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# 承 认 书

## Specification for approval

客户名称:

CUSTOMER NAME: \_\_\_\_\_

经办者:

职称:

DIRECTOR: \_\_\_\_\_ TITLE: \_\_\_\_\_

客户料号:

CUSTOMER PART NO.: \_\_\_\_\_

品名:

版本:

PART NUMBER: LS-3216-02UPGC REVISION: 新

发件日期:

回文日期:

ISSUE DATE: 2012/12/26 RETURN DATE:  / /

## SMD CHIP LED LAMP

### GREEN

PRELIMINARY SPEC



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

#### Features

- \_3.2mmX1.6mm SMT LED, 0.90mm THICKNESS.
- \_LOW POWER CONSUMPTION.
- \_WIDE VIEWING ANGLE.
- \_IDEAL FOR BACKLIGHT AND INDICATOR.
- \_VARIOUS COLORS AND LENS TYPES AVAILABLE.
- \_PACKAGE: 3000PCS / REEL.
- \_RoHS COMPLIANT.

#### Description

The GREEN source color devices are made with GaN on

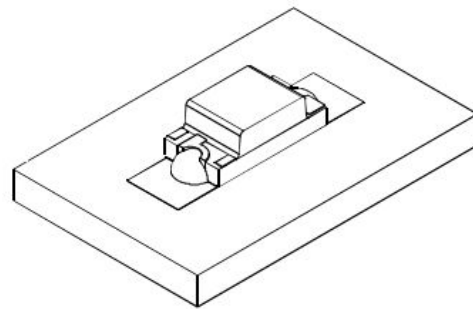
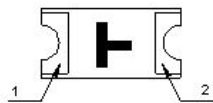
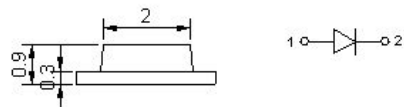
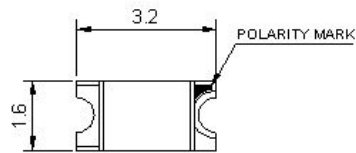
Sapphire Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

#### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.

### Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
LS-3216-02UPGC	GREEN (GaN)	WATER CLEAR	400	600	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 TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	GREEN	520	526	nm	IF=20mA
λ <sub>D</sub>	Dominant Wavelength	GREEN			nm	IF=20mA
Δλ <sub>1/2</sub>	Spectral Line Half-width	GREEN	25		nm	IF=20mA
C	Capacitance	GREEN	105		pF	VF=0V;f=1MHz
VF	Forward Voltage	GREEN	3.0	3.4	V	IF=20mA
IR	Reverse Current	GREEN		10	uA	VR = 5V

#### Remarks:

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

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

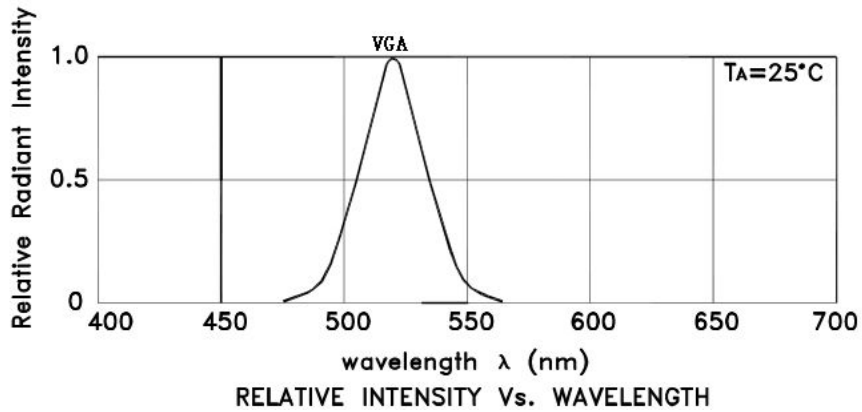
Note: Accuracy may depend on the sorting parameters

