



MODEL NO: 67-21UBGC/TR8

Device Number : DSE-671-053 REV. 1.0

**TOP LED**

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**Features :**

- P-LCC-2package.
- White package.
- Optical indicator.
- Colorless clear window.
- Ideal for backlight and light pipe application.
- Inter reflector.
- Low (2mA) current operation.
- Wide viewing angle.
- Compitable with automatic placement equipment.
- Suitable for vapor-phase reflow, Infrared Reflow and wave solder processes.
- Available on tape and reel (8mm Tape).

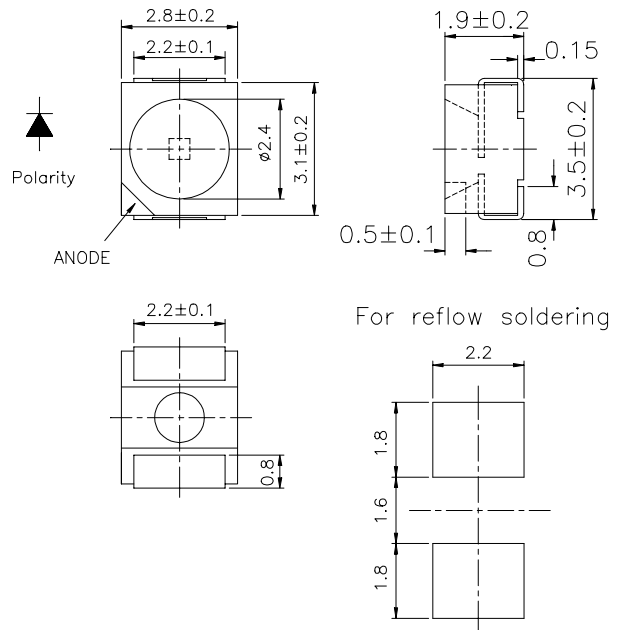
**Description :**

- The 67-21 series is available in soft-orange , green , Blue and yellow ,Due to the package design ,the LED- Has wide viewing angle and optimized light coupling - By inter reflector ,this feature makes the SMT TOP-LED ideal for light pipe application ,The low current requirement makes this device ideal for portable equipment or any other application where power is at a premium.

**Applications :**

- Automotive: backlight in dashboards and switches
- Telecommunication: indicator and backlight in telephone and fax.
- Indicator and backlight for audio and video equipment.
- Indicator and backlight in office and family equipment.
- Flat backlight for LCD's, switches and symbols
- General use.

**Package Dimension :**



**Notes:**

Tolerances Unless Dimension  $\pm 0.1\text{mm}$   
 Angle  $\pm 0.5^\circ$   
 Unit = mm

PART NO	CHIP		Lens Color
	Material	Emitted Color	
67-21UBGC/TR8	InGaN/SiC	Blue Green	Water Clear

