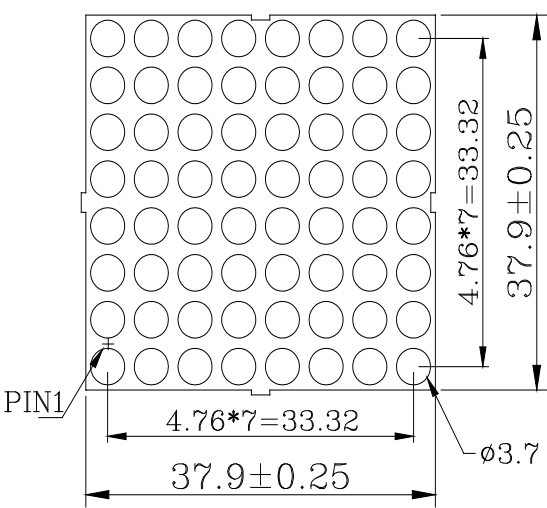


**SPECIFICATIONS** **CDMA8814R2G2WB**

### OUTLINES DIMENSIONS



PIN1

$4.76*7=33.32$

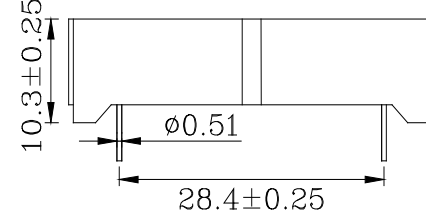
$37.9\pm 0.25$

$\phi 3.7$

COL

1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
2	3	4	5	6	7	8	
3	4	5	6	7	8		
4	5	6	7	8			
5	6	7	8				
6	7	8					
7	8						
8							

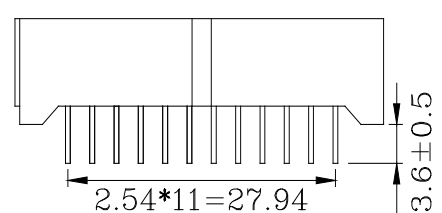
ROW



$10.3\pm 0.25$

$\phi 0.51$

$28.4\pm 0.25$

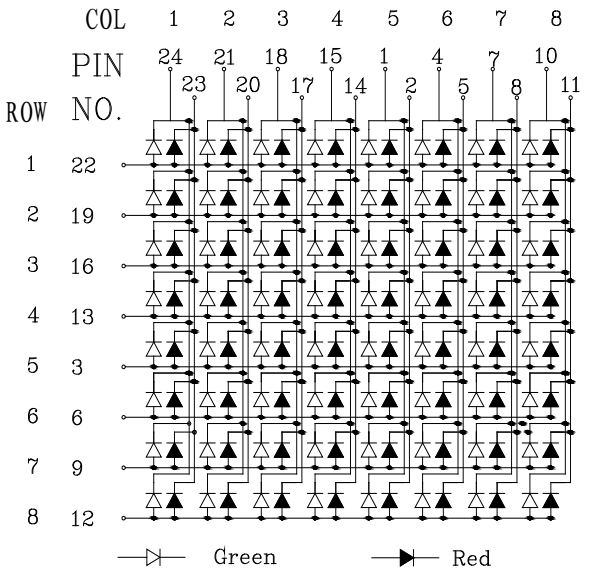


$2.54*11=27.94$

$3.6\pm 0.5$

Notes:

- All Dimensions are in millimeters (inches).
- Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
- Specifications are subject to change without notice.



