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## DATA SHEET

PART NO. : L-C155JRJGCT-HD

REV : A/2

CUSTOMER'S APPROVAL : \_\_\_\_\_ DCC : \_\_\_\_\_

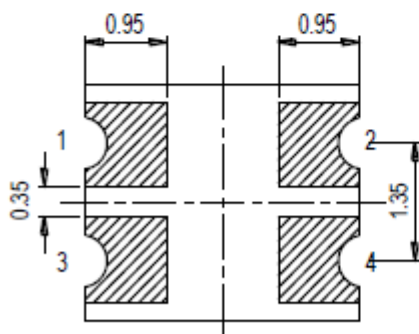
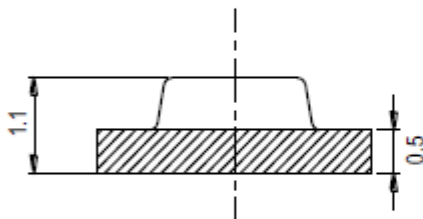
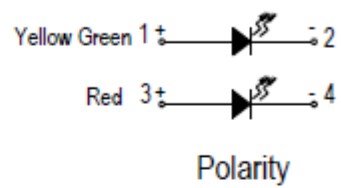
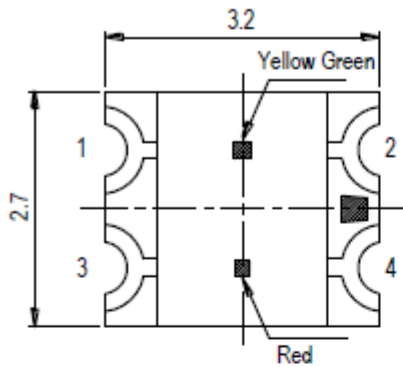
DRAWING NO. : DS-51-18-031

DATE : 2021-11-20

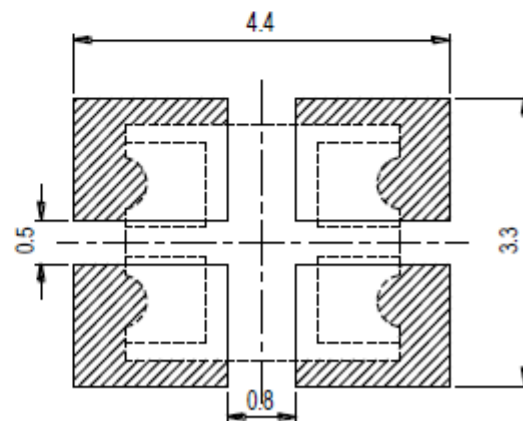
Page : 1

## PACKAGE DIMENSIONS

## Package Dimension



## Recommended Solder Pad



## Note:

Tolerance unless mentioned is  $\pm 0.1$  mm, Unit = mm.



# 3.2\*2.7\*1.1 mm SMD LED

## L-C155JRJGCT-HD

REV:A/2

### FEATURES

- \* 3.2\*2.7\*1.1 mm SMD LED
- \* Top view LED
- \* Compatible with infrared and vapor phase reflow solder process
- \* Wide viewing angle

### CHIP MATERIALS

- \* Dice Material : AlInGaP / AlInGaP
- \* Light Color : Yellow Green & Red
- \* Lens Color : WATER CLEAR

ABSOLUTE MAXIMUM RATING : ( Ta = 25°C )

SYMBOL	PARAMETER	RATING		UNIT
		JR	JG	
PD	Power Dissipation	JR	JG	mW
		60	60	
If	Forward Current	25		mA
Ifp	Peak Forward Current (1/10 duty cycle 0.1ms)	60	60	mA
ESD	Electrostatic Discharge Threshold(HBM)	2000	2000	V
Topr	Operating Temperature Range	-40°C ~85°C		°C
Tstg	Storage Temperature Range	-40°C ~100°C		°C
Tsol	Soldering Temperature	Reflow Soldering 260°C For 10 SEC Hand Soldering 350°C For 3 SEC		

