SAMPLE APPROVAL SHEET

DESCRIPTIONS：

- •1.6x0.8x0.58mm SMD LED
- •Emitting Color: YELLOW
- •Lens Color:Water Clear

CUSTOMER:_____

MASON P/N:KGK-1608UYC/S530-A3-4T

CUSTOMER P/N:_____

CUSTOMER APPROVED SIGNATURES

APPROVRD BY	CHECKED BY

KGKLIGHT

PRELIMINARY SPEC

1.6x0.8X0.58mm SMD CHIP LED

PART NO: KGK-1608UYC/S530-A3-4T

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
LECTROSTATIC ISCHARGE
SENSITIVE DEVICES

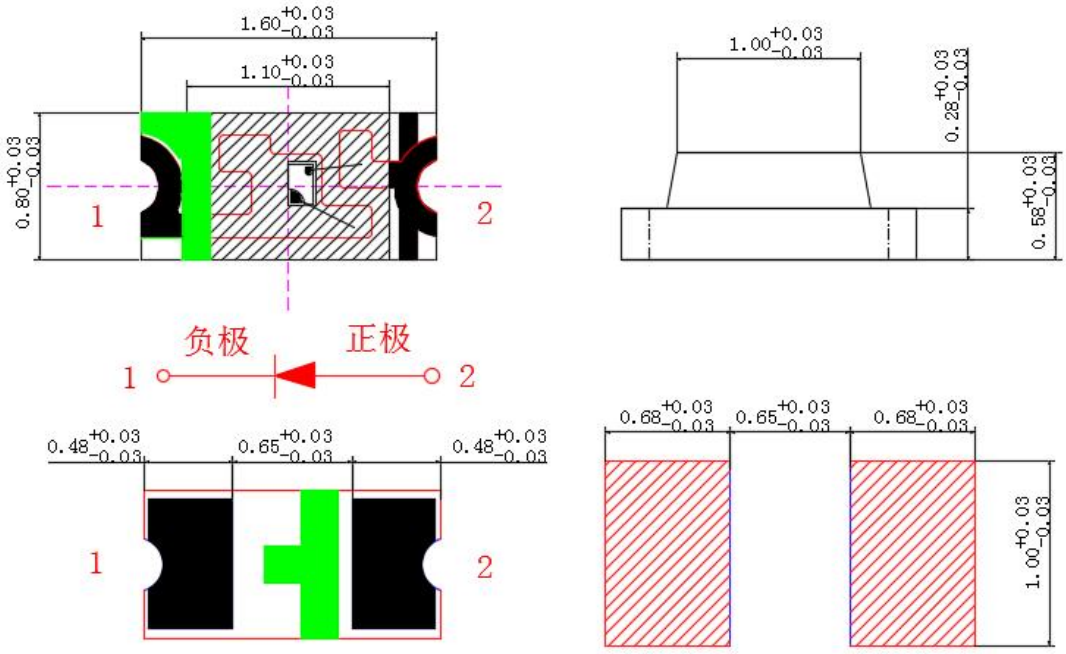
Features

- 1.6mmx0.8mm SMT LED, 0.58m 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.

◆ Device Selection Guide

Part No.	Chip		Lens color
C0603YE	Material	Emitted color	Water Clear
	(AlGaInP)	YELLOW	

◆ Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	PD	60	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	

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

◆ Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Min	typ	Max	Unit	Test Conditions
Forward Voltage	VF	1.7	—	2.4	V	IF=20mA
Reverse Current	IR	—	—	10	μA	VR=5V
Peak Wave Length	λp	—	590	—	nm	IF=20mA
Dominant Wave Length	λd	586	—	594	nm	
Luminous Intensity	IV	89	—	250	mcd	IF=20mA
Viewing Angle	2θ1/2	—	120	—	Deg.	IF=20mA

