

Part Number: WP93A8EWP/IDTG0L

HIGH EFFICIENCY RED

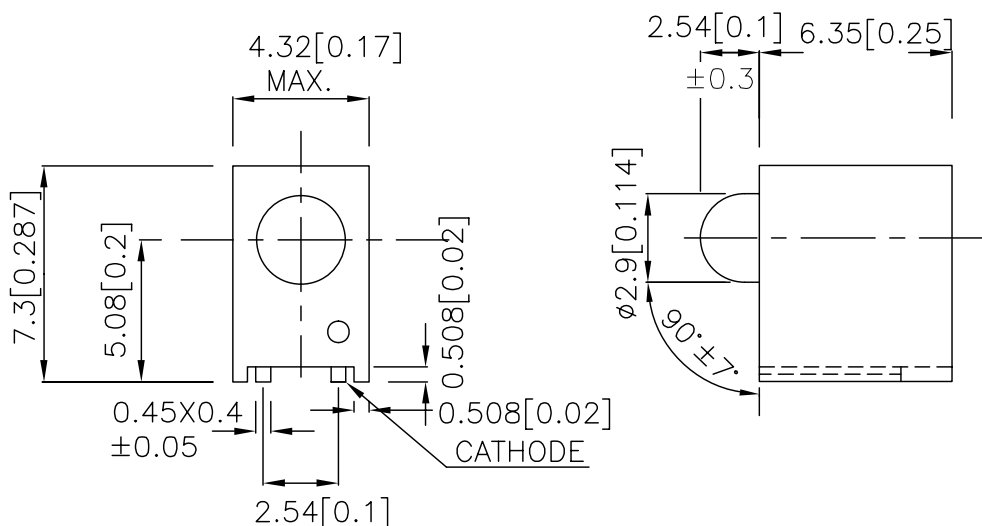
### Features

- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY LIFE MEASURED IN YEARS.
- HOUSING MATERIAL: PPA
- PACKAGE : 500PCS / REEL.
- 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. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 10mA		Viewing Angle [1]
			Min.	Typ.	2 θ 1/2
WP93A8EWP/IDTG0L	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	12	25	60°

Notes:

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

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red	627		nm	I <sub>F</sub> =20mA
λ <sub>D</sub> [1]	Dominant Wavelength	High Efficiency Red	625		nm	I <sub>F</sub> =20mA
Δλ <sub>1/2</sub>	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	High Efficiency Red	2.0	2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	High Efficiency Red		10	uA	V <sub>R</sub> = 5V

Notes:

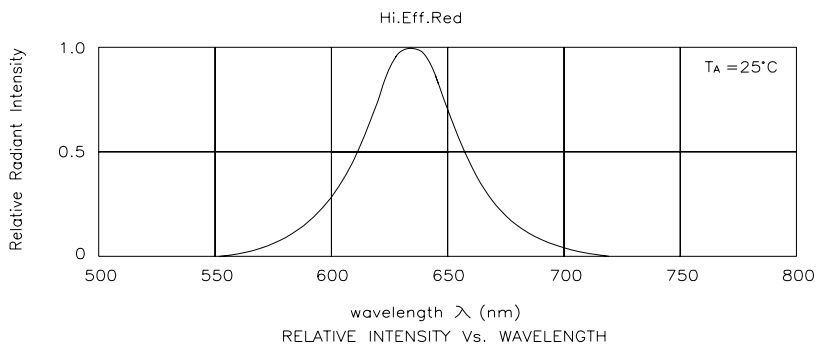
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	160	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

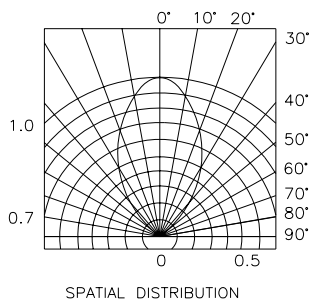
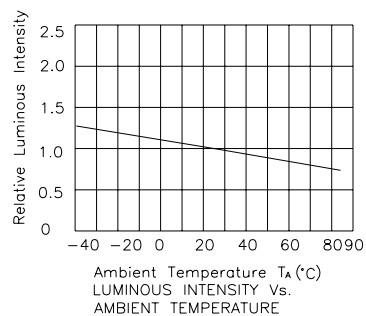
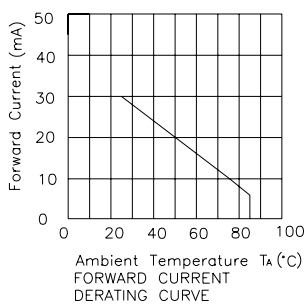
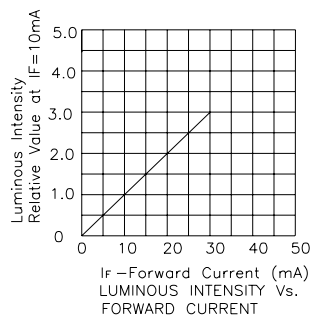
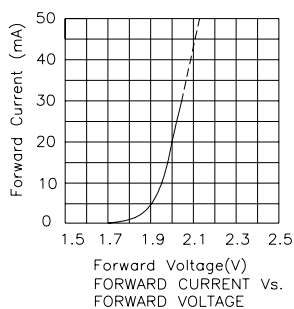
Note:

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



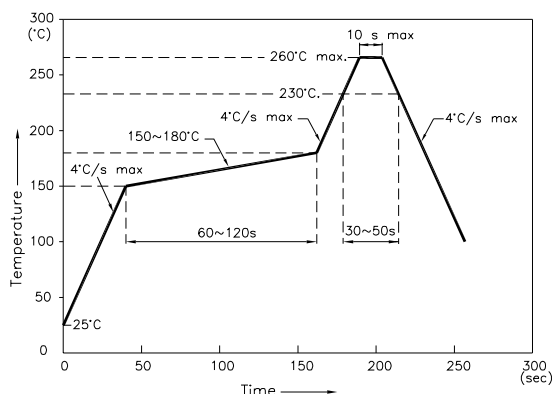
## High Efficiency Red

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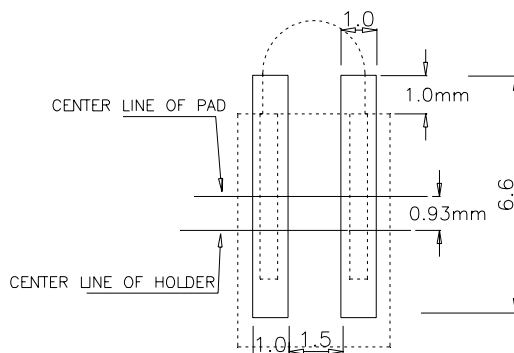
Reflow Soldering Profile For Lead-free SMT Process.



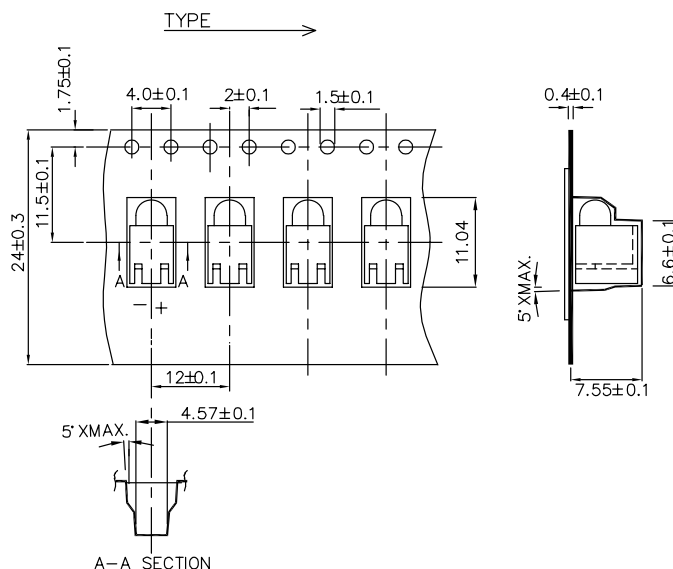
NOTES:

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; Tolerance: ±0.1)

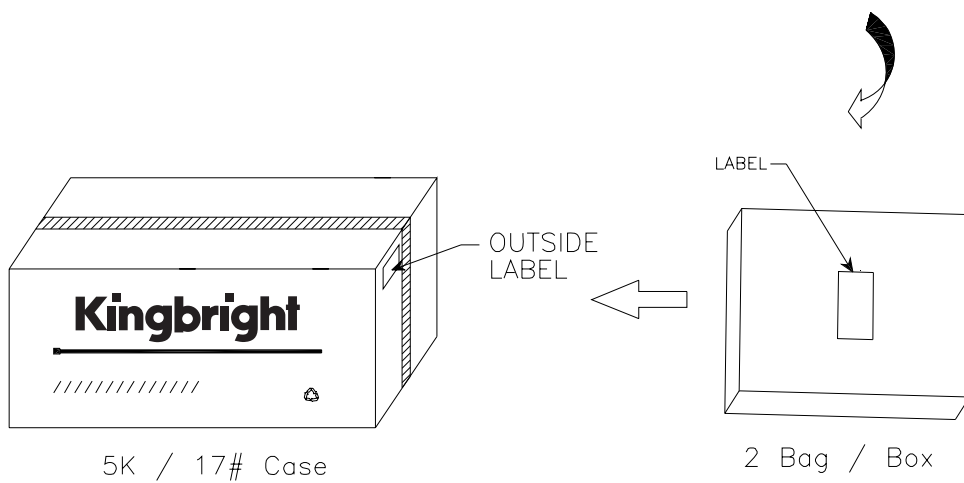
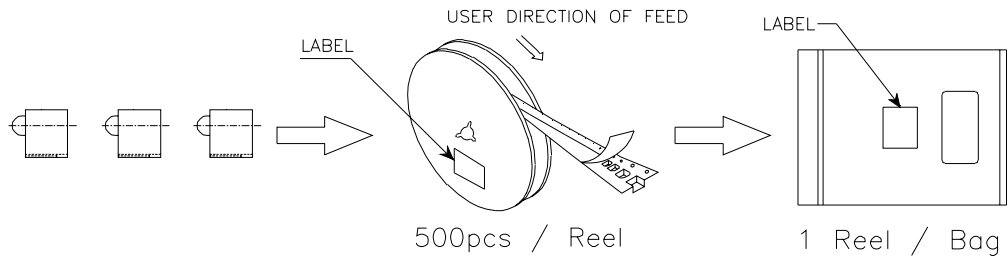



### Tape Specifications (Units : mm)



## PACKING & LABEL SPECIFICATIONS

WP93A8EWP/IDTG0L



<b>Kingbright</b>				
Q.C.	<table border="1"> <tr> <td style="text-align: center;">QC</td> </tr> <tr> <td style="text-align: center;">xxx xx. xxx</td> </tr> <tr> <td style="text-align: center;">PASSED</td> </tr> </table>	QC	xxx xx. xxx	PASSED
QC				
xxx xx. xxx				
PASSED				
TYPE NO : WP93A8EWPxxx				
QUANTITY : 500 pcs				
S/N : xxx	CODE: xxx			
LOT NO 				
MADE IN CHINA	RoHS Compliant			