

Part Number: SA50-31EWA

High Efficiency Red

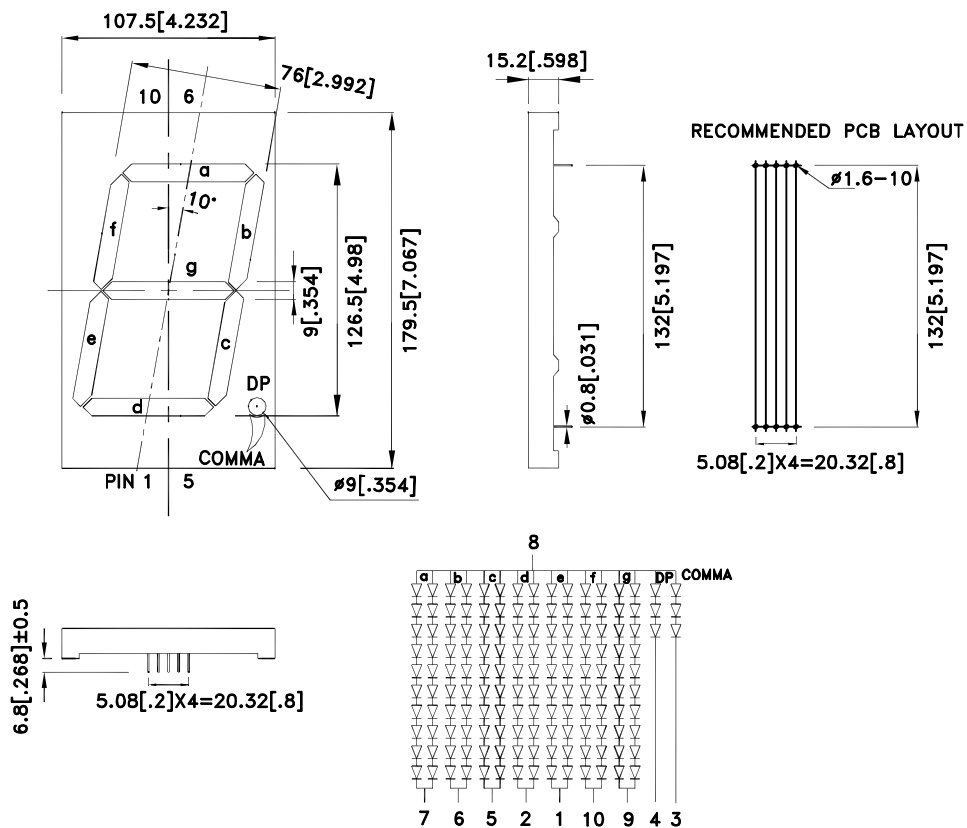
### Features

- 5.0 inch digit height.
- Low current operation.
- Excellent character appearance.
- Easy mounting on P.C. boards or sockets.
- Categorized for luminous intensity.
- 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] @ 10mA		Description
			Min.	Typ.	
SA50-31EWA	High Efficiency Red (GaAsP/GaP)	WHITE DIFFUSED	18000	52300	Common Anode, Rt. 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 Per Segment or (DP and Comma)	High Efficiency Red	20.0 (6.0)	25.0 (7.5)	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current Per Segment or (DP and Comma)	High Efficiency Red		20 (10)	uA	V <sub>R</sub> =50V (V <sub>R</sub> =15V)

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

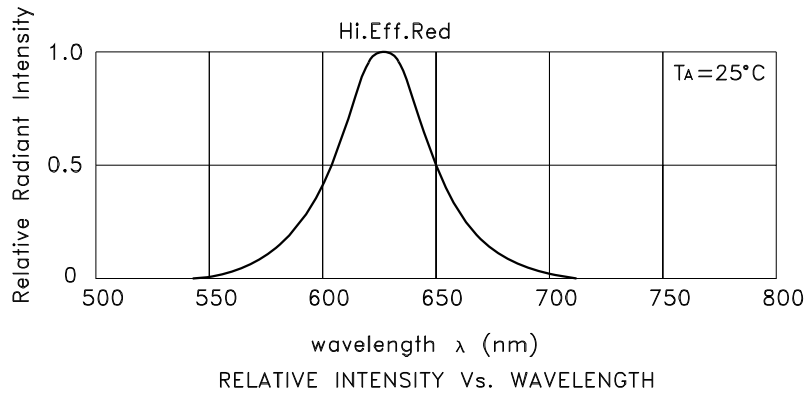
## Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red	Units
Power dissipation Per Segment (DP and comma)	1500 (225)	mW
DC Forward Current Per Segment (DP and comma)	60 (30)	mA
Peak Forward Current [1] Per Segment (DP and comma)	320 (160)	mA
Reverse Voltage Per Segment (DP and comma)	50 (15)	V
Operating / Storage Temperature	-40°C To +85°C	
Lead Solder Temperature[2]	260°C For 3-5 Seconds	

