

Part Number: AM2520EJ/ID5V

High Efficiency Red

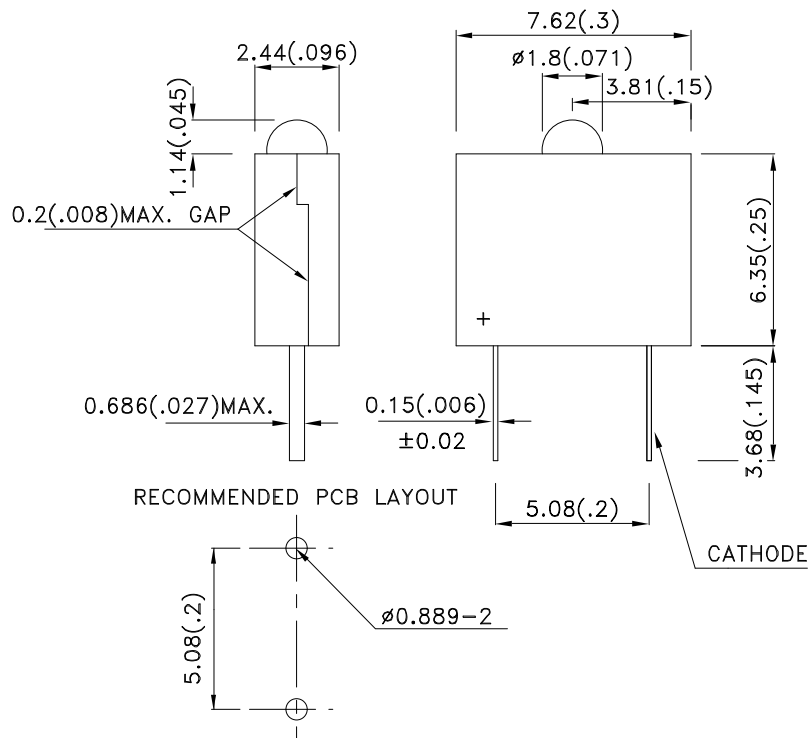
Features

- Black case enhances contrast.
- Vibration and shock resistant.
- 5V internal resistor.
- Housing UL rating:94V-0.
- Housing material: type 66 nylon.
- 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 ± 0.25 (0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. 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] V= 5V | | Viewing Angle [1] |
|---------------|---------------------------------|--------------|-----------------------|------|-------------------|
| | | | Min. | Typ. | 2θ1/2 |
| AM2520EJ/ID5V | High Efficiency Red (GaAsP/GaP) | Red Diffused | 4 | 12 | 40° |
| | | | *3 | *8 | |

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%.

* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | | Max. | Units | Test Conditions |
|--------|--------------------------|---------------------|------|------|------|-------|-----------------|
| λpeak | Peak Wavelength | High Efficiency Red | 627 | *627 | | nm | VF=5V |
| λD [1] | Dominant Wavelength | High Efficiency Red | 625 | *617 | | nm | VF=5V |
| Δλ1/2 | Spectral Line Half-width | High Efficiency Red | 45 | | | nm | VF=5V |
| IF | Forward Current | High Efficiency Red | 13 | | 17.5 | mA | VF=5V |
| IR | Reverse Current | High Efficiency Red | | | 10 | uA | VR = 5V |

Note:

1.Wavelength: +/-1nm.

*Wavelength value is traceable to the CIE127-2007 compliant national standards.

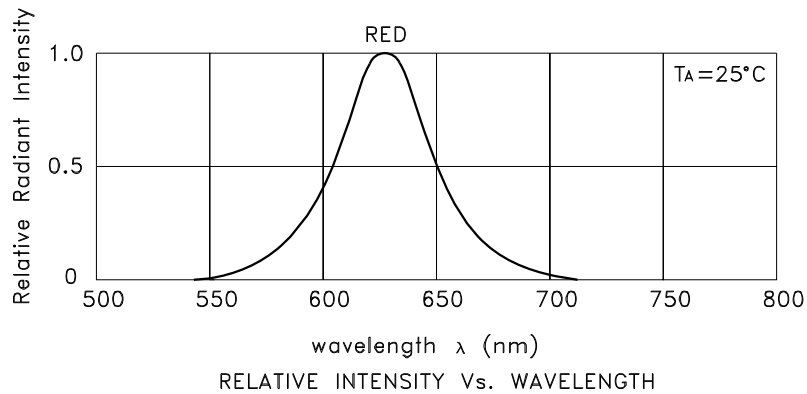
Absolute Maximum Ratings at TA=25°C

| Parameter | High Efficiency Red | Units |
|-----------------------------|---------------------|-------|
| Power dissipation | 85 | mW |
| Forward Voltage | 6 | V |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +70°C | |
| Storage Temperature | -40°C To +85°C | |
| Lead Solder Temperature [1] | 260°C For 3 Seconds | |
| Lead Solder Temperature [2] | 260°C For 5 Seconds | |

