

3.2x1.6mm SMD CHIP LED LAMP

Part Number: APTD3216ZGC/E Green



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

Features

- 3.2mmX1.6mm SMT LED, 1.8mm 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

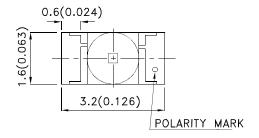
The Green source color devices are made with InGaN Light Emitting Diode.

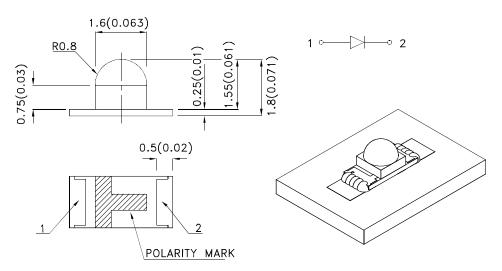
Static electricity and surge damage the LEDS.

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 $\pm 0.2 (0.008")$ unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.

SPEC NO: DSAK0156 **REV NO: V.4B DATE: JUL/17/2013** PAGE: 1 OF 5 APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1203010128

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
APTD3216ZGC/E	Green (InGaN)	Water Clear	2700	3600	35°

Notes:

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

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	IF=20mA
Δλ1/2	Spectral Line Half-width	Green	35		nm	IF=20mA
С	Capacitance	Green	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	3.2	4	V	IF=20mA
lr	Reverse Current	Green		50	uA	V _R =5V

Notes:

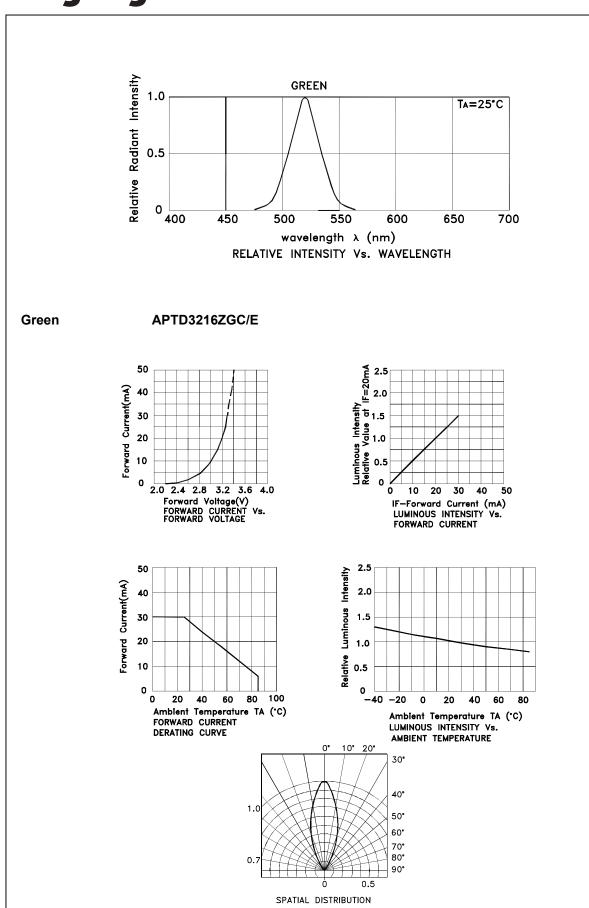
- 1.Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

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.

SPEC NO: DSAK0156 **REV NO: V.4B** DATE: JUL/17/2013 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Q.M.Chen ERP: 1203010128

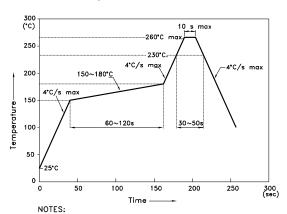


SPEC NO: DSAK0156 REV NO: V.4B DATE: JUL/17/2013 PAGE: 3 OF 5
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1203010128

APTD3216ZGC/E

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.



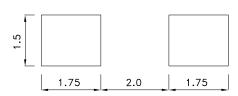
- NOTES:

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

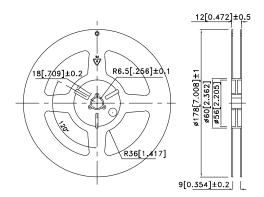
 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
 - to high temperature.

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

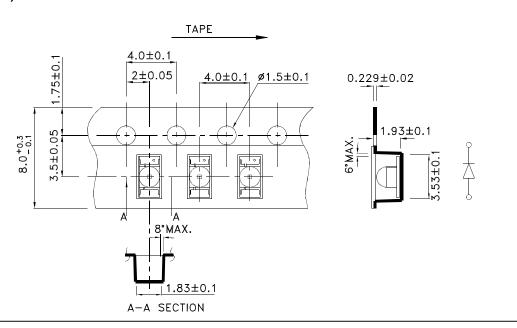
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Reel Dimension



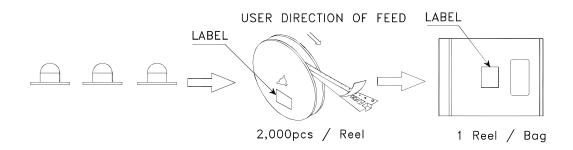
Tape Dimensions (Units : mm)

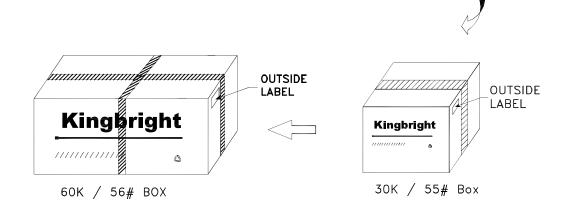


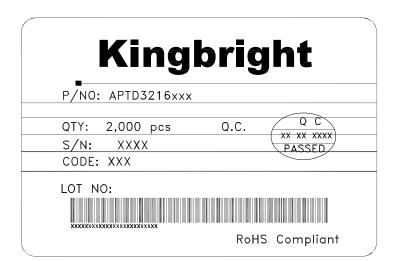
SPEC NO: DSAK0156 APPROVED: WYNEC REV NO: V.4B CHECKED: Allen Liu DATE: JUL/17/2013 DRAWN: Q.M.Chen PAGE: 4 OF 5 ERP: 1203010128

PACKING & LABEL SPECIFICATIONS

APTD3216ZGC/E







All design applications should refer to Kingbright application notes available at http://www.KingbrightUSA.com/ApplicationNotes

SPEC NO: DSAK0156 APPROVED: WYNEC REV NO: V.4B CHECKED: Allen Liu DATE: JUL/17/2013 DRAWN: Q.M.Chen PAGE: 5 OF 5 ERP: 1203010128