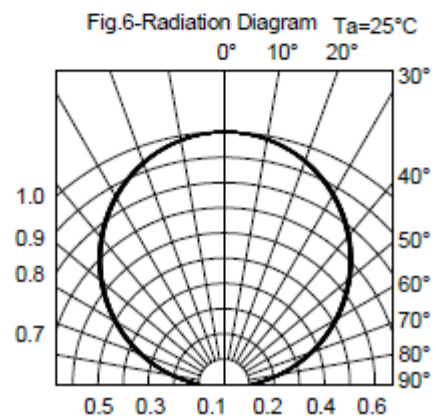
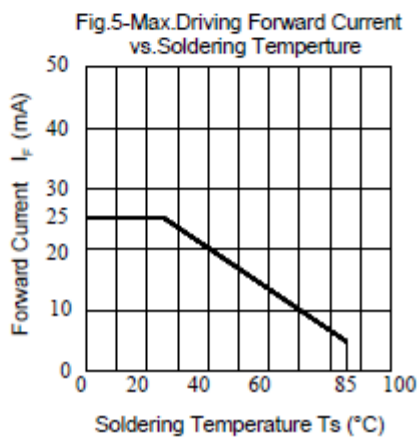
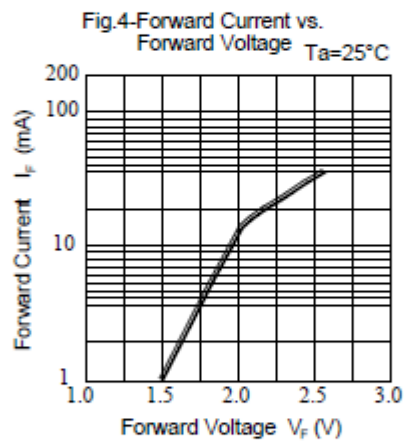
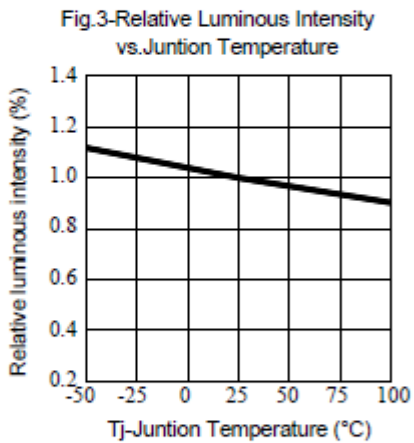
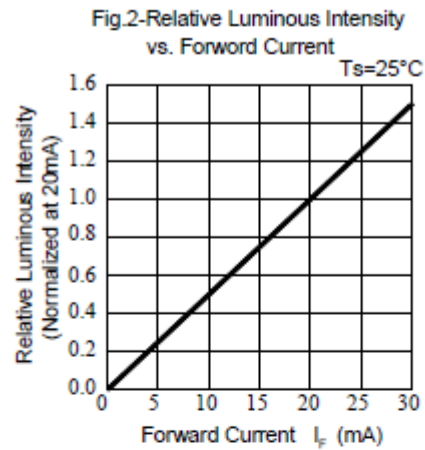
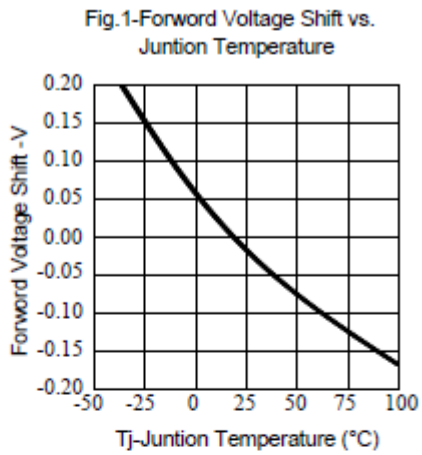
### ELECTRO-OPTICAL CHARACTERISTICS : ( Ta = 25°C )