Notes:

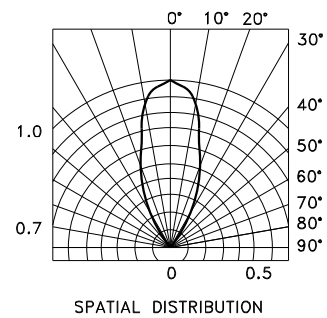
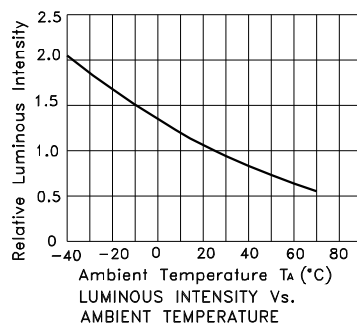
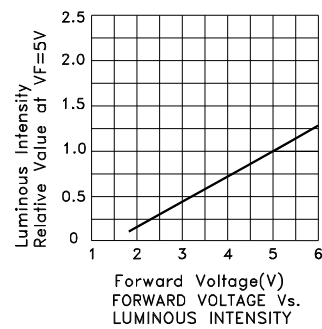
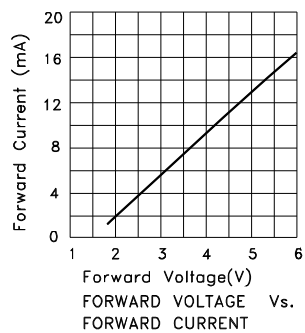
1. 2mm below package base.

2. 5mm below package base.



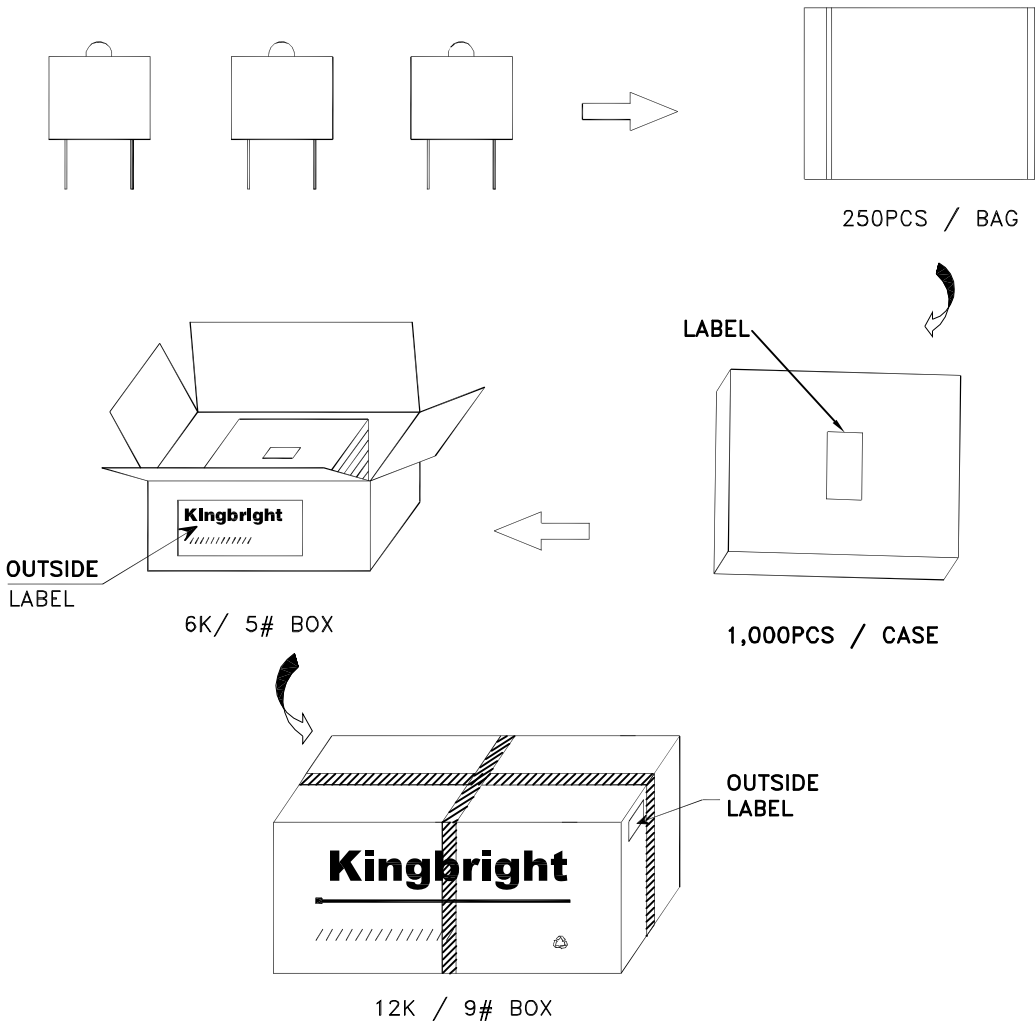
High Efficiency Red


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PACKING & LABEL SPECIFICATIONS