B990745 990628

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<http://www.everlight.com>



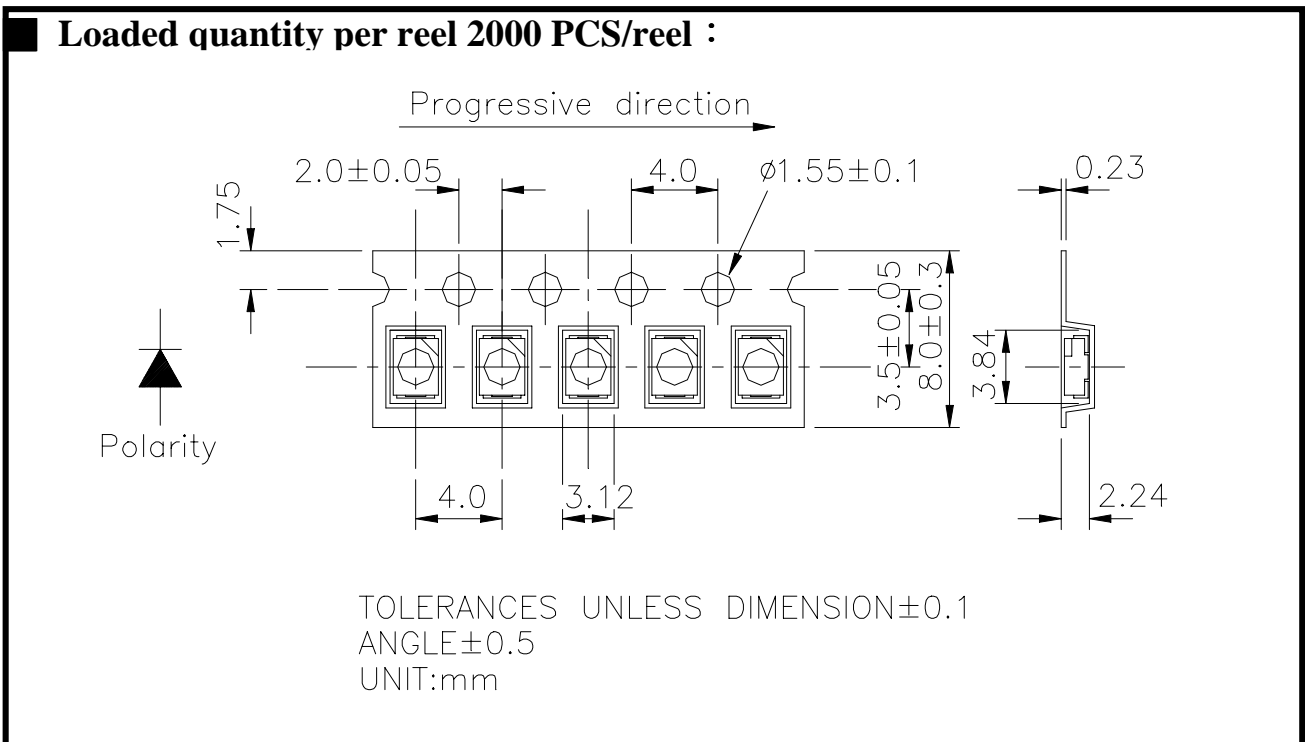
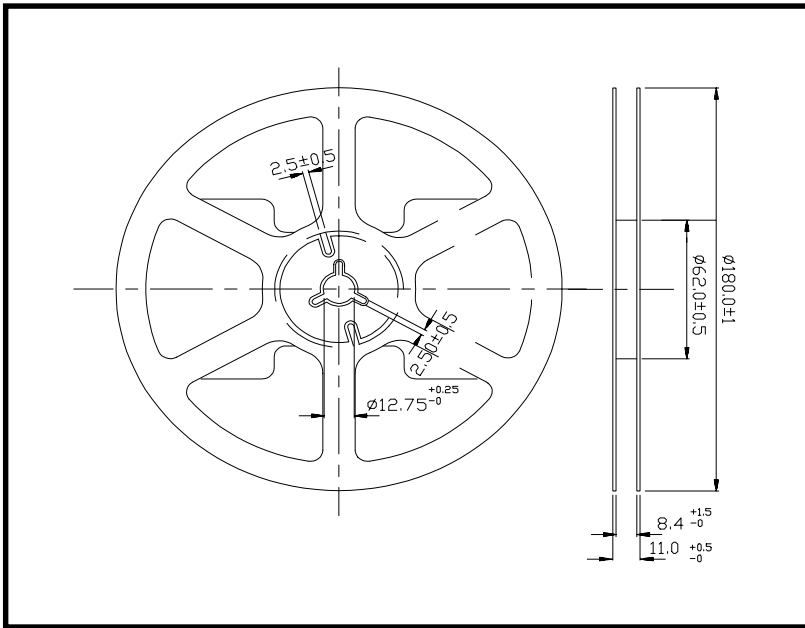
EVERLIGHT ELECTRONICS CO., LTD.

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■ **Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	30	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C
Soldering Temperature	Tsol	260 (for 5 second)	°C
Power Dissipation	Pd	120	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	100	mA

■ **Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	Iv	90	115	-----	mcd	If=20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	If=20mA
Peak Wavelength	λ p	-----	502	-----	nm	If=20mA
Dominant Wavelength	λ d	-----	505	-----	nm	If=20mA
Spectrum Radiation Bandwidth	Δ λ	-----	30	-----	nm	If=20mA
Forward Voltage	Vf	-----	3.5	4.0	V	If=20mA
Reverse Current	Ir	-----	-----	10	μ A	Vr=5V



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**■ Reliability Test Item And Condition**

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 Pcs	0/1
2	Temperature Cycle	H : +85°C 30min ∩ 5 min L : -55°C 30min	50 CYCLE	76 Pcs	0/1
3	Thermal Shock	H : +100°C 5min ∩ 10 sec L : -10°C 5min	50 CYCLE	76 Pcs	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 Pcs	0/1
5	High Temperature Storage	TEMP : -55°C	1000 HRS	76 Pcs	0/1
6	DC Operating Life	If = 20 mA	1000 HRS	76 Pcs	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 Pcs	0/1

Products are evaluated according to the above standard reliability criteria.

