

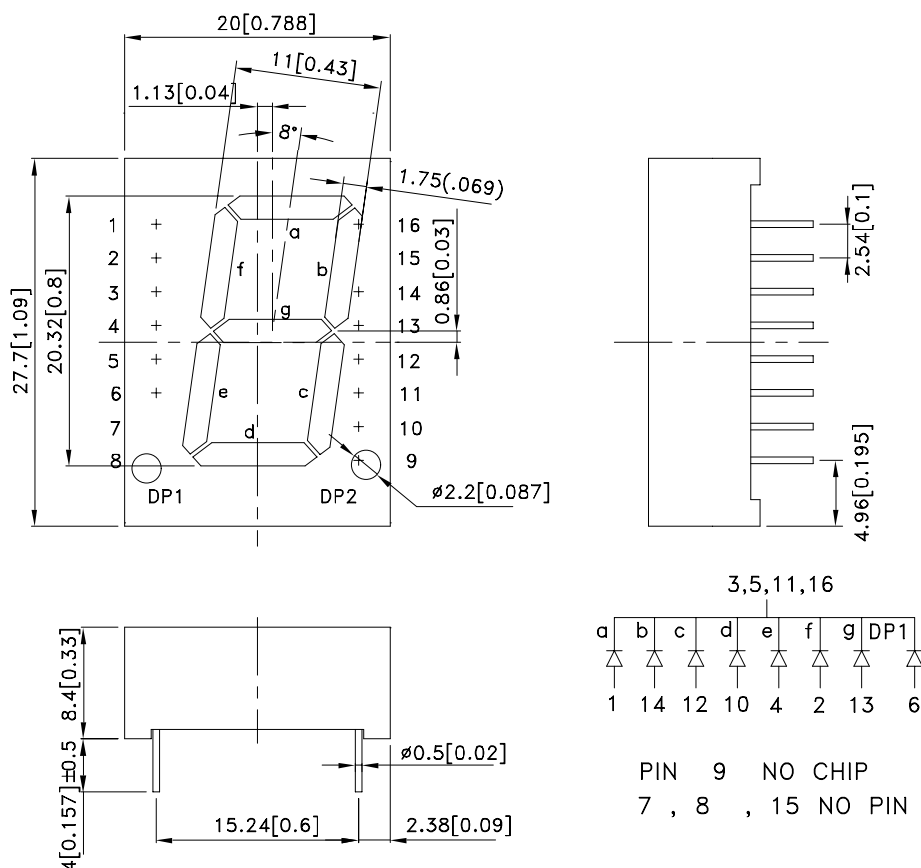
### Features

- 0.8 INCH DIGIT HEIGHT.
- EXCELLENT CHARACTER APPEARANCE.
- HIGH LIGHT OUTPUT.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- I.C. COMPATIBLE.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE SEGMENT.
- RoHS COMPLIANT.

### Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange 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. |                                     |
| SC08-12EWA | High Efficiency Red (GaAsP/GaP) | WHITE DIFFUSED | 1900                   | 8000 | Common Cathode, Lt<br>Hand Decimal. |

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 | 627  |      | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$ [1]       | Dominant Wavelength      | High Efficiency Red | 625  |      | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | High Efficiency Red | 45   |      | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | High Efficiency Red | 15   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | High Efficiency Red | 2.0  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | High Efficiency Red |      | 10   | uA    | V <sub>R</sub> =5V        |

Notes:

1.Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

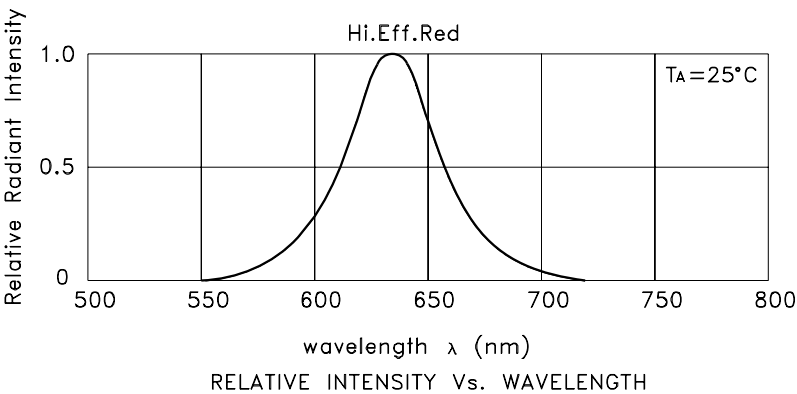
## Absolute Maximum Ratings at TA=25°C

| Parameter                       | High Efficiency Red   | Units |
|---------------------------------|-----------------------|-------|
| Power dissipation               | 75                    | mW    |
| DC Forward Current              | 30                    | mA    |
| Peak Forward Current [1]        | 160                   | mA    |
| Reverse Voltage                 | 5                     | V     |
| Operating / Storage Temperature | -40°C To +85°C        |       |
| Lead Solder Temperature[2]      | 260°C For 3-5 Seconds |       |