COL 1 2 3 4 5 6 7 8

PIN NO. 24 21 18 15 1 4 7 10

ROW NO. 1 2 3 4 5 6 7 8

23 20 17 14 2 5 8 11

22 19 16 13 3 6 9 12

Green Red

Part Number	Chip Material	Color of Emission	Lens Type	Description
CDMA8814R2G2WB	InGaAlP	Red	White Segment/ Black Face	Common Anode
	InGaAlP	Green		



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**ABSOLUTE MAXIMUM RATINGS - RED (InGaAlP)**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	80	mW
Pulse Forward Current	IFP	120	mA
Continuous Forward Current	IF	20	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-25~+85	°C
Storage Temperature Range	TSTG	-35~+85	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10. Soldering Condition: 260 °C/ 5sec			

**OPTICAL-ELECTRICAL CHARACTERISTICS - RED (InGaAlP)**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 10mA	6145	10383	-	ucd
Forward Voltage	VF	IF = 20mA	-	1.8	2.2	V
Reverse Leakage Current	IR	VR = 5V	-	-	20	µA
Peak Wavelength	λP	IF = 20mA	635	-	650	nm
Dominant Wavelength	λD	IF = 20mA	-	630	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	20	-	nm



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**ABSOLUTE MAXIMUM RATINGS - GREEN (InGaAlP)**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	80	mW
Pulse Forward Current	IFP	120	mA
Continuous Forward Current	IF	20	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-25~+85	°C
Storage Temperature Range	TSTG	-35~+85	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec			

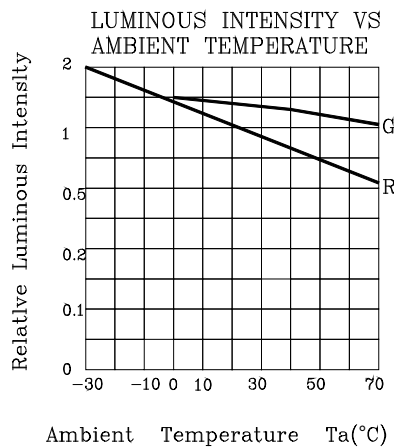
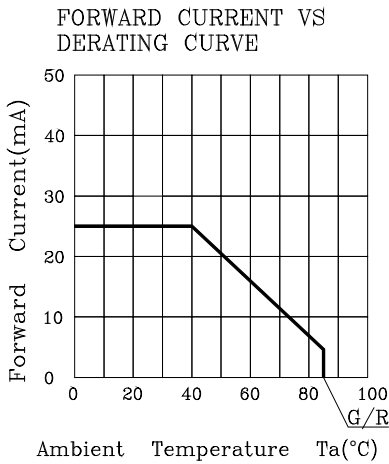
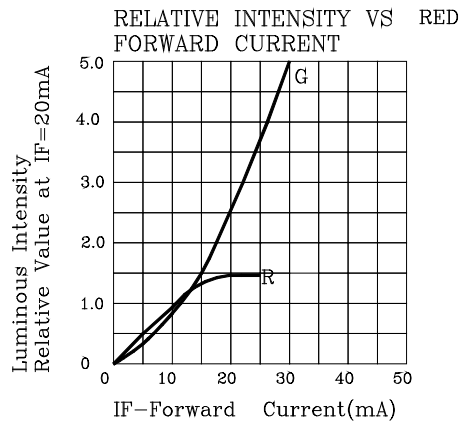
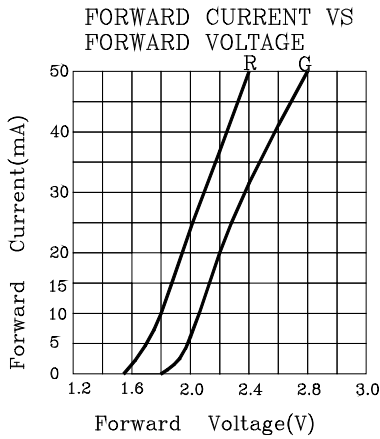
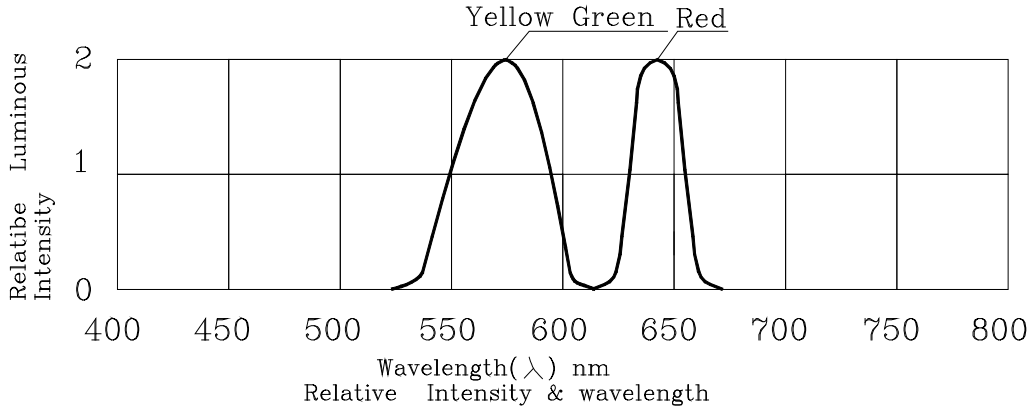
**OPTICAL-ELECTRICAL CHARACTERISTICS - GREEN (InGaAlP)**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 10mA	6145	10383	-	ucd
Forward Voltage	VF	IF = 20mA	-	2.1	2.5	V
Reverse Leakage Current	IR	VR = 5V	-	-	20	µA
Peak Wavelength	λP	IF = 20mA	568	-	575	nm
Dominant Wavelength	λD	IF = 20mA	-	573	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	20	-	nm