SYMBOL	PARAMETER	TEST CONDITION	VALUE			UNIT	
			MIN.	TYP.	MAX.		
VF	Forward Voltage	IF = 20mA	JR	1.7	2.0	2.4	V
			JG	1.7	2.0	2.4	
IR	Reverse Current	VR = 5V	--	--	10	µA	
λD	Dominant Wavelength	IF = 20mA	JR	615	624	635	nm
			JG	567.5	570	575.5	
2θ1/2	Half Intensity Angle	IF = 20mA	--	120	--	deg	
Iv	Luminous Intensity	IF = 20mA	JR	90	150	225	mcd
			JG	18	30	45	

Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

Typical Electro-Optical Characteristics Curve(Chip code: G2/R6)





3.2\*2.7\*1.1 mm SMD LED

L-C155JRJGCT-HD

REV:A/2

## Bin Code Description

### Bin Code Description

#### G2: Bin Range of Luminous Intensity

Bin Code	Min.	Max.	Unit	Condition
AM1	18.0	22.5	mcd	I <sub>F</sub> =20mA
AM2	22.5	28.5		
AN1	28.5	36.0		
AN2	36.0	45.0		

#### R6: Bin Range of Luminous Intensity

Bin Code	Min.	Max.	Unit	Condition
QA	90.0	140.0	mcd	I <sub>F</sub> =20mA
RA	140.0	225.0		

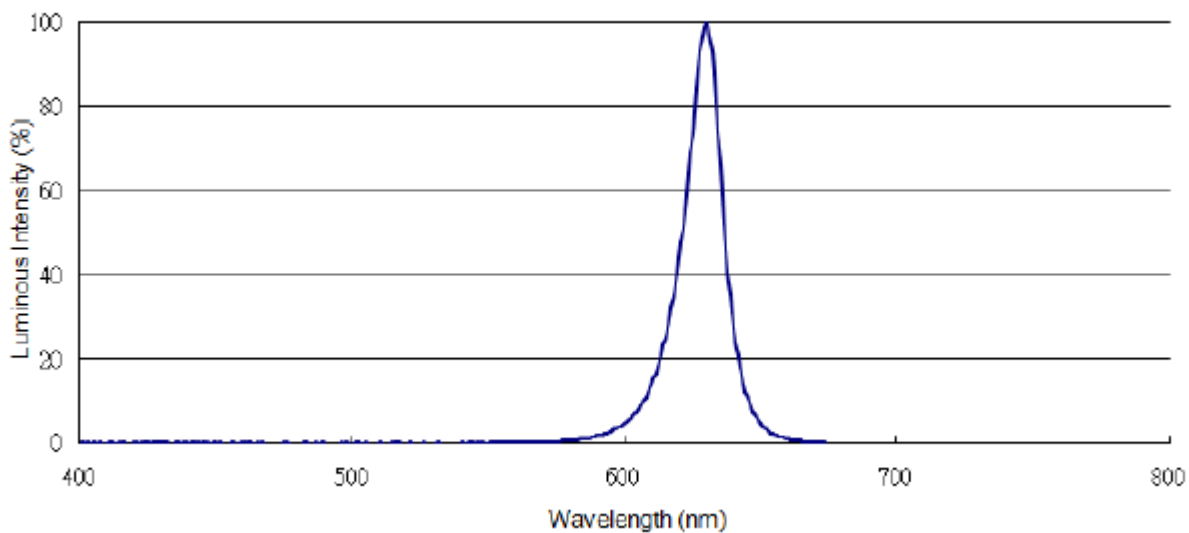
Note:  
Tolerance of Luminous Intensity: ±10%.

