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[ACSA03-41EWA-F01](#)

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## SURFACE MOUNT DISPLAY

P/N: ACSA03-41EWA-F01

HIGH EFFICIENCY RED

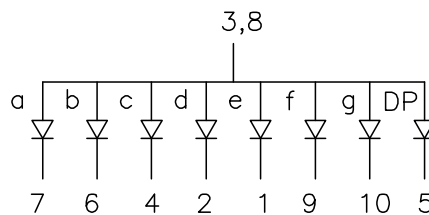
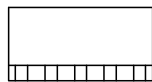
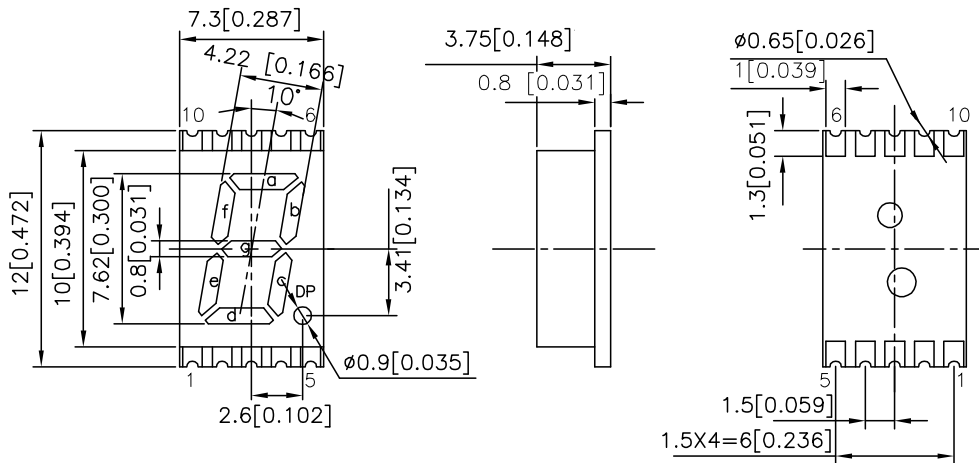
### Features

- 0.3 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- I.C. COMPATIBLE.
- MECHANICALLY RUGGED.
- GRAY FACE,WHITE SEGMENT.
- PACKAGE : 550PCS / REEL.
- 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.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

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## Selection Guide

| Part No.         | Dice                           | Lens Type      | Iv (ucd) @ 10mA |      | Description                     |
|------------------|--------------------------------|----------------|-----------------|------|---------------------------------|
|                  |                                |                | Min.            | Typ. |                                 |
| ACSA03-41EWA-F01 | HIGH EFFICIENCY RED(GaAsP/GaP) | WHITE DIFFUSED | 1200            | 4210 | Common Anode, Rt. Hand Decimal. |

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

| Symbol                | Parameter                | Device              | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|---------------------|------|------|-------|-----------------|
| $\lambda_{peak}$      | Peak Wavelength          | High Efficiency Red | 627  |      | nm    | IF=20mA         |
| $\lambda_D$           | Dominant Wavelength      | High Efficiency Red | 625  |      | nm    | IF=20mA         |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | High Efficiency Red | 45   |      | nm    | IF=20mA         |
| C                     | Capacitance              | High Efficiency Red | 15   |      | pF    | VF=0V;f=1MHz    |
| VF                    | Forward Voltage          | High Efficiency Red | 2.0  | 2.5  | V     | IF=20mA         |
| IR                    | Reverse Current          | High Efficiency Red |      | 10   | uA    | VR = 5V         |

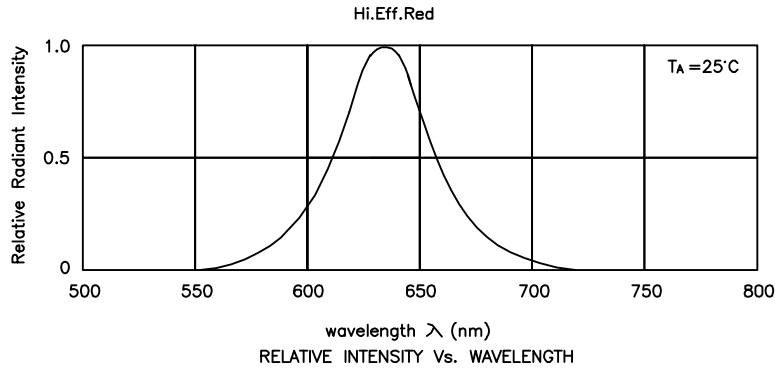
## Absolute Maximum Ratings at TA=25°C

| 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      |       |

Note:

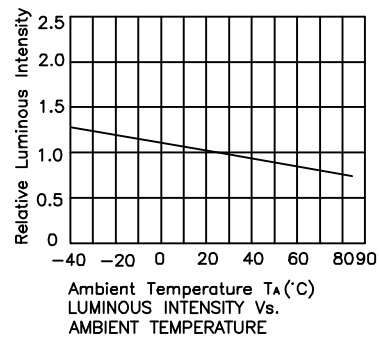
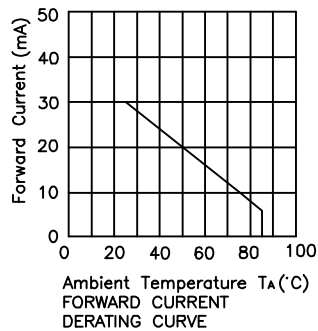
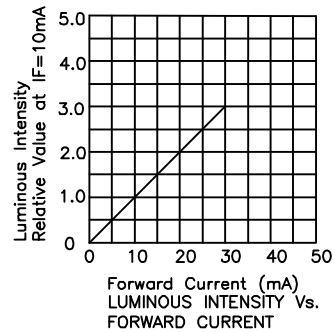
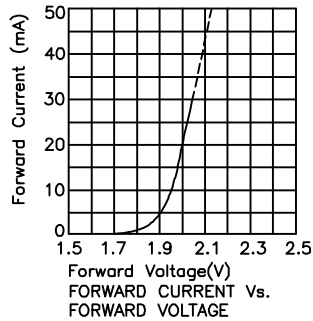
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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## High Efficiency Red

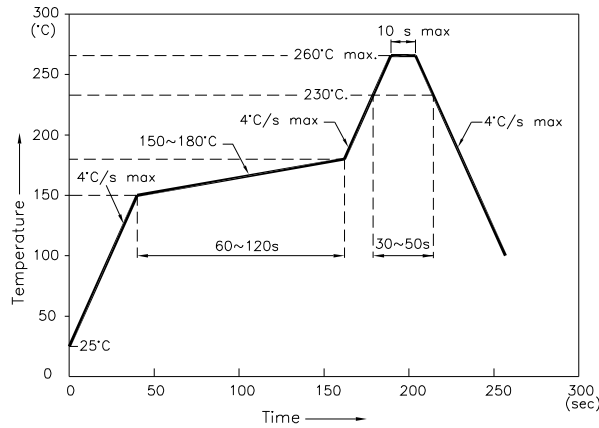
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## ACSA03-41EWA-F01

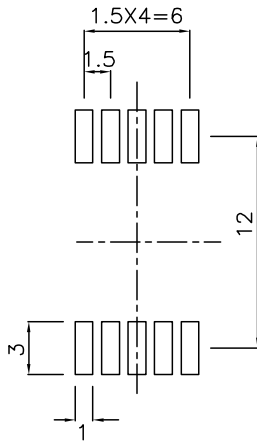
Reflow Soldering Profile For Lead-free SMT Process.



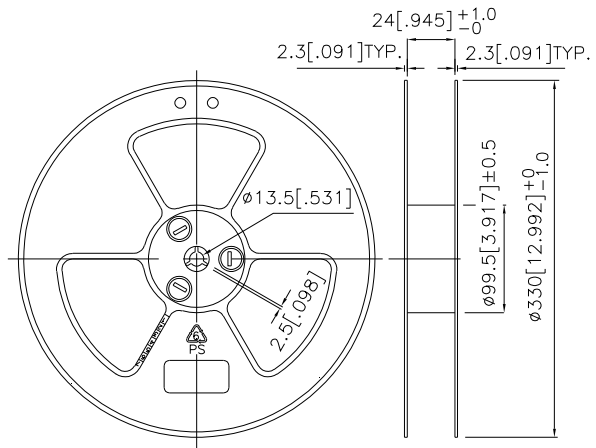
**NOTES:**

1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

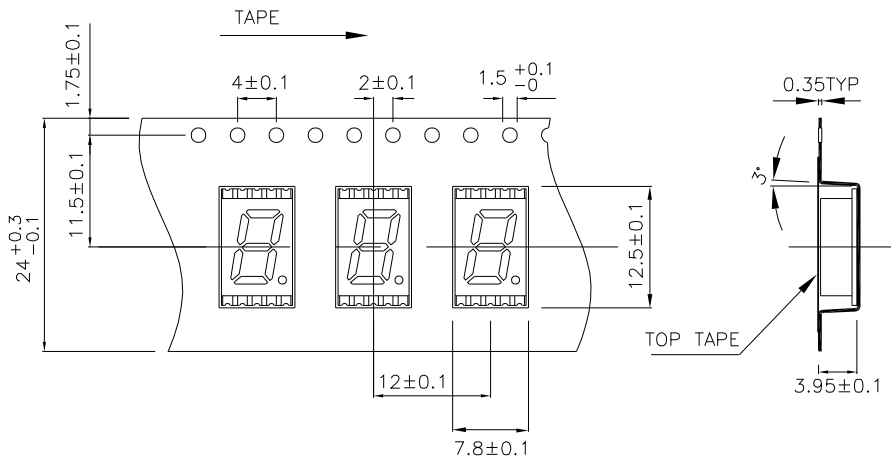
### Recommended Soldering Pattern (Units : mm)