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

◆ Typical Electrical/Optical Characteristics Curves

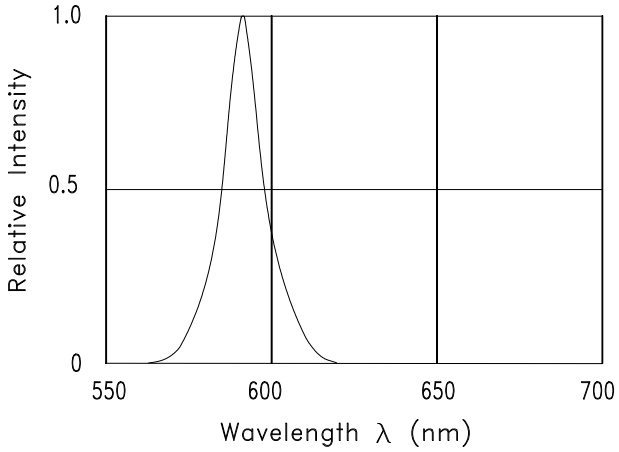


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

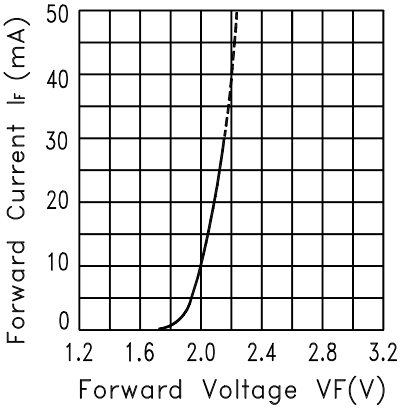


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

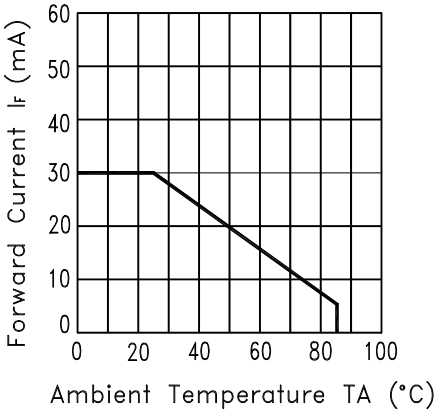


Fig.3 FORWARD CURRENT DERATING CURVE

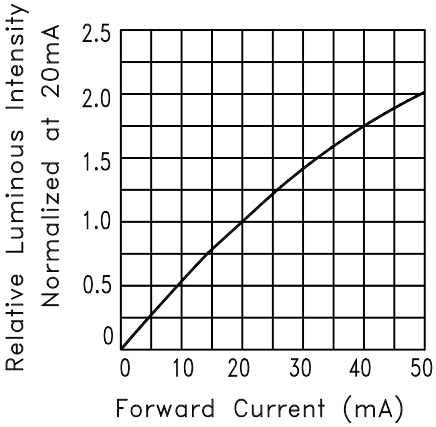


Fig.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

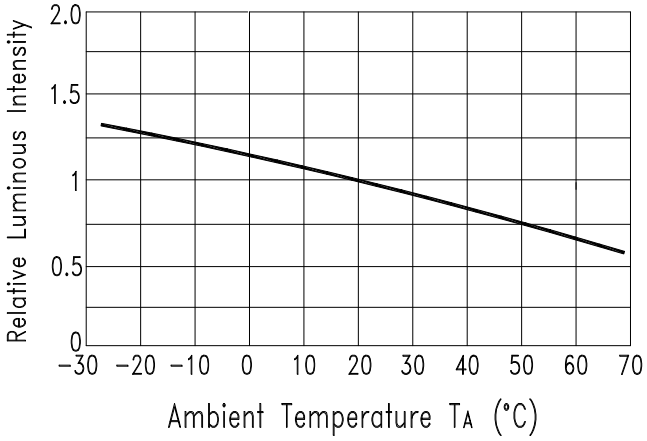


Fig.5 Luminous Intensity vs.Ambient Temperature

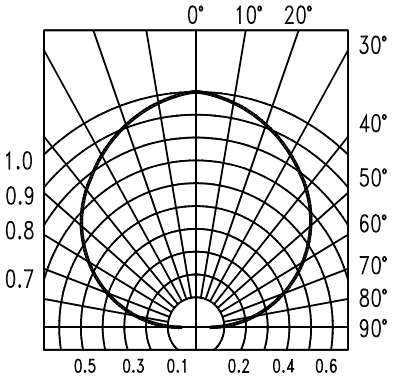
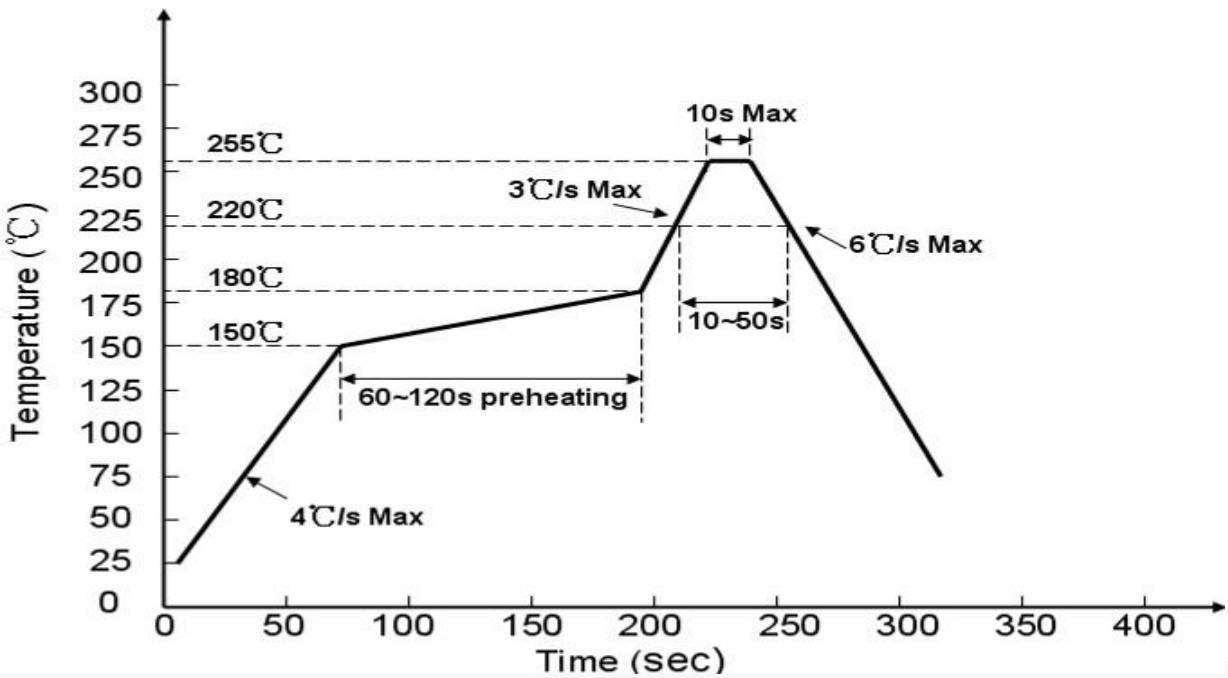