#### G2: Bin Range of Dominant Wavelength

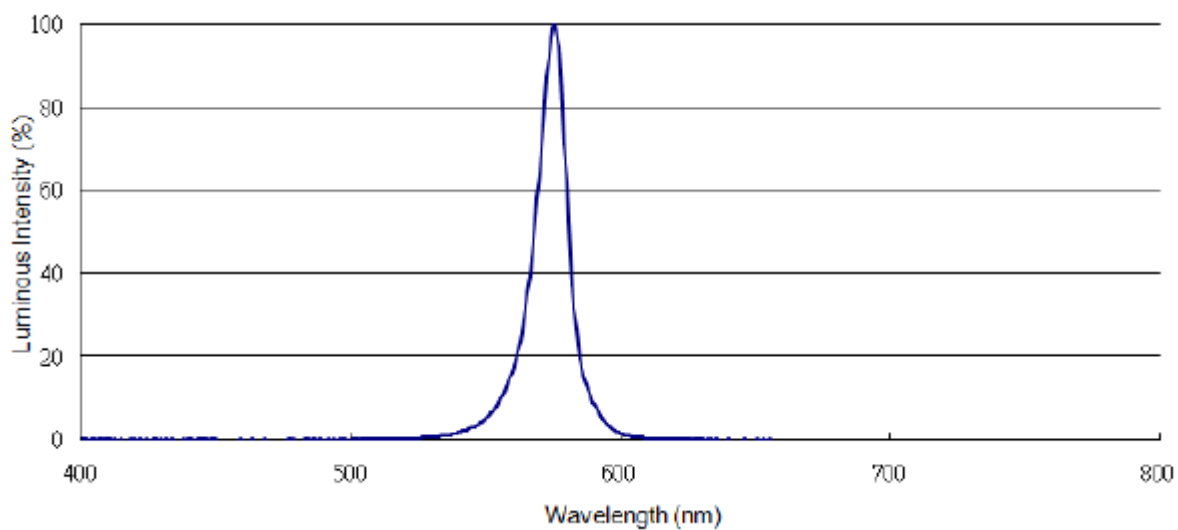
Bin Code	Min.	Max.	Unit	Condition
AG15	567.5	569.5	nm	I <sub>F</sub> =20mA
AG16	569.5	571.5		
AG17	571.5	573.5		
AG18	573.5	575.5		

Note:  
Tolerance of Dominant Wavelength: ±1nm

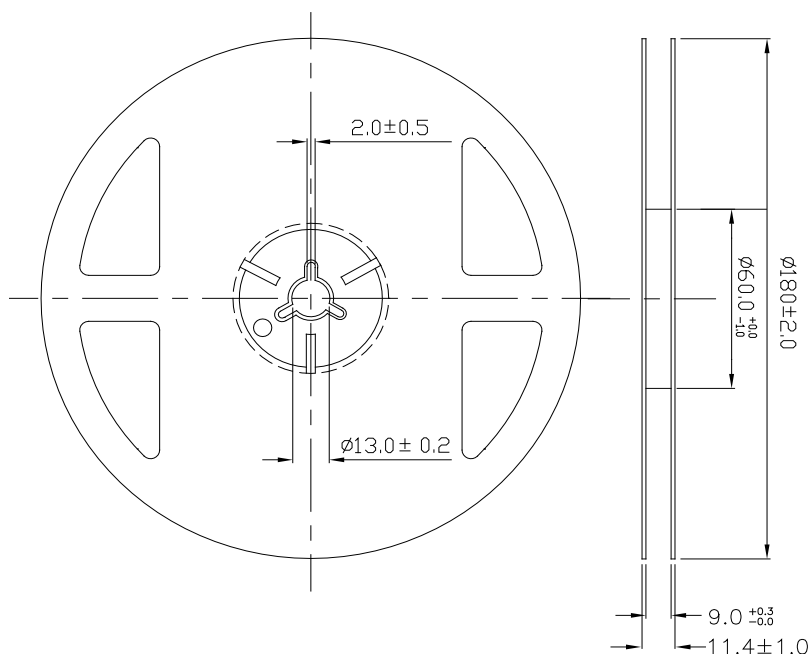
Spectrum Distribution(JR)



Spectrum Distribution(JG)

