Kingbright

AP1608SGD   SUPER BRIGHT GREEN

Features

● 1.6mmx0.8mm SMT LED, 1.1mm THICKNESS.

● LOW POWER CONSUMPTION.

● WIDE VIEWING ANGLE.

● IDEAL FOR BACKLIGHT AND INDICATOR.

● VARIOUS COLORS AND LENS TYPES AVAILABLE.

● PACKAGE : 2000PCS / REEL.

Description

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

Package Dimensions

POLARITY MARK
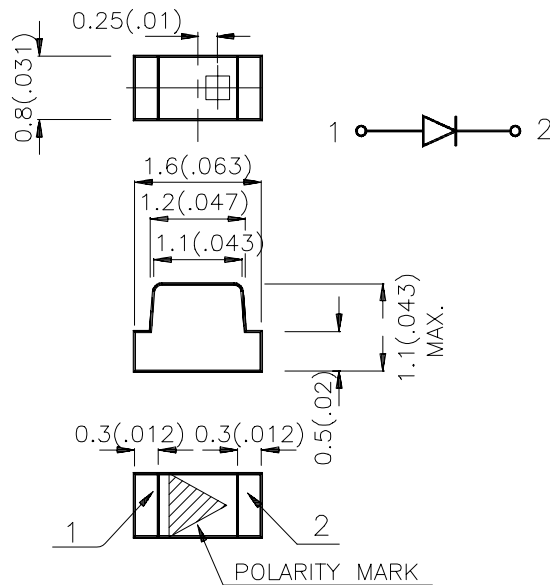
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

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Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20 mA | | Viewing Angle |
			Min.	Typ.	2θ1/2
AP1608SGD	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	3	12	120°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
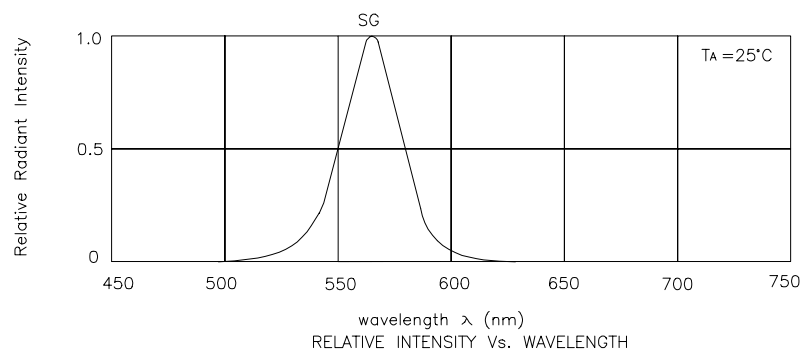
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green	565		nm	I_F =20mA
λD	Dominate Wavelength	Super Bright Green	568		nm	I_F =20mA
$\Delta\lambda$1/2	Spectral Line Half-width	Super Bright Green	30		nm	I_F =20mA
C	Capacitance	Super Bright Green	15		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	Super Bright Green	2.2	2.5	V	I_F =20mA
I_R	Reverse Current	Super Bright Green		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

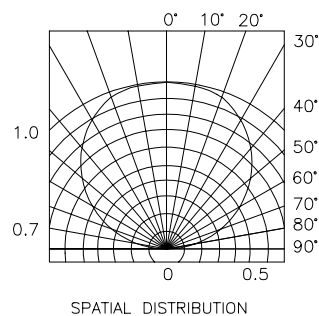| Parameter	Super Bright Green	Units
Power dissipation	105	mW
DC Forward Current	25	mA
Peak Forward Current [1]	140	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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SG

TA = 25°C

Relative Radiant Intensity

wavelength λ (nm)
RELATIVE INTENSITY Vs. WAVELENGTH

Super Bright Green   AP1608SGD

Forward Current (mA)

Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE

Luminous Intensity
Relative Value at IF=20mA

IF—Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

Forward Current (mA)

Ambient Temperature TA (°C)
FORWARD CURRENT
DERATING CURVE

0° 10° 20°
30°
40°
50°
60°
70°
80°
90°

SPATIAL DISTRIBUTION

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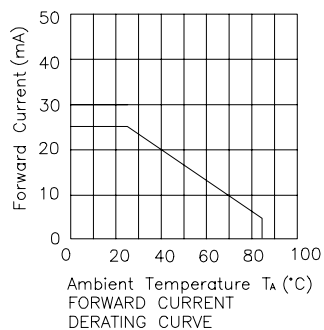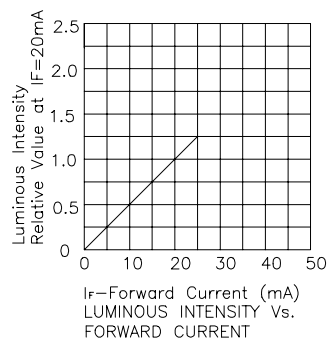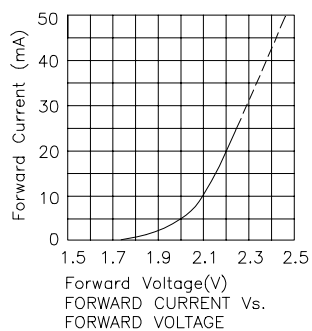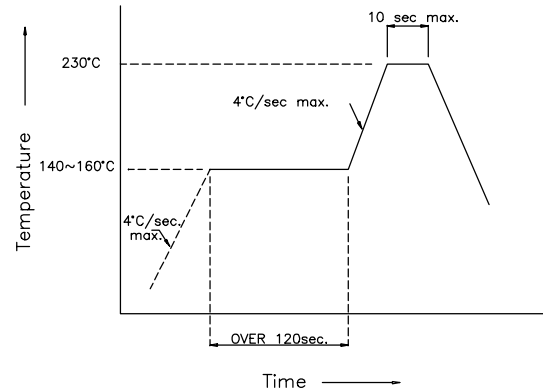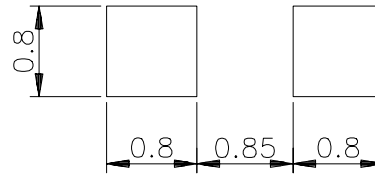
AP1608SGD
SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling
process to normal temperature is required between first and
second soldering process.

Recommended Soldering Pattern
(Units : mm)

Tape Specifications
(Units : mm)