

Part Number: WP7104ALUP/2ID-0L

High Efficiency Red

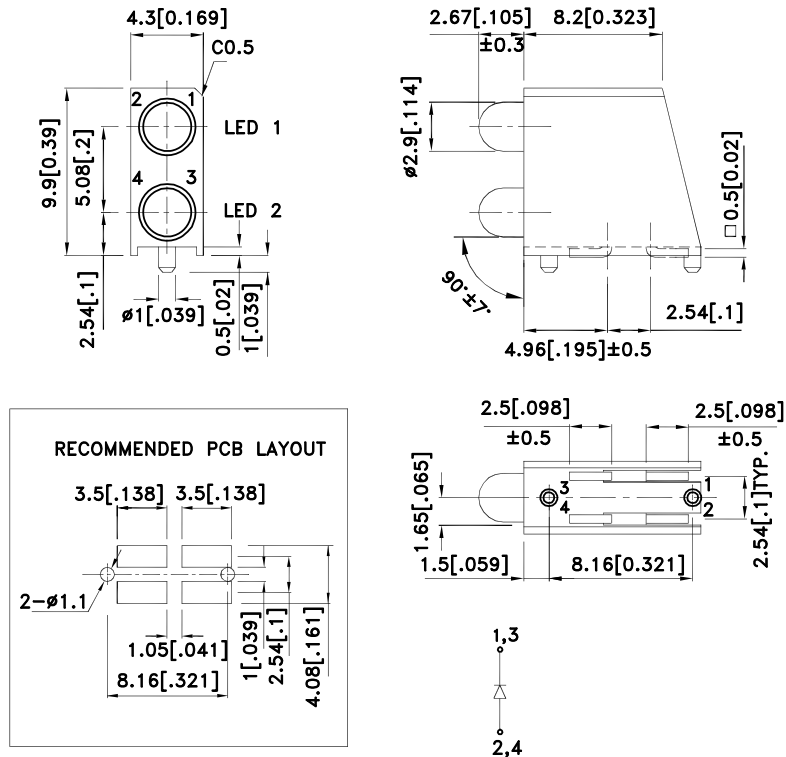
Features

- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability life measured in years.
- Housing material: PPA.
- High temperature resistant housing.
- High glass transition temperature epoxy.
- 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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 10mA | | Viewing Angle [1] |
|-------------------|---------------------------------|--------------|------------------------|------|-------------------|
| | | | Min. | Typ. | 2θ1/2 |
| WP7104ALUP/2ID-0L | High Efficiency Red (GaAsP/GaP) | Red Diffused | 15 | 30 | 40° |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| λpeak | Peak Wavelength | High Efficiency Red | 627 | | nm | I _F =20mA |
| λD [1] | Dominant Wavelength | High Efficiency Red | 625 | | nm | I _F =20mA |
| Δλ1/2 | Spectral Line Half-width | High Efficiency Red | 45 | | nm | I _F =20mA |
| C | Capacitance | High Efficiency Red | 15 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | High Efficiency Red | 2.0 | 2.5 | V | I _F =20mA |
| I _R | Reverse Current | High Efficiency Red | | 10 | uA | V _R =5V |

Notes:

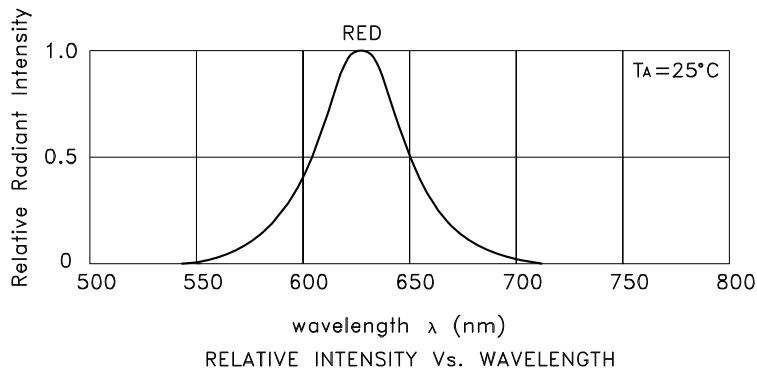
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

