

#### 3.2x1.6mm SMD CHIP LED LAMP

PRELIMINARY SPEC



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

Part Number: APTL3216ZGC/G

#### **Features**

- 3.2mmx1.6mm SMT LED, 1.1mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

#### Description

The Green source color devices are made with InGaN Light Emitting Diode.

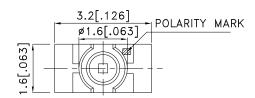
Green

Static electricity and surge damage the LEDS.

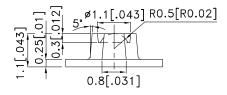
It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

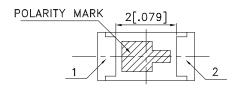
All devices, equipment and machinery must be electrically grounded.

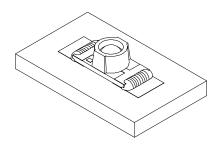
#### **Package Dimensions**











- 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.4. The device has a single mounting surface. The device must be mounted according to the specifications.





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#### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		-	Min.	Тур.	201/2
APTL3216ZGC/G	Green (InGaN)	WATER CLEAR	900	1800	70°

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value. 2. Luminous intensity/ luminous Flux: +/-15%.

### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	520		nm	IF=20mA
λD [1]	Dominant Wavelength	Green	525		nm	I=20mA
Δλ1/2	Spectral Line Half-width	Green	35		nm	I==20mA
С	Capacitance	Green	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	3.2	4	V	I==20mA
lr	Reverse Current	Green		10	uA	V <sub>R</sub> =5V

#### Notes:

- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

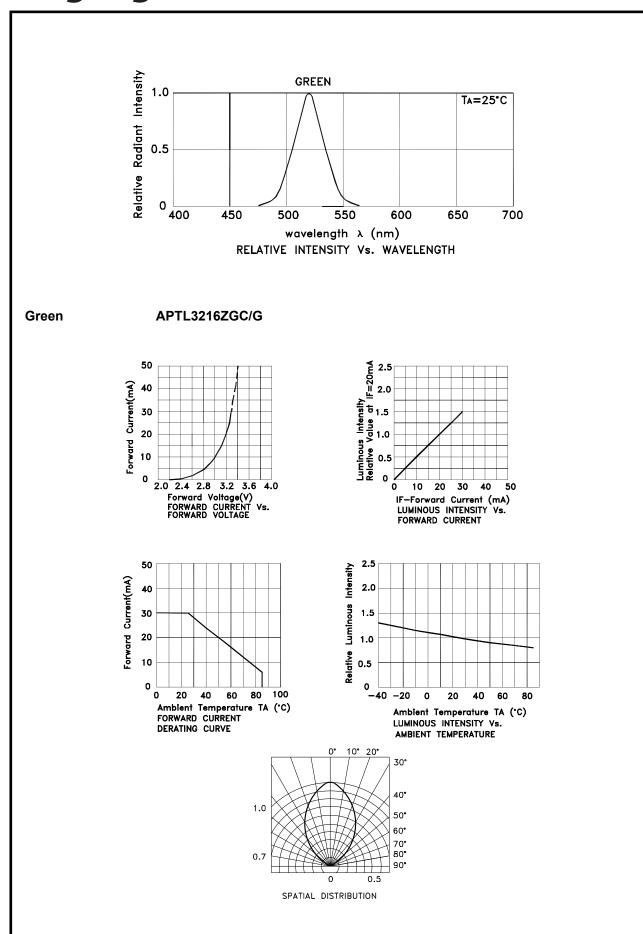
#### Absolute Maximum Ratings at TA=25°C

Parameter	Green	Units	
Power dissipation	120	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	100	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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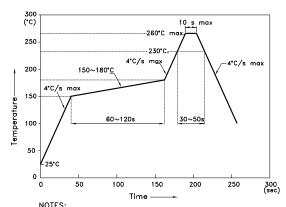
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#### APTL3216ZGC/G

Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



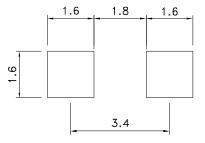
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

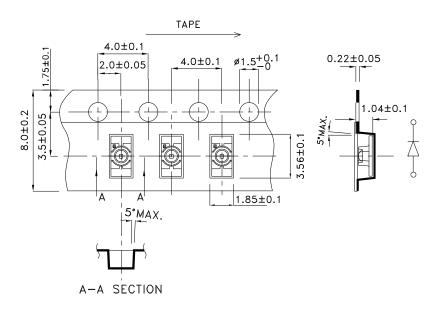
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature. to high temperature.

  3.Number of reflow process shall be 2 times or less.

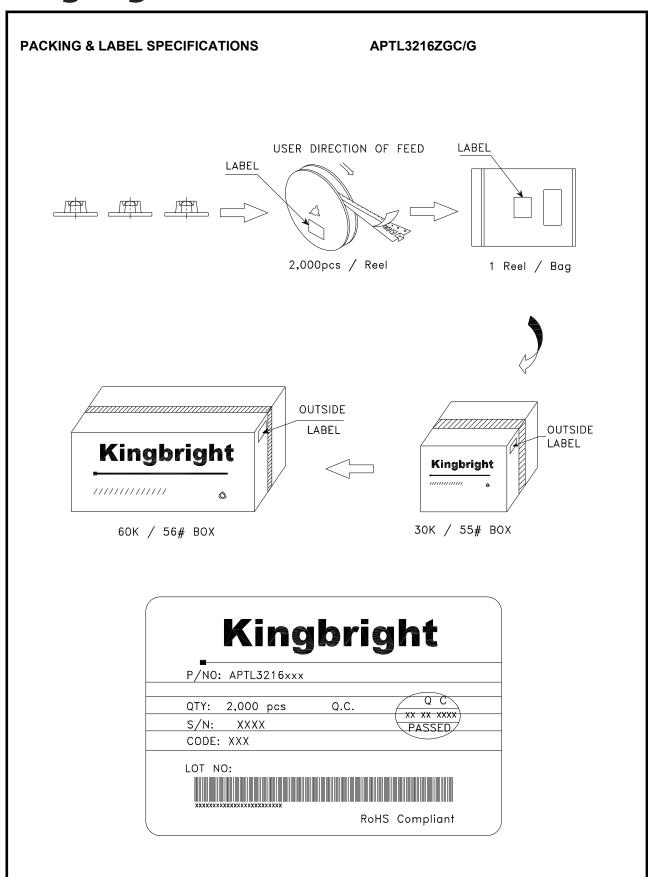
#### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



#### **Tape Dimensions** (Units: mm)



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