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## OPTICAL CHARACTERISTIC CURVES



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## RECOMMENDED SOLDERING PROFILE

The recommended conditions for soldering are as follows. Because the component is made with epoxy resin, the units are susceptible to heat. Therefore, the preheating and soldering temperatures should be kept as low as possible to avoid damage.

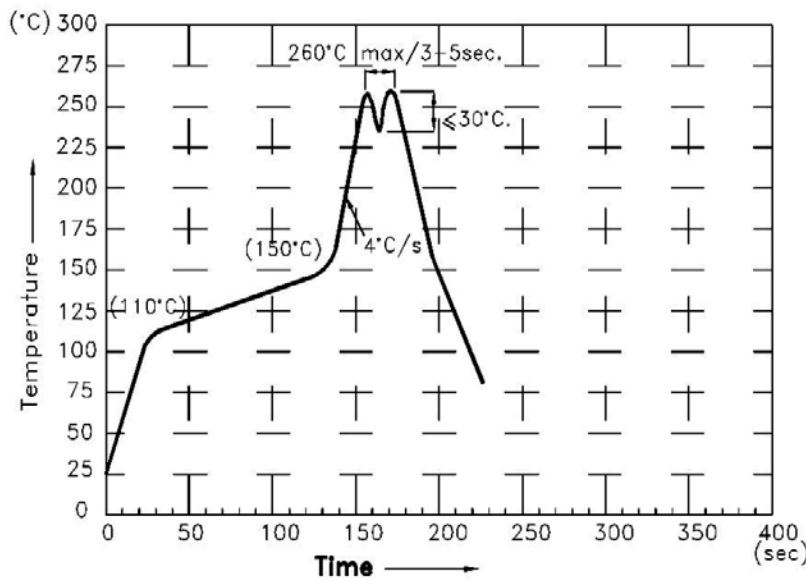
### 1 . Manual Soldering Conditions(with 1.5mm Iron tip )

Iron Tip Temperature: 350°C Max, Time: 3s Max

Position: The iron should be situated at least 2mm away from the root of the leads.

### 2 . Through the Wave Soldering Conditions

Wave Soldering Profile For Lead-free Through-hole LED



### 3 . Soldering General Notes:

- a. Toplight recommend manual soldering to be used only for repair and rework purposes. The soldering iron should not exceed 30W in power. The tip of the soldering iron should not touch the reflector case to avoid heat-damage.
- b. Maintain the pre-heat and peak temperatures with dip units as low as possible and the times as short as is feasible, since the products are susceptible to heat during flow soldering.
- c. After soldering, allow at least three minutes for the component to cool to room temperature before further operations.
- d. If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with Toplight for compatibility.



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