



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: KM2520EG/4SGD-5V

Super Bright Green

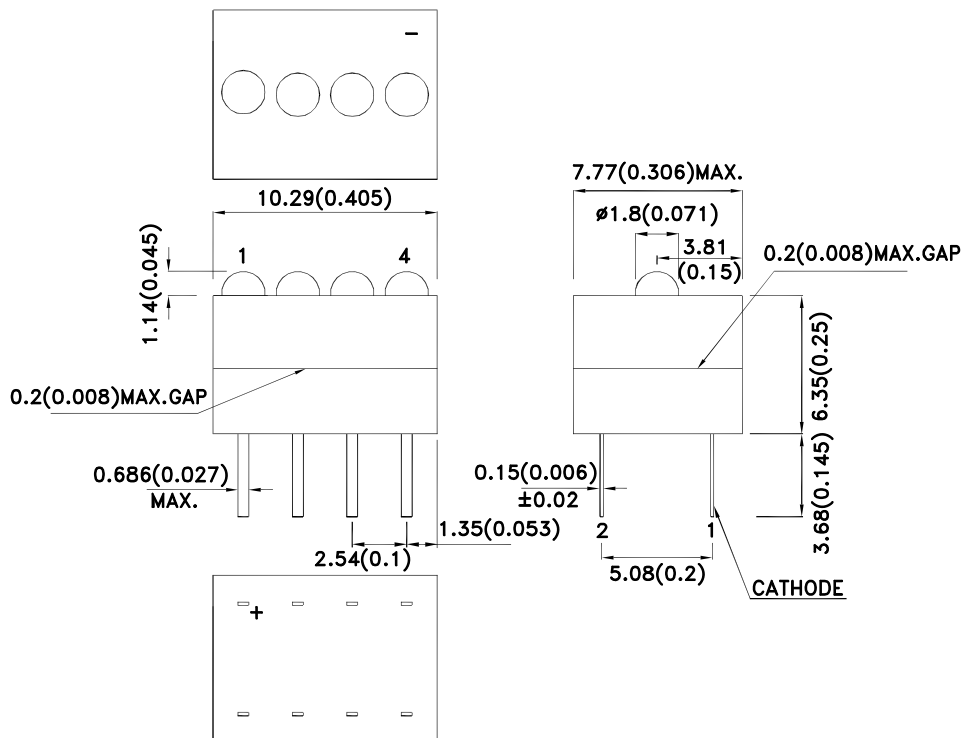
Features

- Black case enhances contrast.
- Vibration and shock resistant.
- Housing UL rating: 94V-0.
- Housing material: type 66 nylon.
- 5V internal resistor.
- RoHS compliant.

Description

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] V= 5V		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KM2520EG/4SGD-5V	Super Bright Green (GaP)	Green Diffused	3	8	40°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.
3. Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green	565		nm	VF=5V
λD [1]	Dominant Wavelength	Super Bright Green	568		nm	VF=5V
Δλ1/2	Spectral Line Half-width	Super Bright Green	30		nm	VF=5V
IF	Forward Current	Super Bright Green	11.5	17.5	mA	VF=5V
IR	Reverse Current	Super Bright Green		10	uA	VR = 5V

Notes:

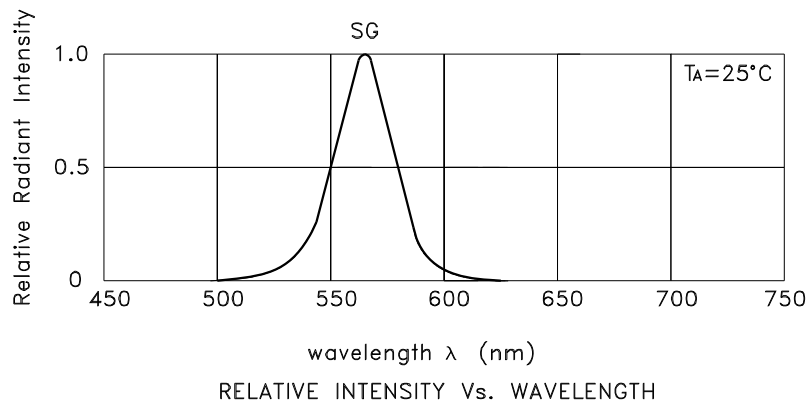
- 1.Wavelength: +/-1nm.
- 2.Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Green	Units
Power dissipation	85	mW
Forward Voltage	6	V
Reverse Voltage	5	V
Operating Temperature	-40°C To +70°C	
Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [1]	260°C For 3 Seconds	
Lead Solder Temperature [2]	260°C For 5 Seconds	

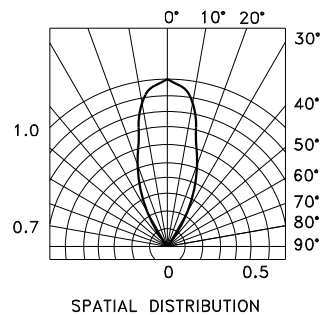
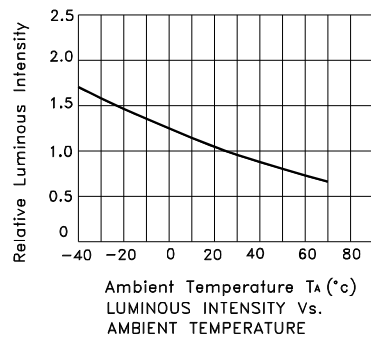
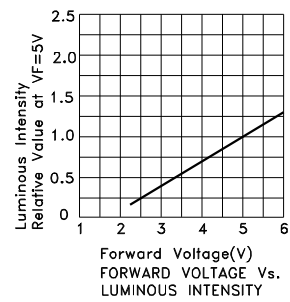
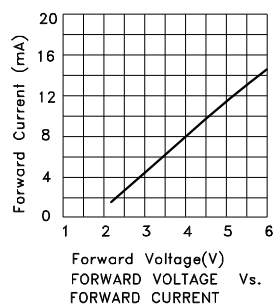
Notes:

1. 2mm below package base.
2. 5mm below package base.