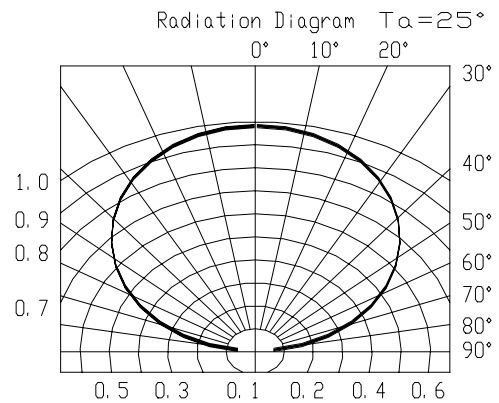
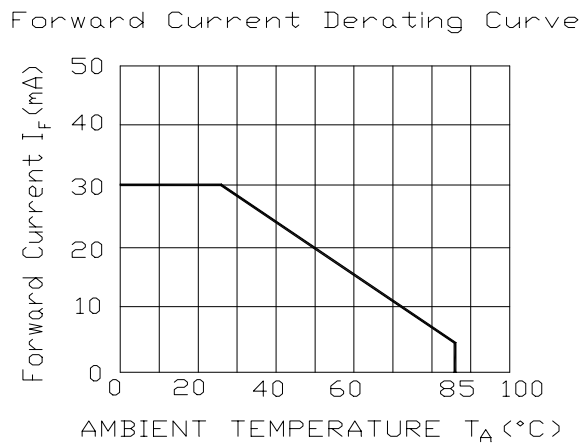
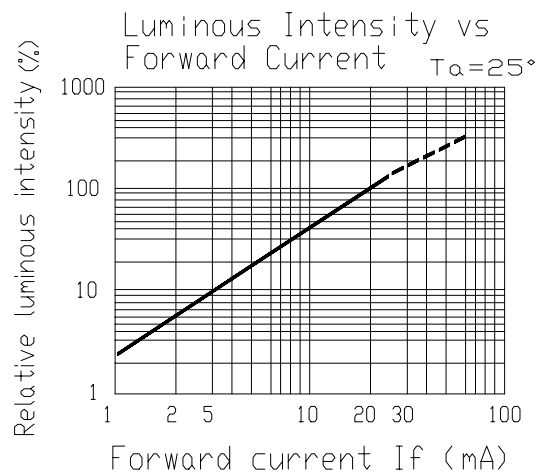
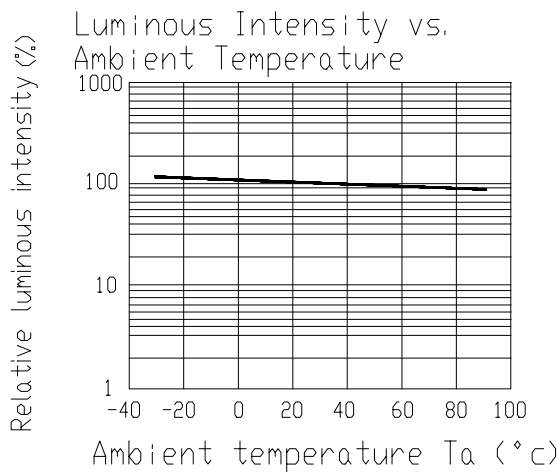
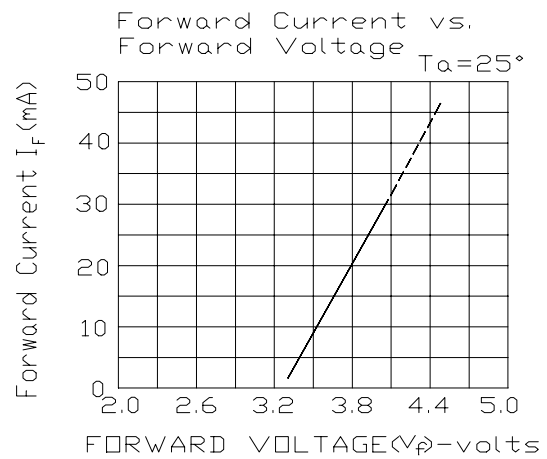
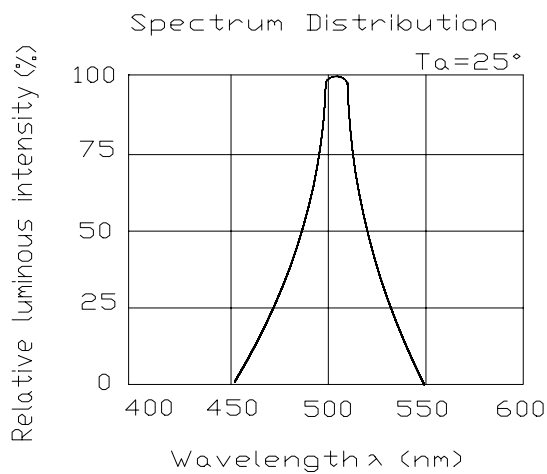