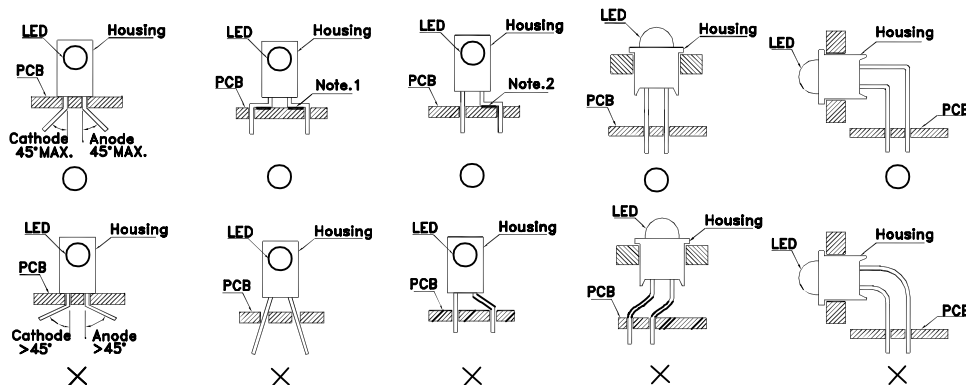
AM2520EJ/ID5V



| | | | | |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----|------------|--------|
| Kingbright | | | | |
| P/NO: AM2520EJxxx | | | | |
| QTY: 1000 pcs | Q.C. <table border="1"><tr><td>Q C</td></tr><tr><td>xx xx xxxx</td></tr><tr><td>PASSED</td></tr></table> | Q C | xx xx xxxx | PASSED |
| Q C | | | | |
| xx xx xxxx | | | | |
| PASSED | | | | |
| S/N: XXXX | | | | |
| CODE: XXX | | | | |
| LOT NO: | | | | |
|  | | | | |
| RoHS Compliant | | | | |

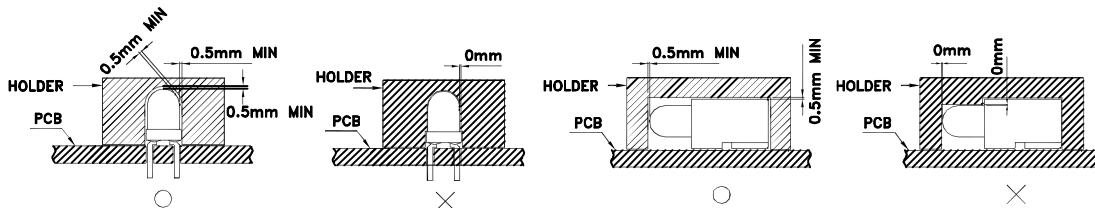
PRECAUTIONS

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.

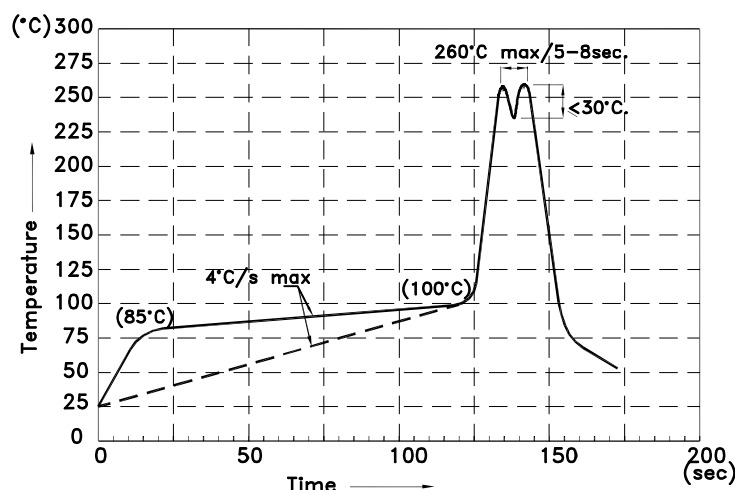


"○" Correct mounting method "X" Incorrect mounting method

2. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.



3. The tip of the soldering iron should never touch the lens epoxy.
4. Through-hole LEDs are incompatible with reflow soldering.
5. If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Kingbright for compatibility.
6. Recommended Wave Soldering Profile for Kingbright Thru-Hole Products



Notes:

1. Recommend the solder wave peak temperature kept between 245~260°C. The maximum soldering temperature should not exceed 260°C.
2. Do not apply stress to the epoxy body while the temperature is above 85°C.
3. During the wave soldering process, the preheat temperature must not exceed 100°C.
4. Fixtures should not place stress on the component when mounted.
5. No more than one soldering pass.