

SAMPLE APPROVAL SHEET

DESCRIPTIONS:

- 1.6x0.8x0.43mm SMD LED
- Emitting Color:Green
- Lens Color: Water Clear

CUSTOMER: _____

XINYI P/N:CT0603UG

CUSTOMER P/N: _____

CUSTOMER APPROVED SIGNATURES

APPROVRD BY	CHECKED BY

广西欣亿光电科技有限公司

PRELIMINARY SPEC

1.6x0.8X0.43mm SMD CHIP LED

PART NO: CT0603UG

Green



ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING

ELECTROSTATIC DISCHARGE
SENSITIVE DEVICES

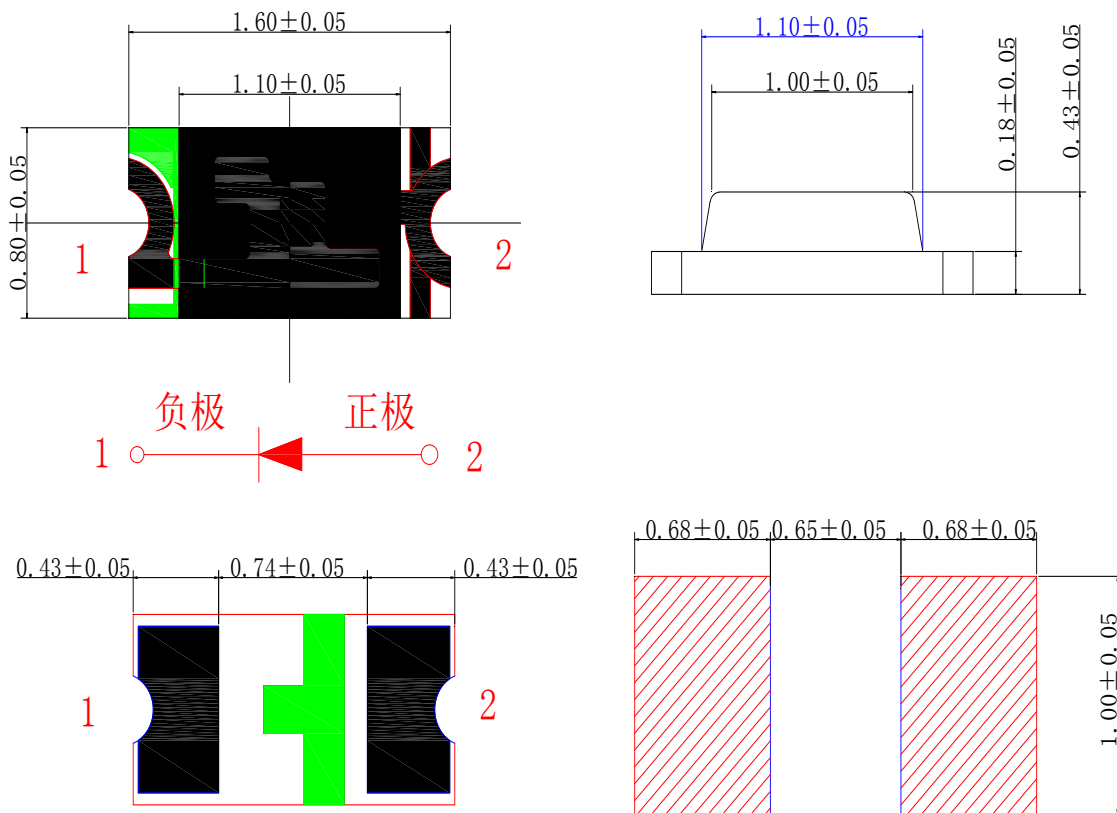
Features

- 1.6mmx0.8mm SMT LED, 0.43mm THICKNESS.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE : 4000PCS / REEL.
- RoHS COMPLIANT.

Applications

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and back-lighting in telephone and fax.
- Flat backlight for LCD switch and symbol.

◆ Package Dimensions



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.15 unless otherwise noted.
3. Specifications are subject to change without notice.