Fig.6 SPATIAL DISTRIBUTION

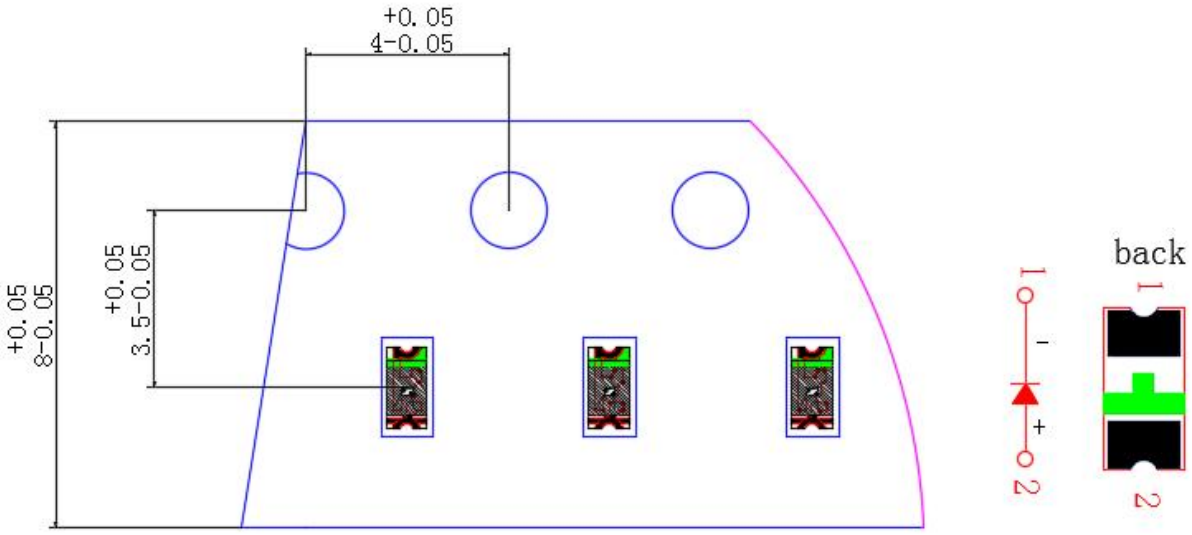
◆ Soldering Profile



Lead process

◆ Tape specifications

(Units:mm)



◆ VF Rank

Rank		VF		Condition
		MIN	MAX	
a	a2	1.7	1.9	IF=20mA
	a3	1.9	2.1	
	a4	2.1	2.3	

Tolerance:±0.05V

◆ IV Rank

Rank		IV		Condition
		MIN	MAX	
n	n1	89	100	IF=20mA
	n2	100	130	
o	o1	130	160	
	o2	160	200	
p	p1	200	250	

Tolerance:±15%

◆ WLD Rank

Rank		WLD		Condition
		MIN	MAX	
H	H2	586	588	IF=20mA
	H3	588	590	
	H4	590	592	
	H5	592	594	
	H6	594	596	

Tolerance:±1nm

◆Judgment criteria of failure for the reliability

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
Forward voltage	V_F(V)	I_F=5mA	Initial Level*1.1
Reverse current	I_R(UA)	V_R=5V	Over U*2
Luminous intensity	IV(mcd)	I_F=5mA	Initial Level*0.7

Note: 1.U means the upper limit of specified characteristics.
2.Measurment shall be taken between 2 hours and after the test pieces have been retumed to normal ambient conditions after completion of each test.

◆ CAUTIONS:

1.Storage

• In order to avoid the absorption of moisture, it is recommended to store in the dry box (or desicca
tor) 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 compo nents 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.