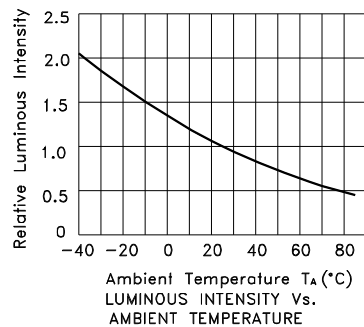
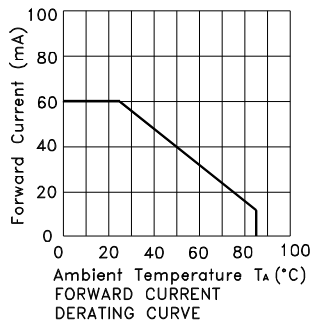
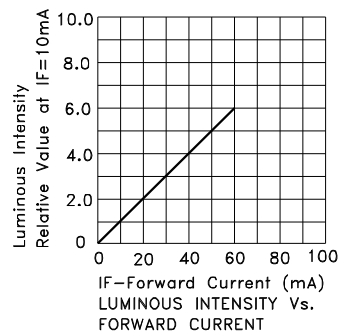
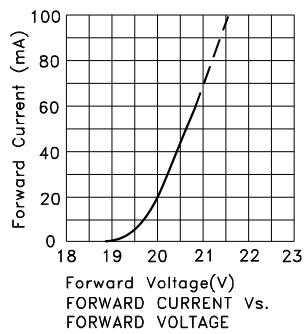
Notes:

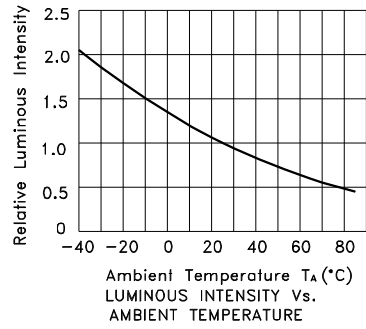
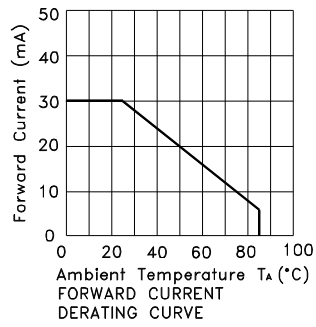
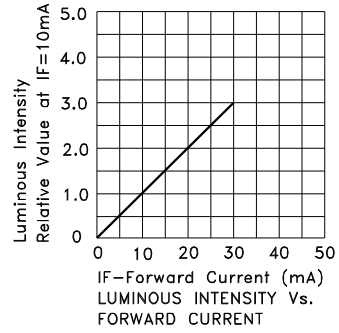
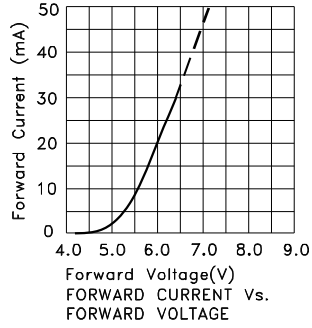
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

2. 2mm below package base.



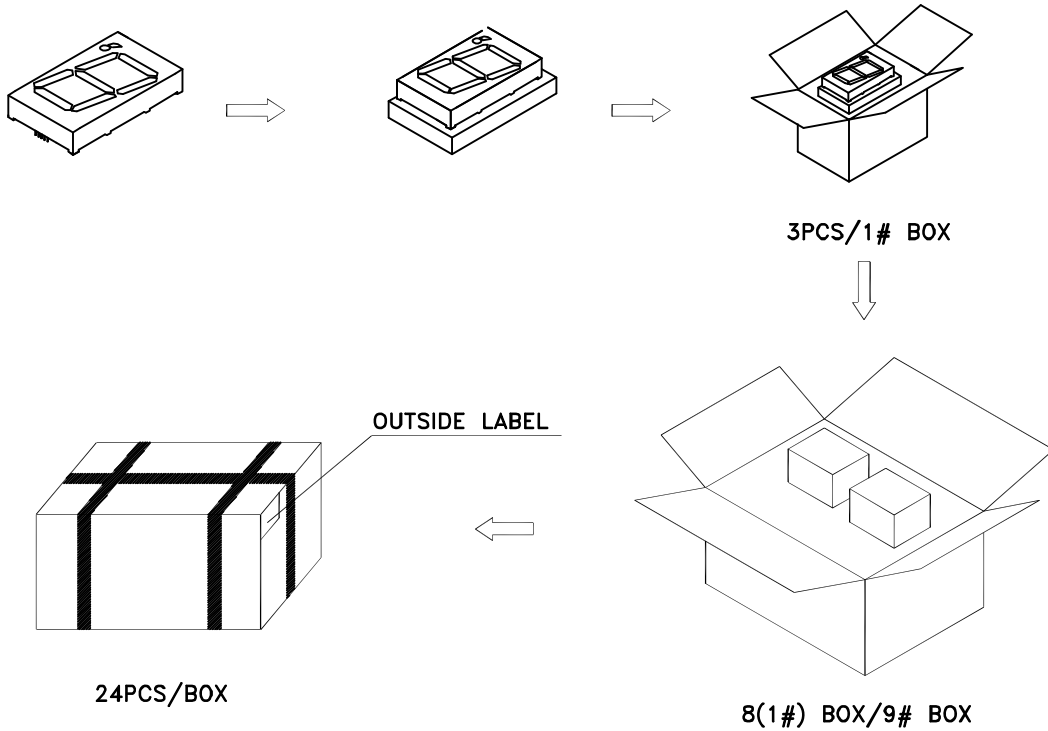
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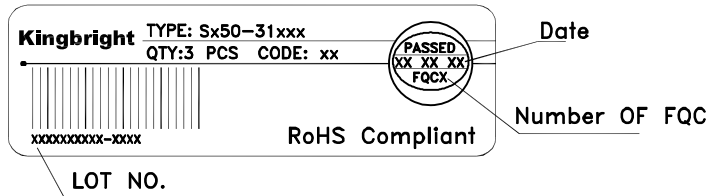


**PACKING & LABEL SPECIFICATIONS**

**SA50-31EWA**



Inside Label Paste On The 1#BOX



Outside Label Paste On The Box

