

Part Number: AM2520EJ/ID5V

High Efficiency Red

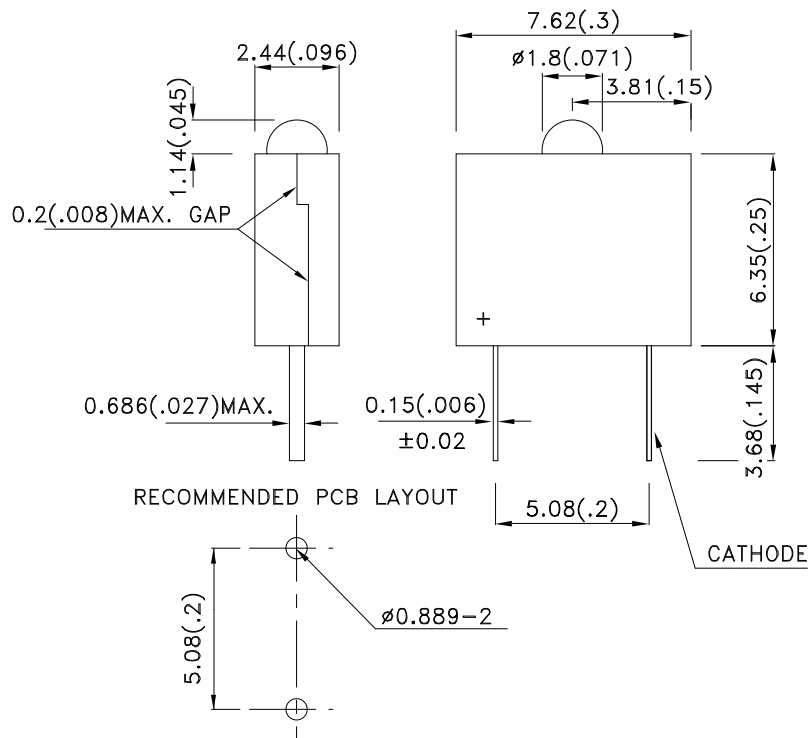
Features

- 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 $\pm 0.25 (0.01)$ 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	V _F =5V
λD [1]	Dominant Wavelength	High Efficiency Red	625	*617		nm	V _F =5V
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45			nm	V _F =5V
I _F	Forward Current	High Efficiency Red	13		17.5	mA	V _F =5V
I _R	Reverse Current	High Efficiency Red			10	μA	V _R = 5V

Note:

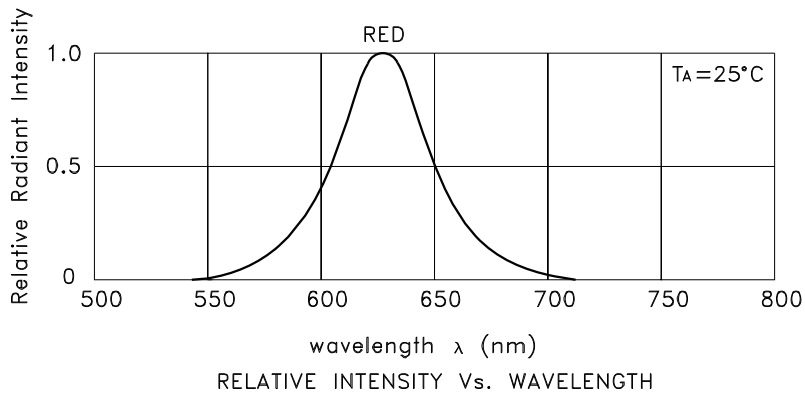
1. Wavelength: +/-1nm.
- *Wavelength value is traceable to the CIE127-2007 compliant national standards.