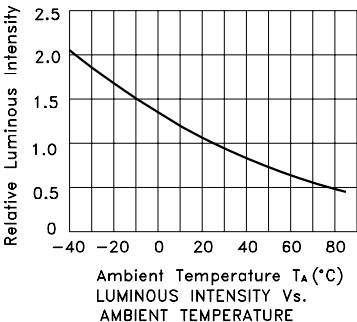
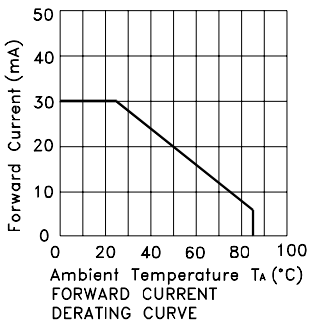
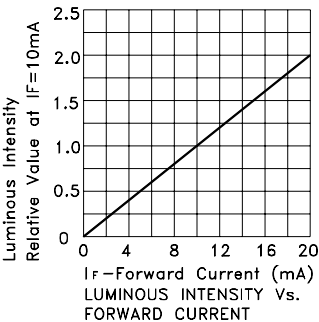
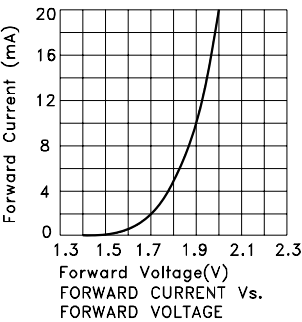
Notes:

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

2. 2mm below package base.

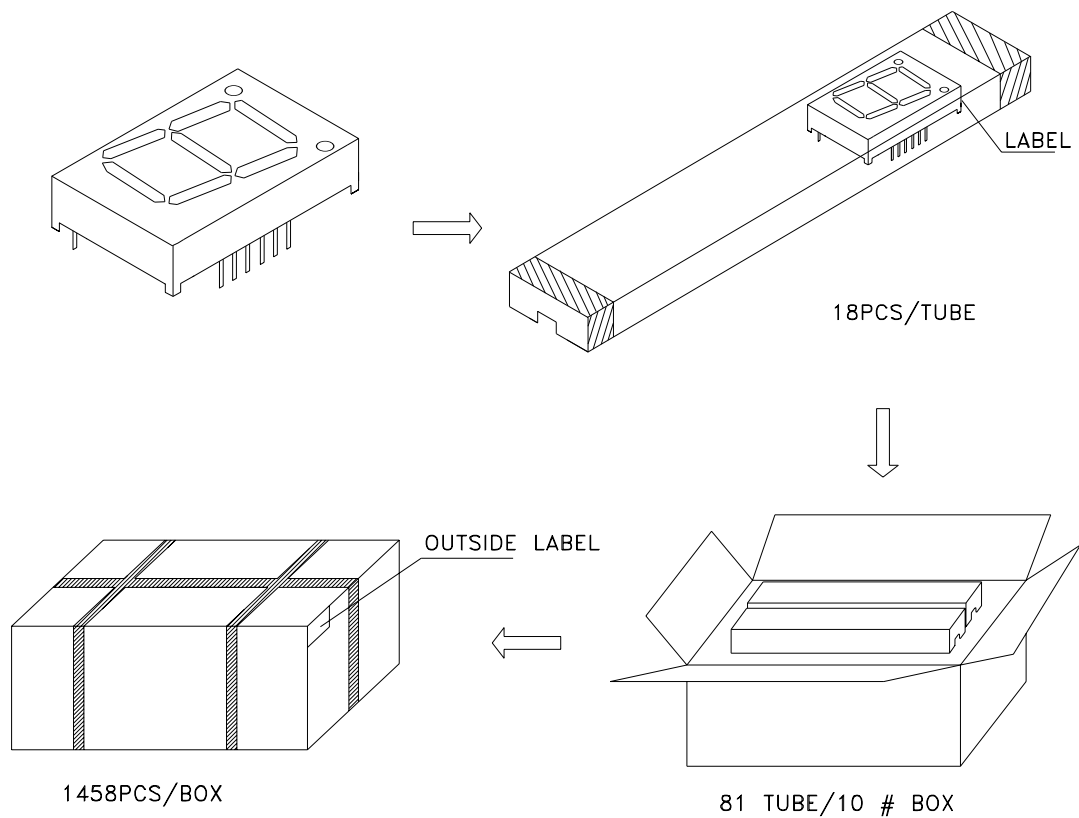


High Efficiency Red SC08-12EWA



## PACKING & LABEL SPECIFICATIONS

**SC08-12EWA**



Inside LABEL Paste On The IC-tube

The diagram shows a rectangular label with the following fields and callouts:

- Kingbright**: Brand name in the top left corner.
- TYPE: SX08-12XXX**: Part type specification.
- QTY:18PCS**: Quantity.
- CODE: xx**: Code.
- RoHs Compliant**: Text at the bottom center.
- LOT NO.**: Text at the bottom left, pointing to the barcode area.
- Barcode**: A standard 1D barcode with the text **XXXXXXXXXX-XXXX** below it.
- Circle Callout**: A circular callout containing the text **PASSED**, **XX XX XX**, and **FQC**.
- Date**: Text at the top right, pointing to a line for date entry.
- Number OF FQC**: Text at the bottom right, pointing to a line for number of FQC entry.

Outside LABEL Paste On The Box

Diagram illustrating the components of a QR code label:

- SX08-12XXX**: Part number
- 1458**: Lot number
- PCS**: Process name
- QAx**: QR code
- xx xx xxxx**: Date
- PASSED**: Test result
- RoHs Compliant**: Compliance status
- Number OF QA**: Number of Quality Assurance