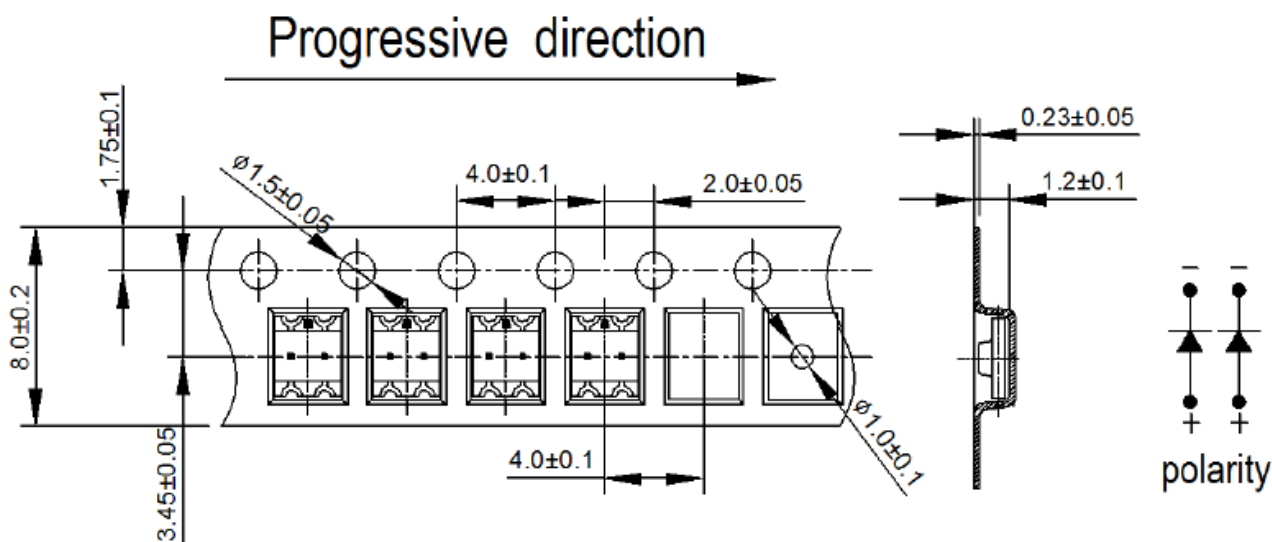


Reel Dimensions



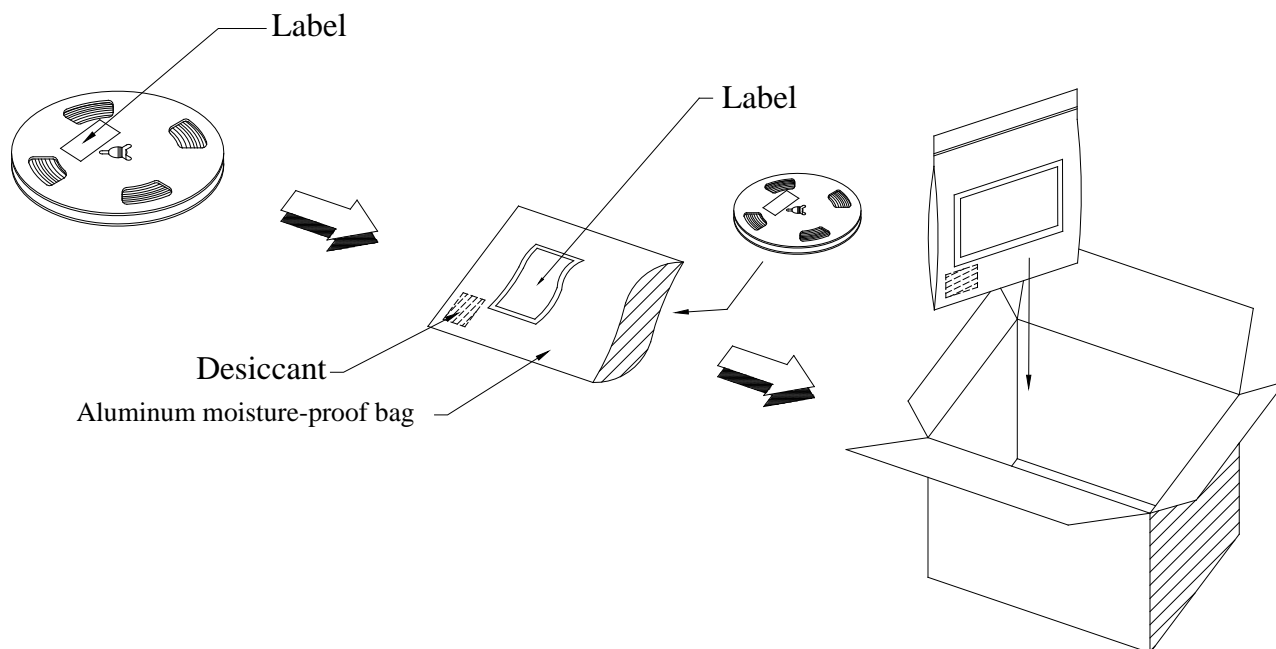
Note:  
Tolerances unless mentioned  $\pm 0.1$  mm, Unit = mm