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	

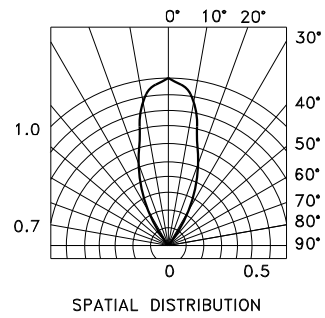
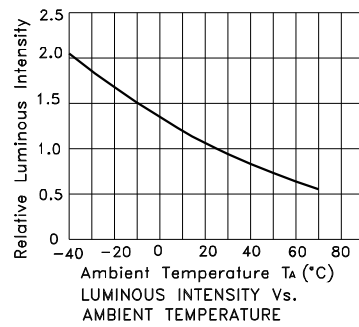
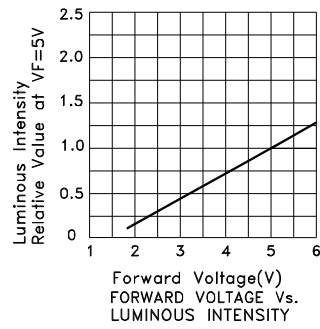
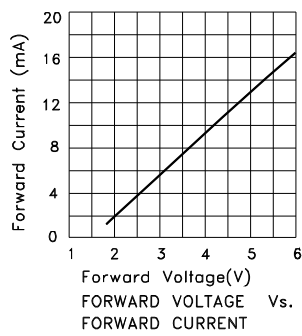
Notes:

1. 2mm below package base.
2. 5mm below package base.