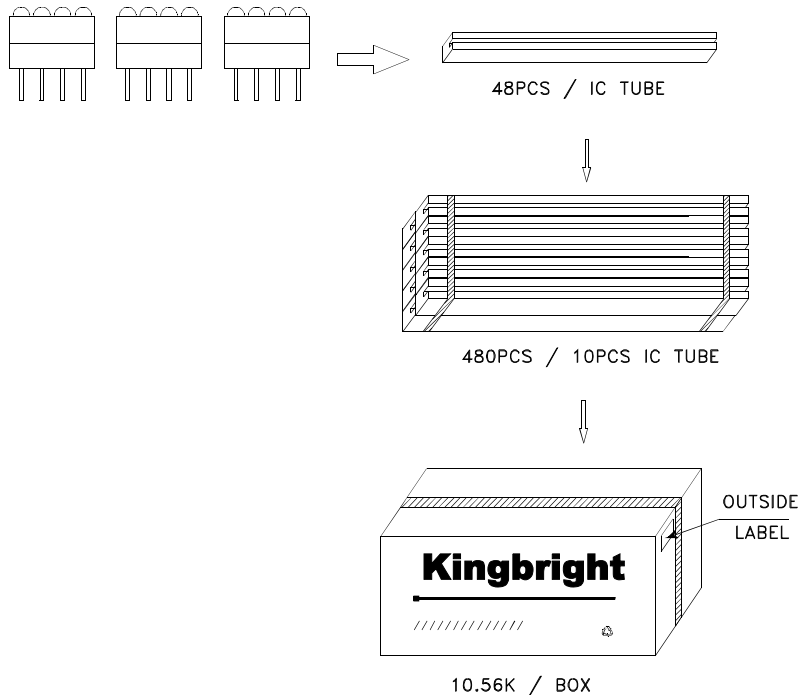
Super Bright Green


KM2520EG/4SGD-5V



PACKING & LABEL SPECIFICATIONS

KM2520EG/4SGD-5V



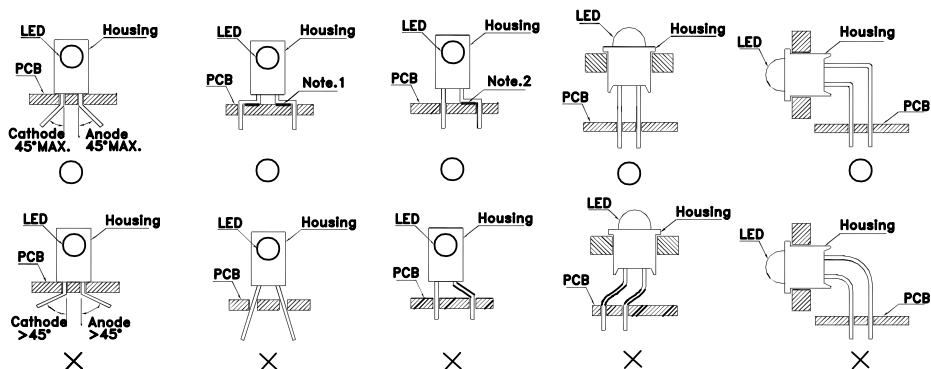
Kingbright	
P/NO: KM2520EGXXX	
QTY: 480 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
RoHS Compliant	

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PRECAUTIONS

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.

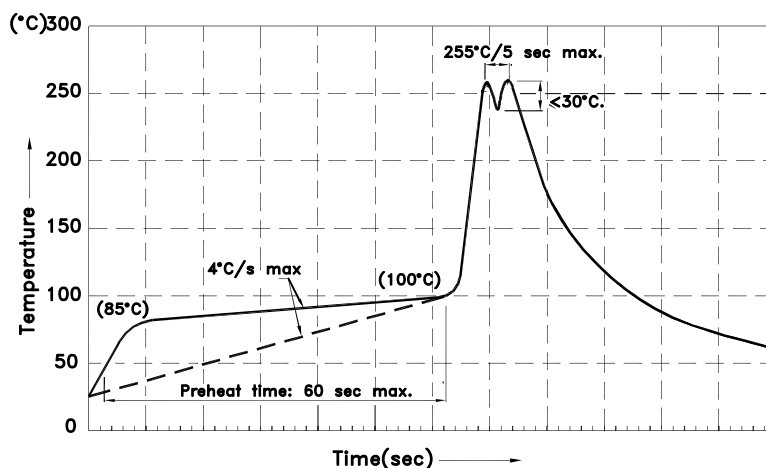


"○" Correct mounting method "×" Incorrect mounting method

2. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.



3. The tip of the soldering iron should never touch the lens epoxy.
4. Through-hole LEDs are incompatible with reflow soldering.
5. If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Kingbright for compatibility.
6. Recommended Wave Soldering Profiles:



Notes:

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.