### Reel Dimension



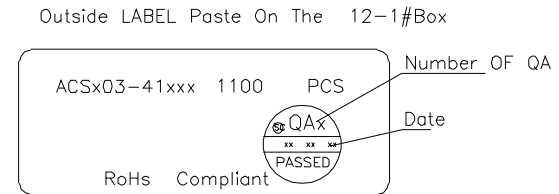
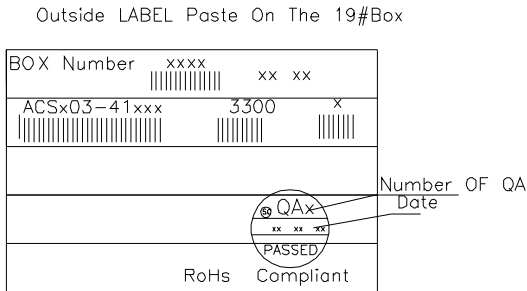
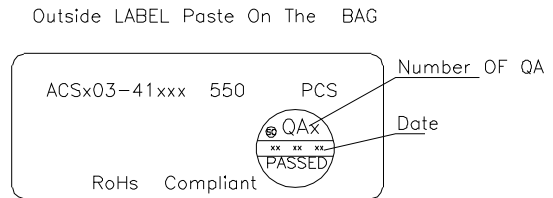
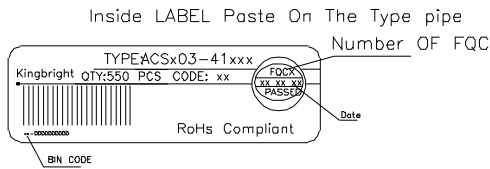
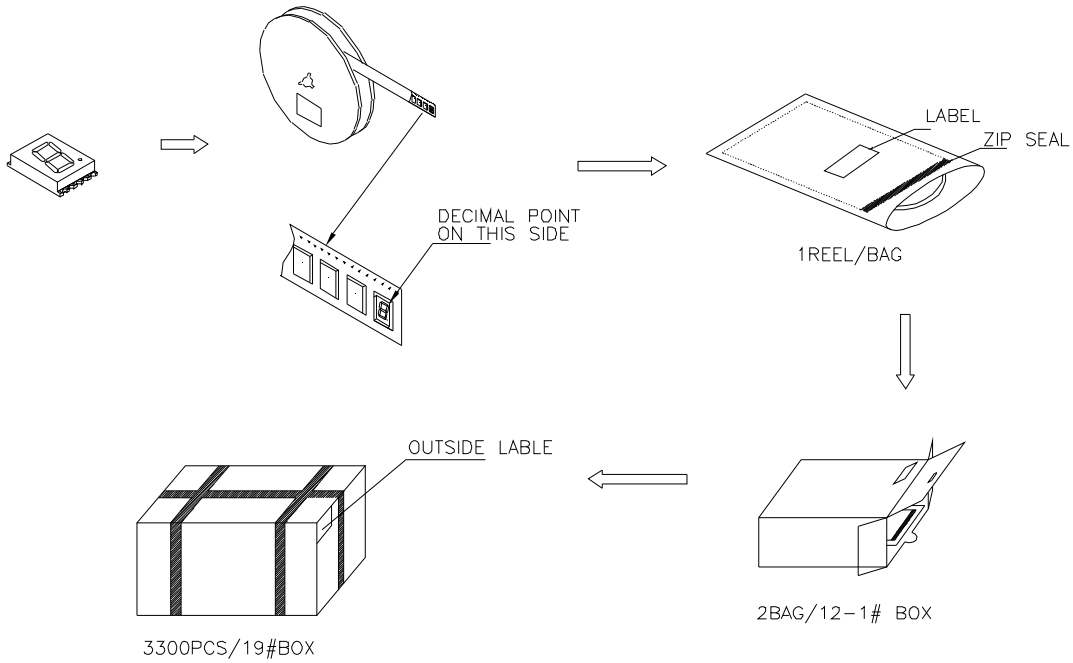
### Tape Specifications (Units : mm)



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## PACKING & LABEL SPECIFICATIONS

## ACSA03-41EWA-F01



**Remarks:**

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous intensity/ luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.