Carrier Tape Dimensions: Loaded Quantity 2000 pcs Per Reel



Note:  
1. Tolerance unless mentioned is  $\pm 0.1$  mm, Unit = mm.  
2. Minimum packing amount is 1000 pcs per reel.

Moisture Resistant Packing Process



Reliability Test Items and Conditions

The reliability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Re
1	Reflow Soldering	Temp. : 260°C/10sec.	6 Min.	22 PCS.	0/1
2	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	300 Cycles	22 PCS.	0/1
3	Temperature Cycle	H : +100°C 15min ∫ 5 min L : -40°C 15min	300 Cycles	22 PCS.	0/1
4	High Temperature/Humidity Reverse Bias	Ta=85°C,85%RH	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Ta=-40°C	1000 Hrs.	22 PCS.	0/1
6	High Temperature Storage	Ta=100°C	1000 Hrs.	22 PCS.	0/1
7	DC Operation Life	Ta=25°C, If = 20 mA	1000 Hrs.	22 PCS.	0/1



## Precautions for Use

### 1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

### 2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.

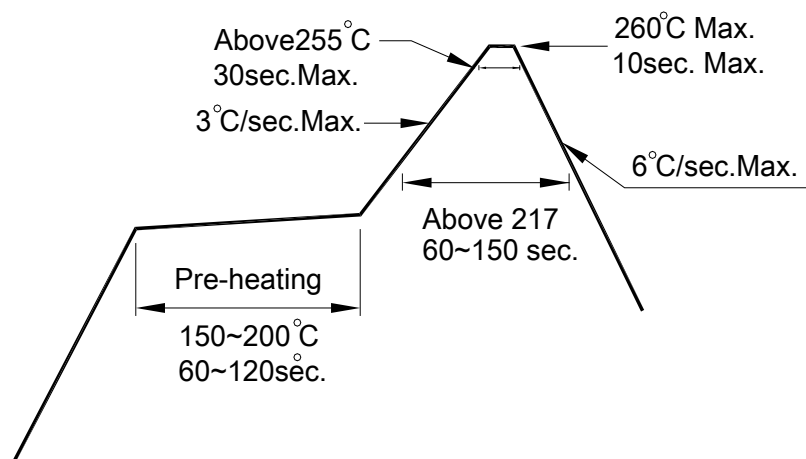
2.3 After opening the package: The LED's floor life is 1 year under 30°C or less and 60% RH or less. If unused LEDs remain, it should be stored in moisture proof packages.

2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment: 60±5°C for 24 hours.

### 3. Soldering Condition

#### 3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

3.4 After soldering, do not warp the circuit board.

### 4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

### 5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.