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◆ Device Selection Guide

Part No.	Chip		Lens color
CT0603UG	Material	Emitted color	Water Clear
	(InGaN)	Green	

◆ Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	PD	100	mW
Forward Current	IF	20	mA
Peak Forward Current*1	IFP	100	mA
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-40°C To +85°C	
Storage Temperature	Tstg	-40°C To +85°C	
Reflow Soldering temperature	Tsol	250±5(for10sec)°C	
Manual welding Temperature	Tsol	300±5(for4sec)°C	

Notes:

*1: Pulse width≤0.1ms, Duty cycle≤1/10

2: (Product is highest resistant to 265°C reflow but suggested the highest temperature of 250°C within) 产品最高可耐 265°C回流焊, 但建议最高温度设为 250°C)

◆ Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Min	typ	Max	Unit	Test Conditions
Forward Voltage	VF	2.4	—	3.0	V	IF=5mA
Reverse Current	IR	—	—	10	μA	VR=5V
Chromaticity Coordinates	WLD	—	525	—		IF=5mA
Luminous Intensity	IV	160	—	350	mcd	IF=5mA
Viewing Angle	2θ1/2	—	120	—	Deg.	IF=5mA

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or chromaticity), the typical accuracy of the sorting process is as follows:

1. Chromaticity Coordinates: ±0.01
2. Luminous Intensity: ±15%
3. Forward Voltage: ±0.1V

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◆ Typical Electrical/Optical Characteristics Curves

