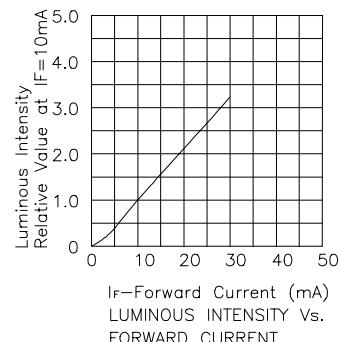
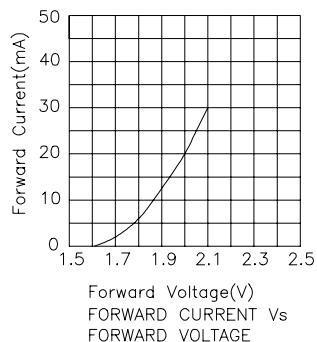
| Parameter                     | High Efficiency Red | Green | Units |
|-------------------------------|---------------------|-------|-------|
| Power dissipation             | 105                 | 105   | mW    |
| DC Forward Current            | 30                  | 25    | mA    |
| Peak Forward Current [1]      | 160                 | 140   | mA    |
| Reverse Voltage               | 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



## Green

