SAMPLE APPROVAL SHEET

DESCRIPTIONS：

- 1.0x0.5x0.48mm SMD LED
- Emitting Color: Green
- Lens Color: Water Clear

CUSTOMER:_____

MASON P/N:KGK-1005SUGC/S530-A4-3T

CUSTOMER P/N:_____

CUSTOMER APPROVED SIGNATURES

APPROVRD BY	CHECKED BY

KGKLIGHT

PRELIMINARY SPEC

1.0x0.5X0.48mm SMD CHIP LED

PART NO: 0402翠绿

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
LECTROSTATIC DISCHARGE
SENSITIVE DEVICES

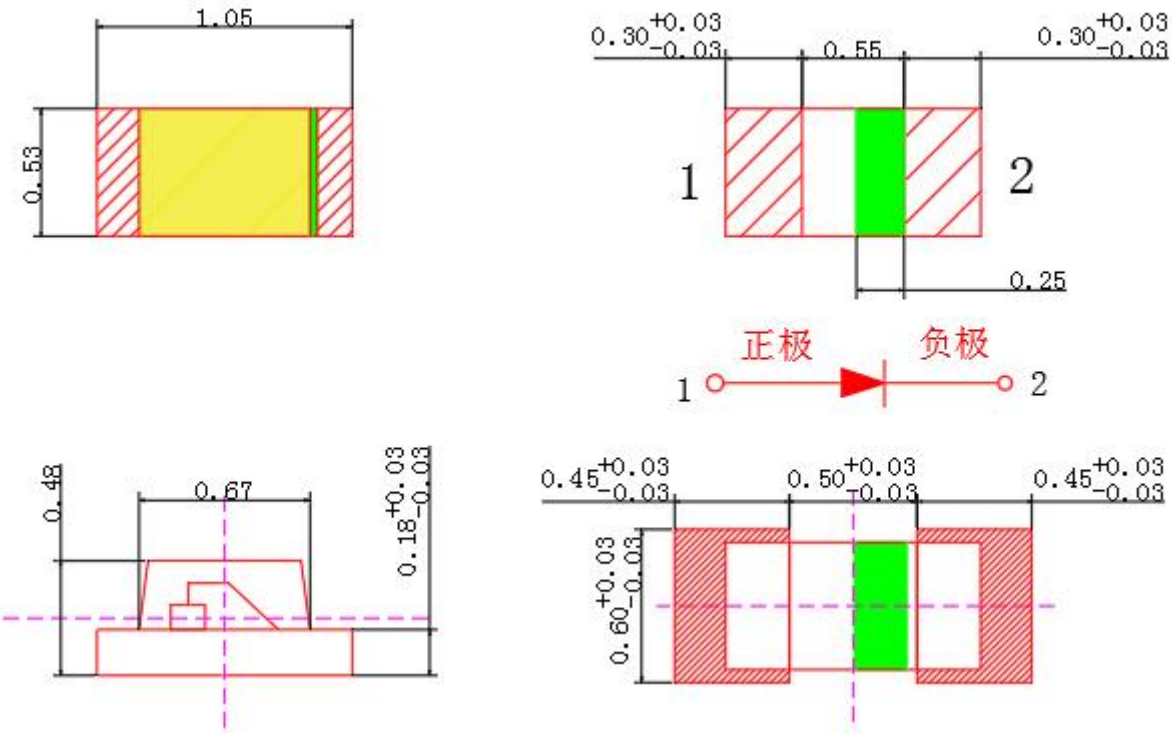
Features

- 1.0mmx0.5mm SMT LED, 0.48mm THICKNESS.
- SIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE : 5000PCS / 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 ±0.1mm unless otherwise noted.
3. Specifications are subject to change without notice.

