





## Absolute Maximum Ratings at Ta=25

Parameter	MAX	Unit
Power Dissipation	72	mW
Peak Forward Current <sup>*3</sup>	60	mA
Continuous Forward Current	30	mA
Reverse Voltage	5	V
Electrostatic Discharge(HBM) <sup>*5</sup>	2000	V
Moisture Sensitivity Level <sup>*1</sup>	3	
Operating Temperature Range	-40°C to + 85°C	
Storage Temperature Range	-40°C to + 85°C	
Junction Temperature	95	
IR Reflow Temperature <sup>*4</sup>	260 for 10 Seconds MAX.	

### 1. Storage:

- (1). Storage requirements before vacuum bag opened: Temperature<30 , Humidity<65%RH;
- (2). Check air leakage and vacuum bag damage before opened. If there is any issue found, check the humidity indicator card immediately after bag opened:
  - a. If color changes on “10% circle” of the humidity indicator card only and not the circles of 20% and above, components can be used without additional handling;
  - b. If color changes on both 10% and 20% circles but not the circles of 30% and above, components must be dehumidified according to the conditions of bullet (5);
  - c. If color changes on 10%, 20%, and 30% circle or above, the product should be returned to the supplier for high temperature dehumidification;
- (3). After bag opened, manual soldering or reflow process must follow the following requirements:
  - a. Complete soldering / reflow within 168 hours;
  - b. Requirements of working environment: Temperature<30 , Humidity<60%RH;
- (4). If the working condition is outside (3)a or (3)b requirement, the components must be dehumidified according to the conditions of bullet (5);
- (5). Low temperature dehumidification: temperature 60±5 24 hours;
- (6). Shelf life: 1 year. If it's over 1 year from the production date on the package label, the components must be dehumidified according to the condition of bullet (5). If customer is unable to dehumidify, return components to LIGHT for dehumidification.

### 2. Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED if necessary.

### 3. Peak Forward Current:

Condition for is IFP pulse

### 4. IR Reflow Temperature:

It is the Plate Temperature.

### 5. Caution in ESD:

Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

## Electrical Optical Characteristics at Ta=25


Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	
Luminous Intensity	I <sub>v</sub>	1FM	4	---	6	mcd	I <sub>F</sub> =5mA (Note 1)
		1FN	6	---	8		
		A00	8	---	12		
		B00	12	---	18		
		C00	18	---	28		
	1/2	---	140	---	Deg.	(Note 2)	
						I <sub>F</sub> =5mA	
		B10	565	---	567.5	nm	I <sub>F</sub> =5mA (Note 3)
		B20	567.5	---	570		
		C10	570	---	572.5		
		C20	572.5	---	575		
Spectral Line Half-Width		---	15	---	nm	I <sub>F</sub> =5mA	
Forward Voltage	V <sub>F</sub>	B1	1.8	---	1.9	V	I <sub>F</sub> =5mA
		B2	1.9	---	2.0		
		C1	2.0	---	2.1		
		C2	2.1	---	2.2		
		D1	2.2	---	2.3		
		D2	2.3	---	2.4		
Reverse Current	I <sub>R</sub>	---	---	10	μA	V <sub>R</sub> =5V	

### Note:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve. Tolerance of Luminous Intensity: ±15%.
- 1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- single wavelength which defines the color of the device. Tolerance of Dominant Wavelength: ±1.0nm.
- Tolerance of Forward Voltage: ±0.1V.



## Label Explanation

<b>LIGHT</b> Light Electronics CO., LTD.		 LOT NO.
MODEL NAME:	_____	
QUANTITY:	_____	
BIN	_____	
PACKING DATE:	_____	
REMARKS:	_____	

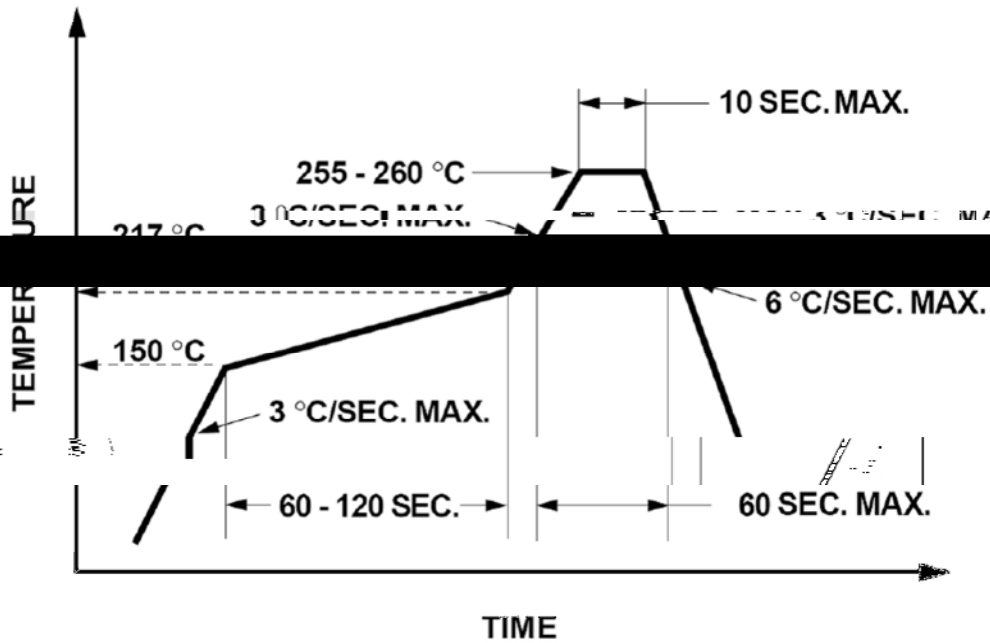
MODEL NAME/	QUANTITY/
BIN./	PACKING DATE/
CUSTOMER P/N/	LOT NO./
REMARKS/	/

## Reel Dimensions

**Note:** Tolerance unless mentioned is  $\pm 0.2\text{mm}$ ; Unit = mm



Reflow Soldering Temperature Profile for Lead-free



1. Reflow soldering should not be done more than two times.
2. When soldering, do not put stress on the LEDs during heating.

**Soldering iron**

1. When hand soldering, the temperature of the iron must less than 300°C for 3 seconds.
2. The hand solder should be done only once.

**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 LEDs will or will not be damaged by repairing.~~