High Efficiency Red

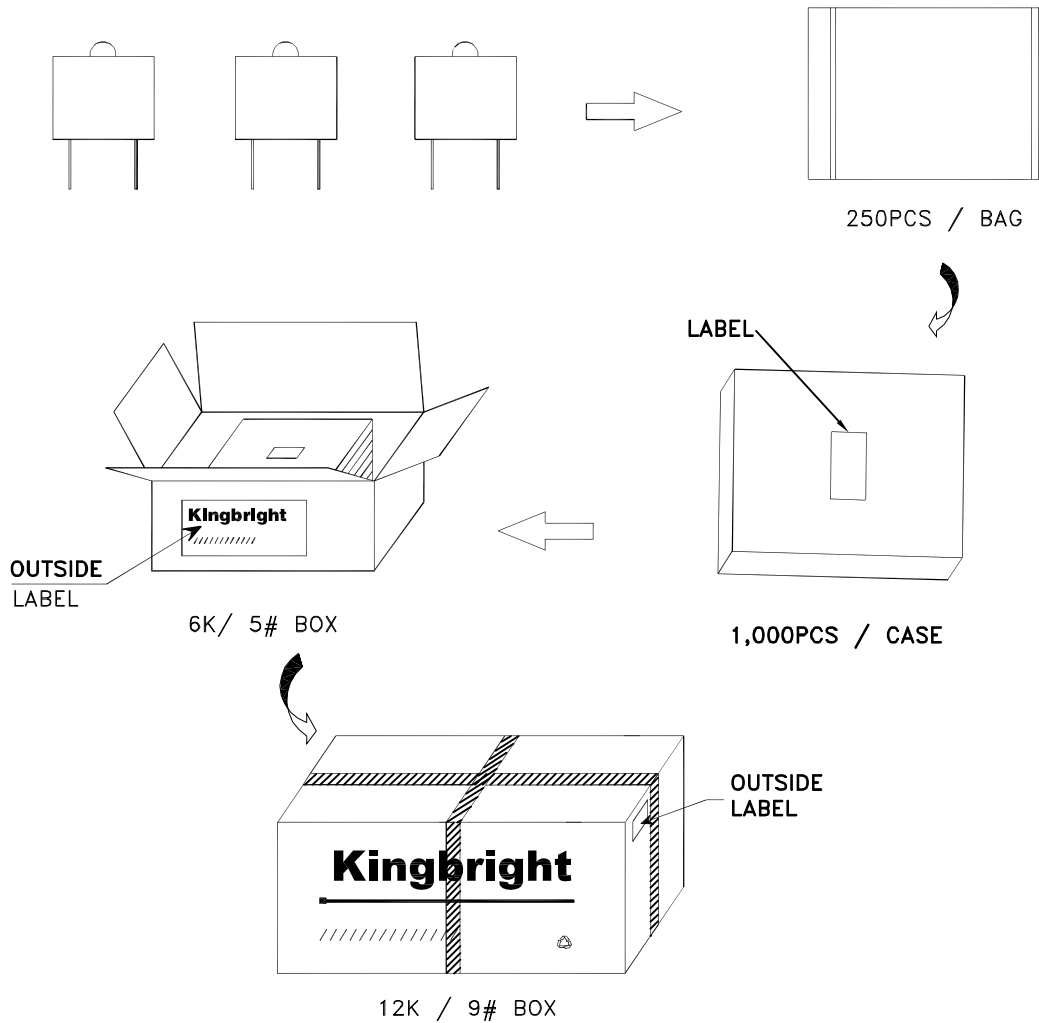
AM2520EJ/ID5V




Kingbright

PACKING & LABEL SPECIFICATIONS

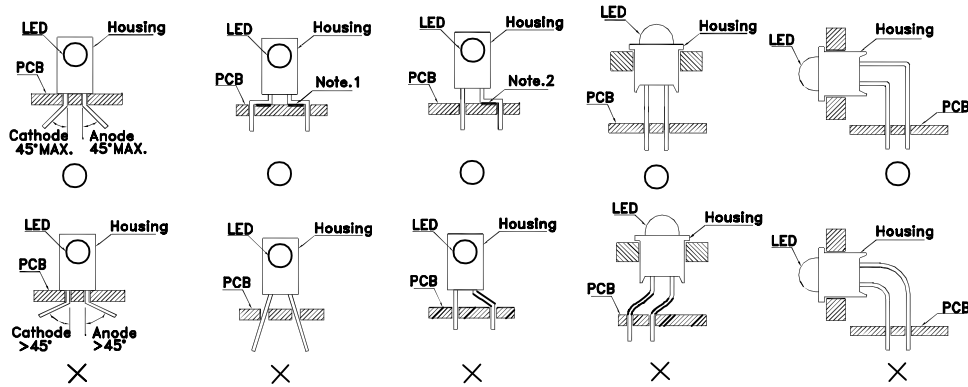
AM2520EJ/ID5V



Kingbright	
P/NO: AM2520EJxxx	
QTY: 1000 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	

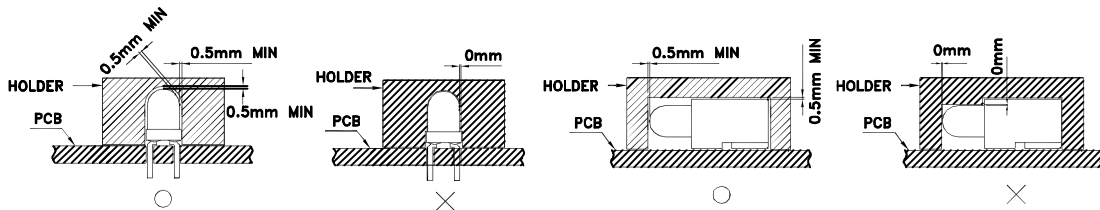
PRECAUTIONS

- 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.

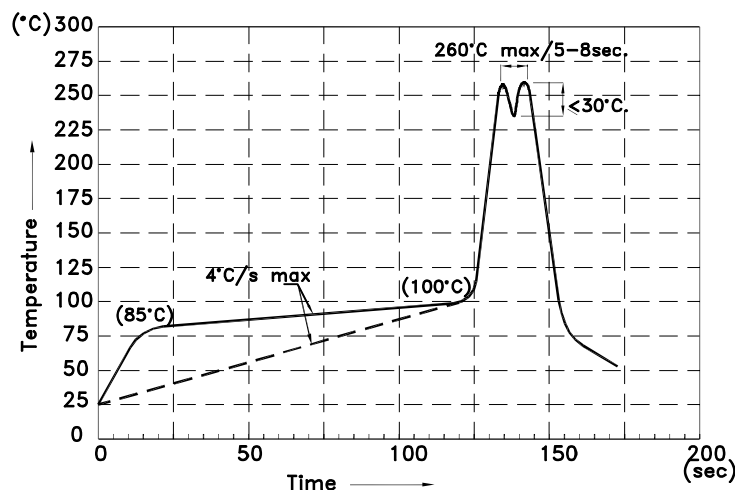


”○” Correct mounting method ”×” Incorrect mounting method

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



- The tip of the soldering iron should never touch the lens epoxy.
- Through-hole LEDs are incompatible with reflow soldering.
- 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.
- Recommended Wave Soldering Profile for Kingbright Thru-Hole Products



Notes:

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