◆ Device Selection Guide

Part No.	Chip		Lens color
0402翠绿	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	

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	2.5	—	3.0	V	IF=5mA
Reverse Current	IR	—	—	10	μA	VR=5V
Peak Wavelength	λp	—	525	—	nm	IF=5mA
Dominant Wavelength	λd	510	—	530	nm	
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 Dominant Wavelength), the typical accuracy of the sorting process is as follows:

1. Dominant Wavelength: ±1nm
2. Luminous Intensity: ±15%
3. Forward Voltage: ±0.1V

◆ Typical Electrical/Optical Characteristics Curves

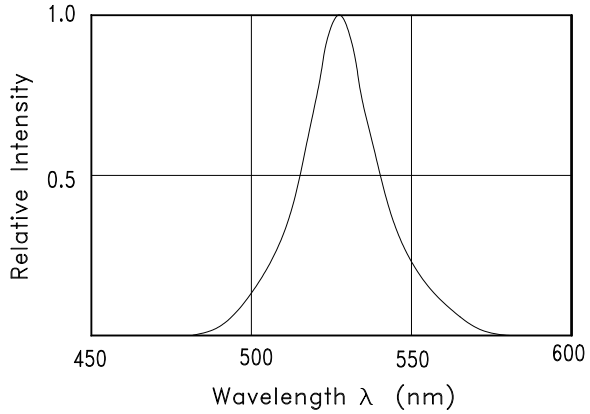


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

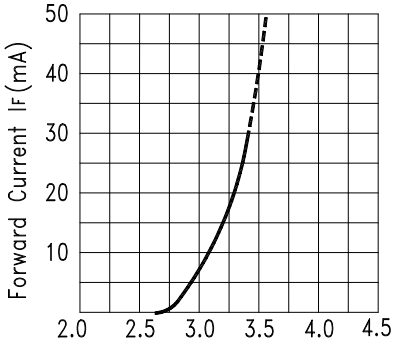


Fig.2 Forward Current vs. Forward Voltage

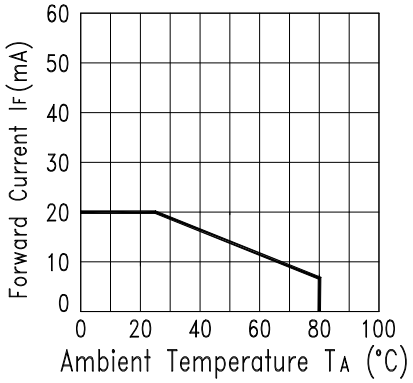


Fig.3 Forward Current Derating Curve

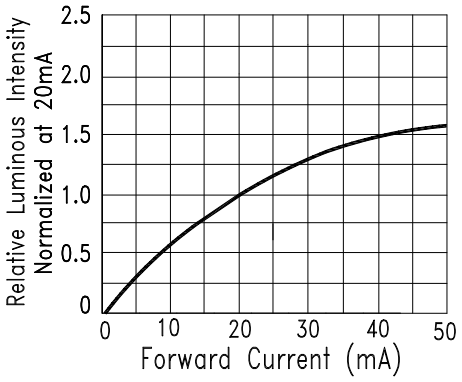


Fig.4 Relative Luminous Intensity vs. Forward Current

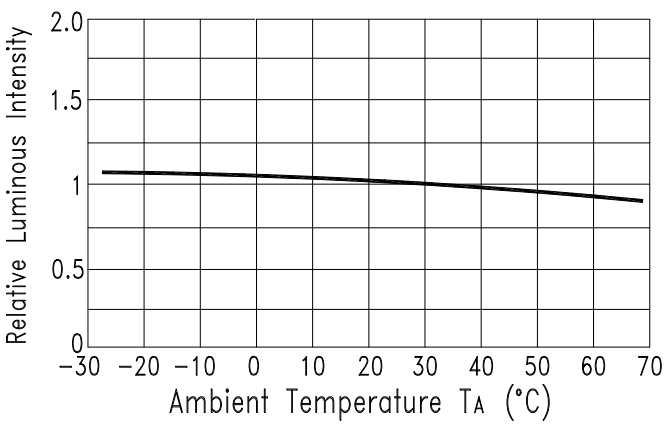


Fig.5 Luminous Intensity vs.Ambient Temperature

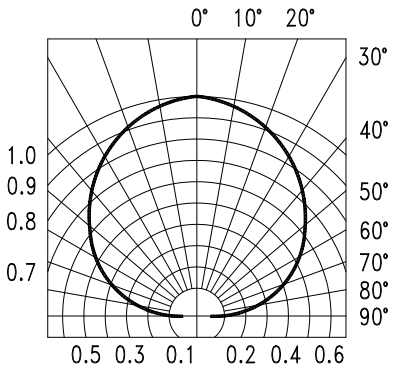
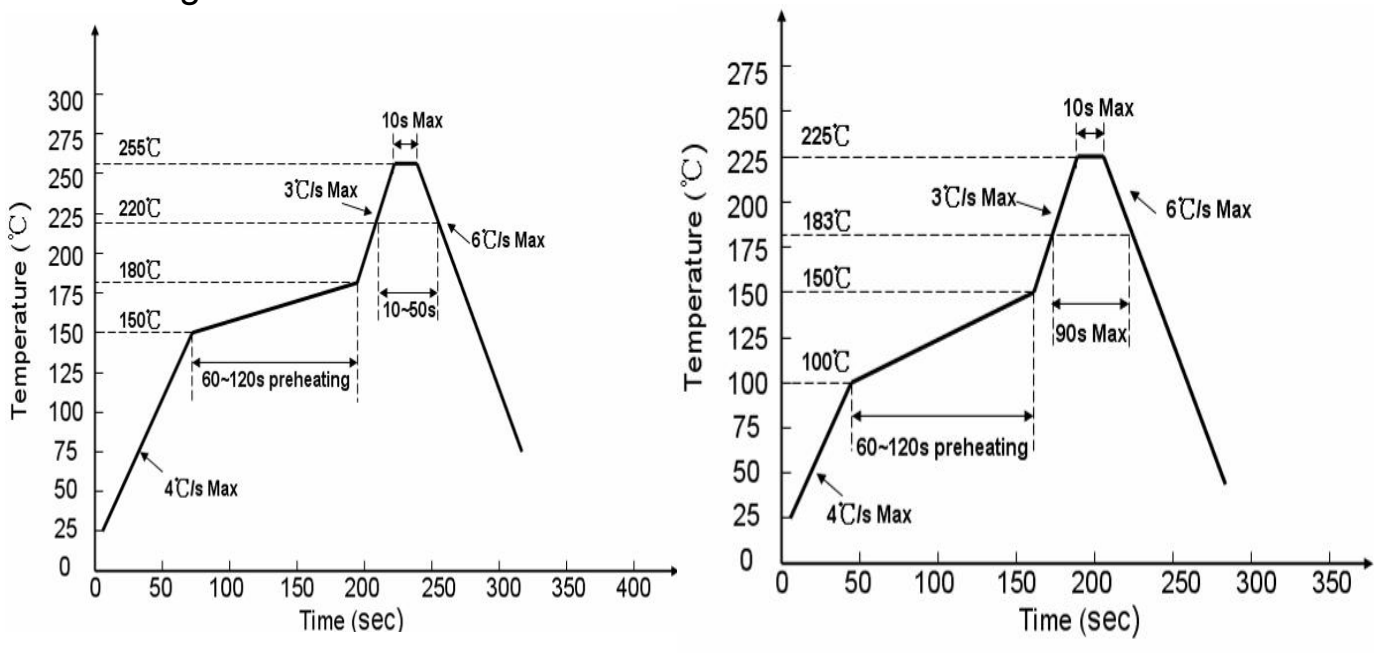