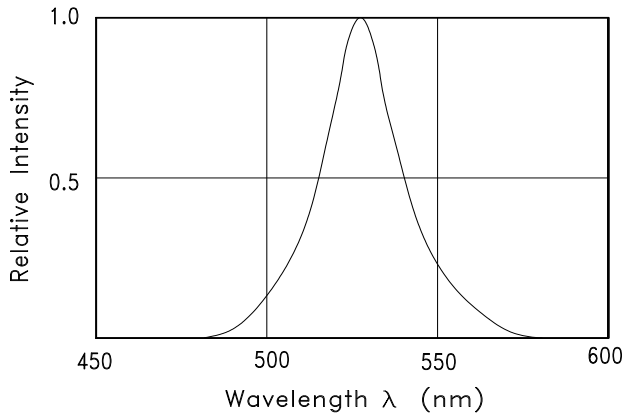


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

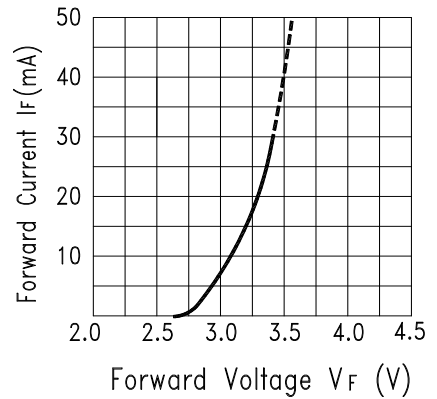


Fig.2 Forward Current vs. Forward Voltage

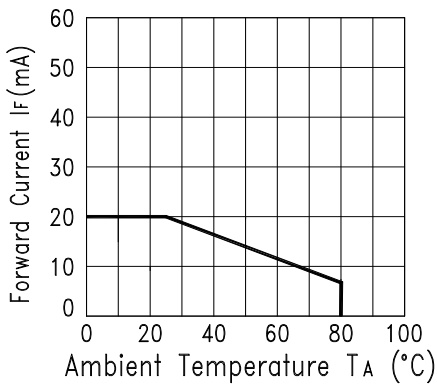


Fig.3 Forward Current Derating Curve

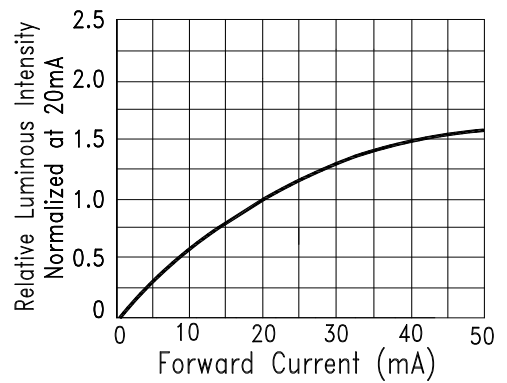


Fig.4 Relative Luminous Intensity vs. Forward Current

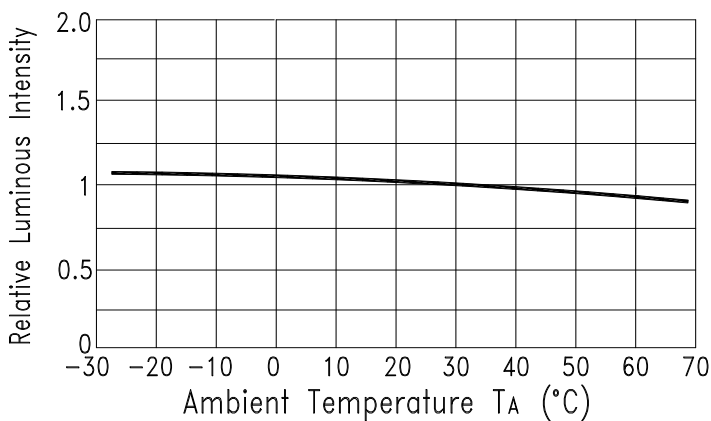


Fig.5 Luminous Intensity vs. Ambient Temperature

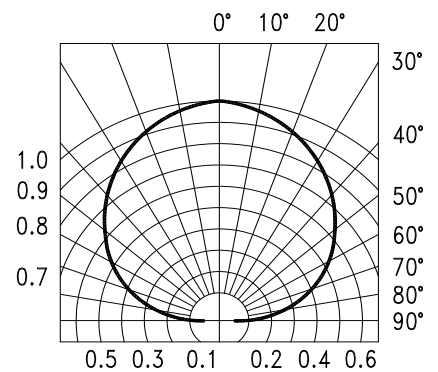
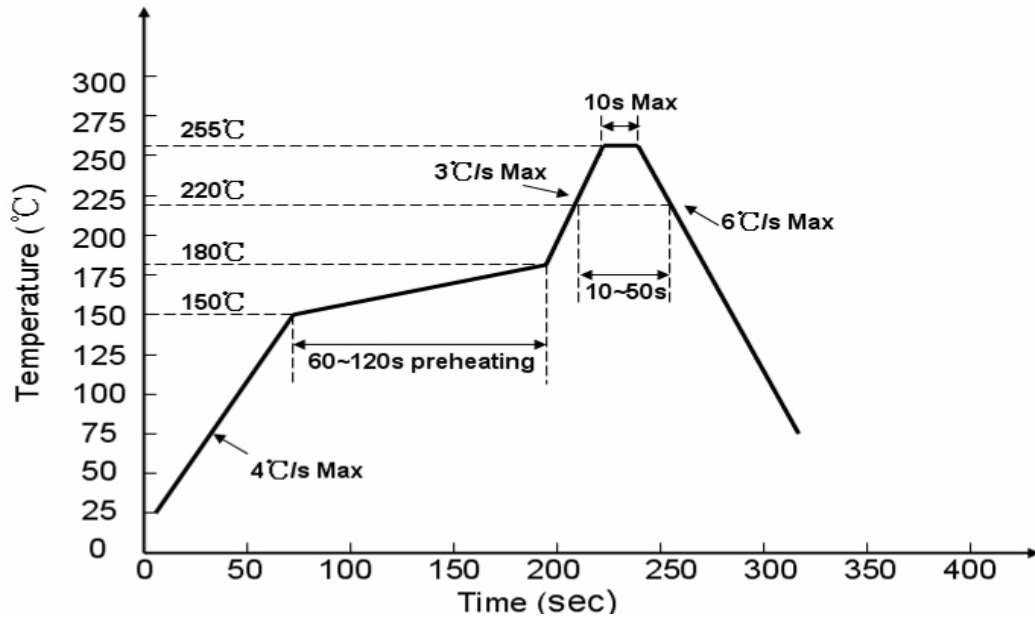