### Absolute Maximum Ratings at TA=25°C

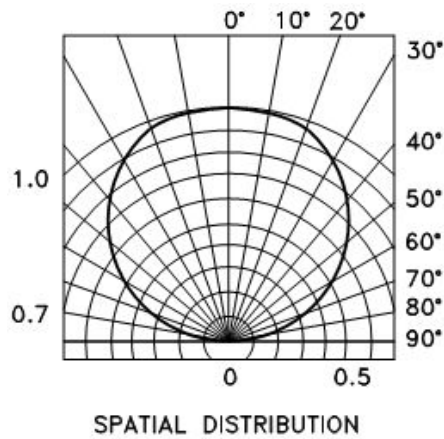
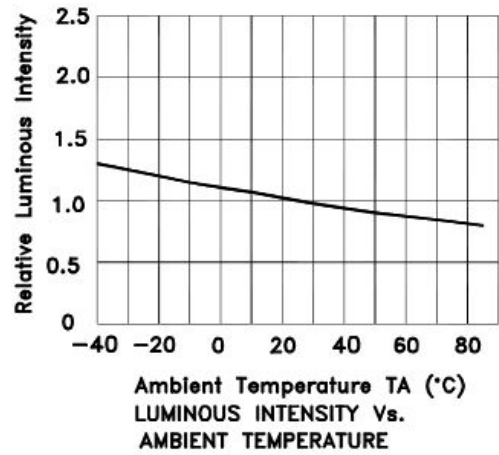
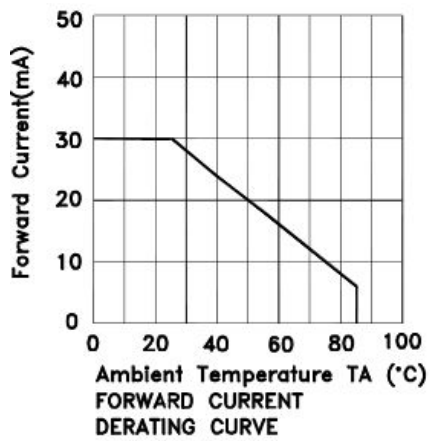
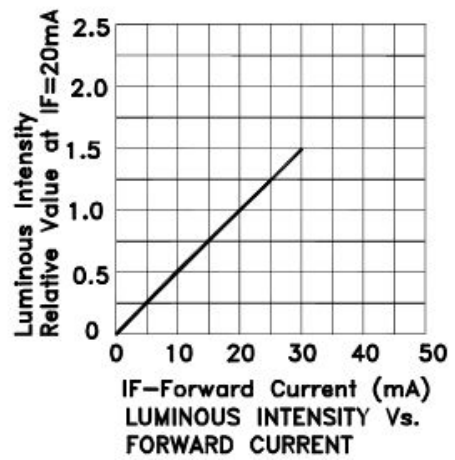
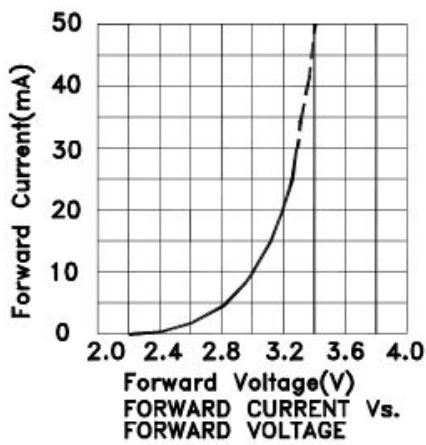
Parameter	GREEN	Units
Power dissipation	135	mW
DC Forward Current	30	mA
Peak Forward Current [1]	140	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

#### Note:

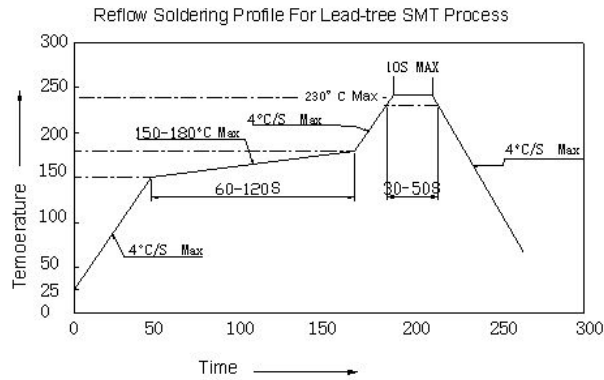
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



**GREEN**

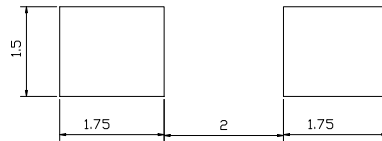


**GREEN**

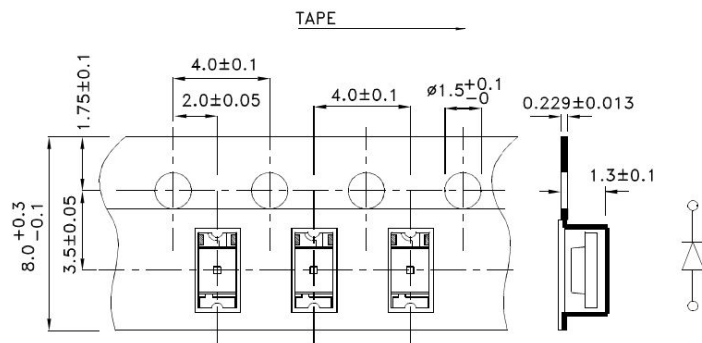


- NOTES:
1. We recommend the reflow temperature 245° c(±5) The maximum soldering temperature should be limited to 280° c
  2. Don't cause stress too the epoxy resin while it is exposed to high temperature.
  3. Numbe of reflow process shall be 2 time or less.

**Recommended Soldering Pattern  
(Units : mm)**



**Tape Specifications  
(Units : mm)**



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