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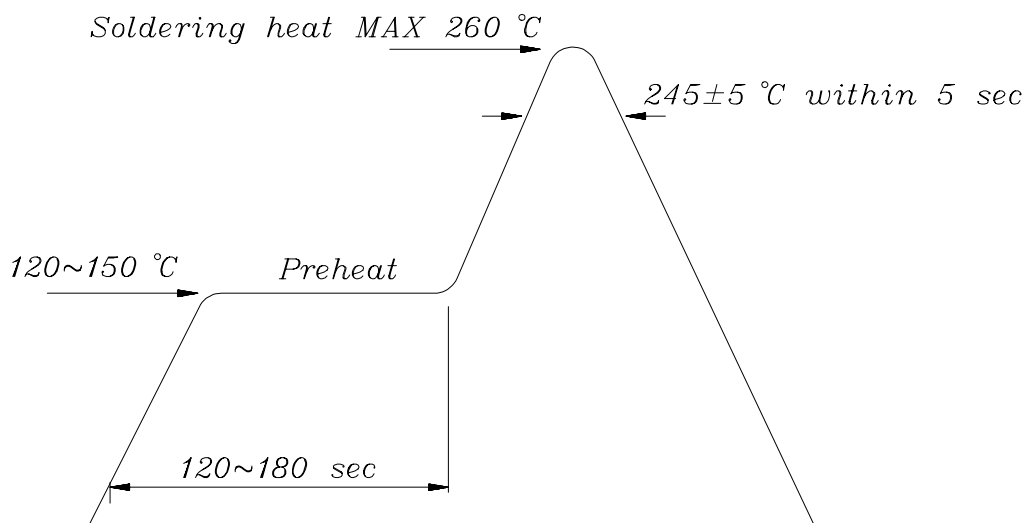
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### Typical Electro-Optical Characteristic Curves



MODEL NO: 67-21UBGC/TR8Device Number : DSE-671-053 REV. 1.0**TOP LED**ECN : ..... Page: 6/7**■ Soldering heat reliability ( DIP )**

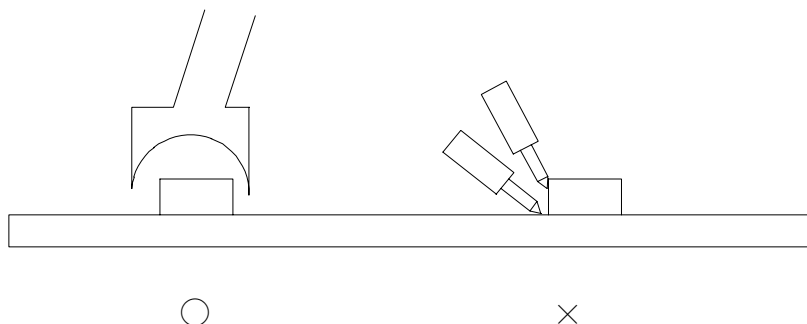
Please refer to the following figure :

**■ Soldering Iron**

Basic spec is  $\leq 5$  sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of Iron should be smaller than 15 W , and temperature should be controllable. Surface temperature of the device should be under 230 °C .

**■ Rework**

1. Customer must finish rework within 5 sec under 260°C .
2. The head of iron can not touch copper foil.
3. Twin-head type is preferred.





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■ Reflow Temp / Time :