Fig.6 Spatial Distribution

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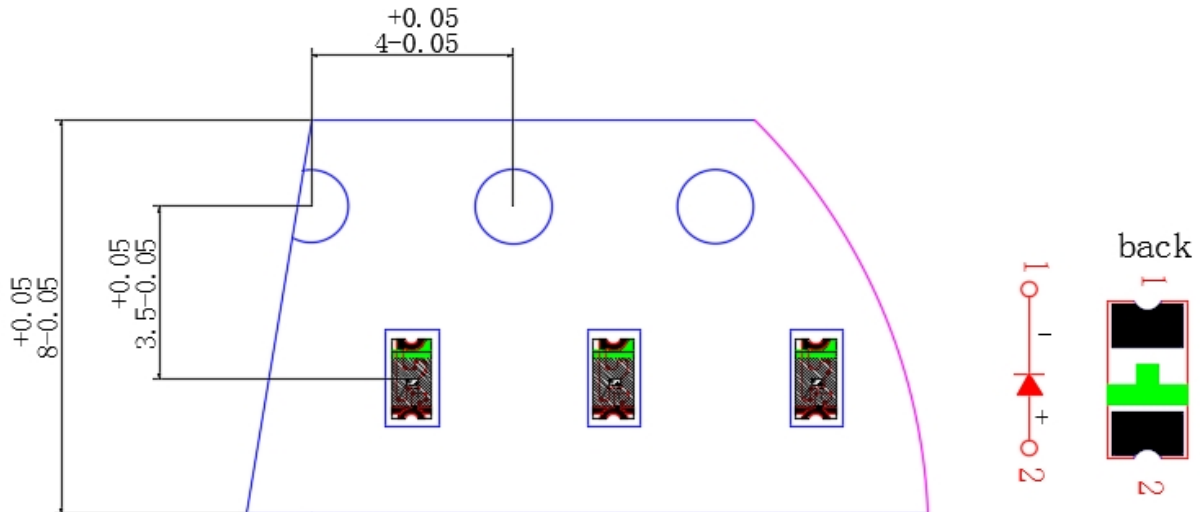
◆ Soldering Profile



Lead process

◆ Tape specifications

(Units:mm)



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◆ VF Rank

Rank	VF		Condition
	MIN	MAX	
2.5-2.6	2.5	2.6	IF=5mA
2.6-2.7	2.6	2.7	
2.7-2.8	2.7	2.8	
2.8-2.9	2.8	2.9	
2.9-3.0	2.9	3.0	

Tolerance:±0.05V

◆ IV Rank

Rank	IV		Condition
	MIN	MAX	
150-200	150	200	IF=5mA
200-250	200	250	
250-300	250	300	
300-350	300	350	

Tolerance:±15%

◆ X Y Rank

Rank	WLD		Condition
	MIN	MAX	
510-515	510	515	IF=5mA
515-520	515	520	
520-525	520	525	
525-530	525	530	
530-535	530	535	
535-540	535	540	

Tolerance:±1nm

◆ Label Explanation :

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XD-:Customer Name↵
VF:Forward Voltage ↵
IV:Luminous intensity↵
WLD:Dom. Wavelength↵
LOT NO:Lot Number↵
QTY:Quantity↵
DATE: Production Date↵

◆ CAUTIONS:

1.Storage

- In order to avoid the absorption of moisture, it is recommended to store in the dry box (or desiccator) with a desiccant. Otherwise, to store them in the following environment is recommended. Temperature: 5°C~30°C Humidity: 60%HR max.

- Attention after opened

However LED is corresponded SMD, when LED be soldered dip, interfacial separation may affect The light transmission efficiency, causing the light intensity to drop. Attention in followed. a. After opened and mounted, the soldering shall be quickly. b. Keeping of a fraction Temperature: 5°C~40°C Humidity: less than 30%

- In case or more than 1 week passed after opening or change color of indicator on desiccant components shall be dried 10-12hr. at 60°C±3°C.

2.ESD (Electrostatic Discharge)

Static Electricity or power surge will damage the LED.

The following procedures may decrease the possibility of ESD damage.

- All production machinery and test instruments must be electrically grounded.
- Use a conductive wrist band or anti-electrostatic glove when handling these LEDs.
- Maintain a humidity level of 50% or higher in production areas.
- Use anti-static packaging for transport and storage.