Fig.6 Spatial Distribution

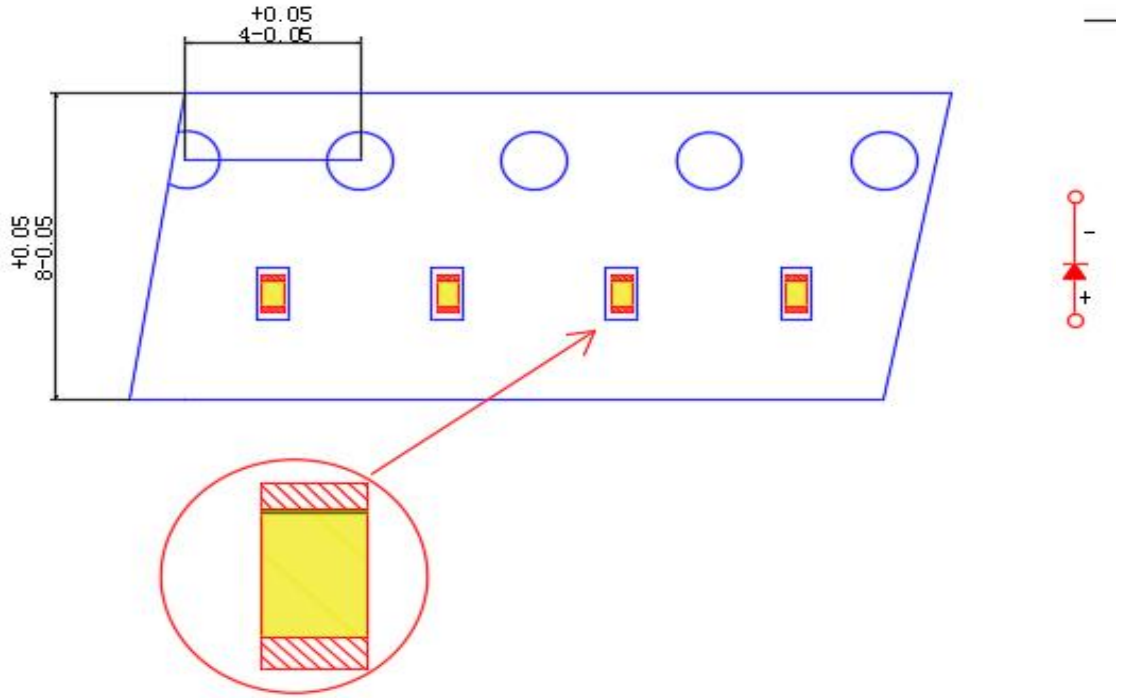
◆ Soldering Profile



Free Lead process　　Lead process

◆ Tape specifications

(Units:mm)



◆ VF Rank

Rank		VF		Condition
		MIN	MAX	
b	b1	2.5	2.6	IF=5mA
	b2	2.6	2.7	
	b3	2.7	2.8	
	b4	2.8	2.9	
	b5	2.9	3.0	

Tolerance:±0.05V

◆ IV Rank

Rank		IV		Condition
		MIN	MAX	
o	o1	130	160	IF=5mA
	o2	160	200	
p	p1	200	250	
	p2	250	300	
q	q1	300	350	

Tolerance:±15%

◆ WLD Rank

Rank		λd		Condition
		MIN	MAX	
E	E3	510	515	IF=5mA
	E4	515	520	
F	F1	520	525	
	F2	525	530	
	F3	530	535	

Tolerance:±1nm

◆ CAUTIONS:

1.Storage

• In order to avoid the absorption of moisture, it is recommended to store in the dry box (or desiccators) with a desiccant. Otherwise, to store them in the following environment is recommended. Temperature: 5°C~30°CHumidity: 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.

• In case of supposed the components is humid, shall not be dried dip-solder just before. 100Hr at 80°C±3°C or 12Hr at 100°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.

3.Please be careful when using in an environment with high concentrations of sulphur or sulphuric gases,as sulphuration can lead to disconnection from the chip resistor or a poor contact connection.