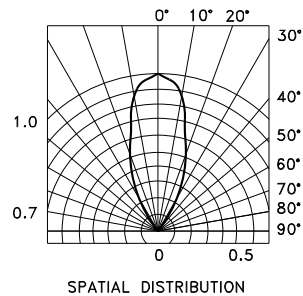
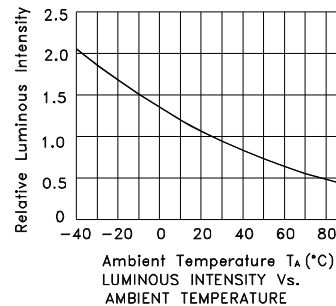
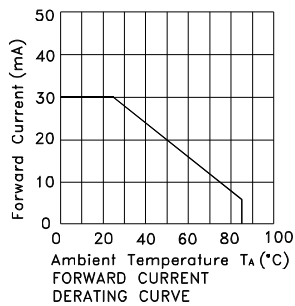
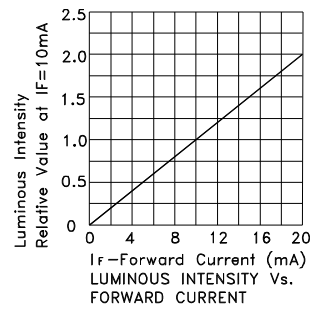
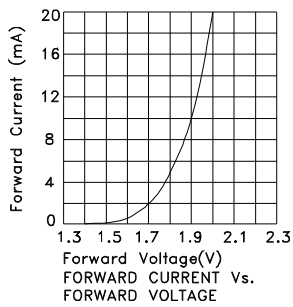
| Parameter | High Efficiency Red | Units |
|--------------------------|---------------------|-------|
| Power dissipation | 75 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 160 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature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

Note:

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

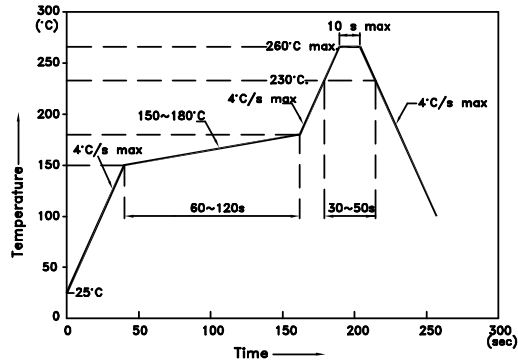


High Efficiency Red WP7104ALUP/2ID-0L



WP7104ALUP/2ID-0L

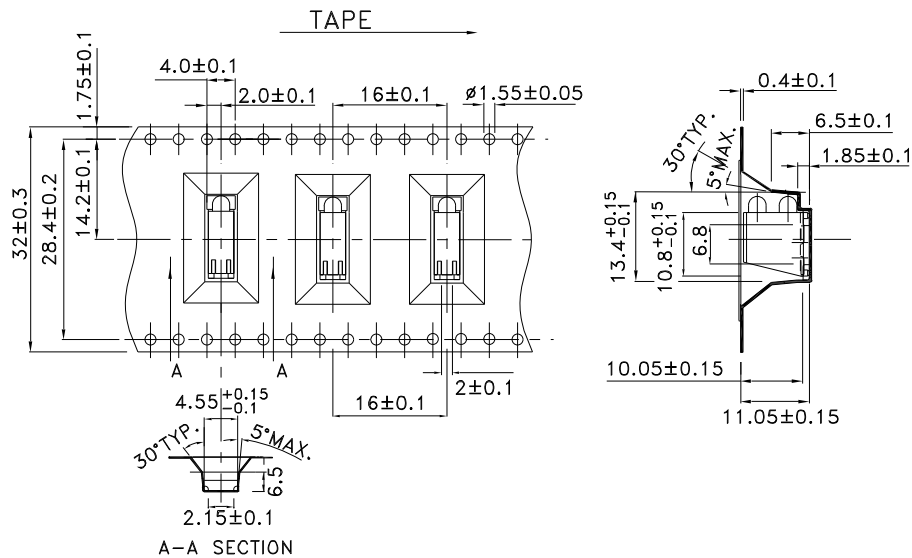
Reflow Soldering Profile For Lead-free SMT Process.



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. No more than once.

Tape Specifications (Units : mm)



No stress shall be applied on the LED during soldering to prevent damage.

