

Kingbright

3.2x1.6mm SMD CHIP LED LAMP

PRELIMINARY SPEC

Part Number: APTL3216VGC/A

Green



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

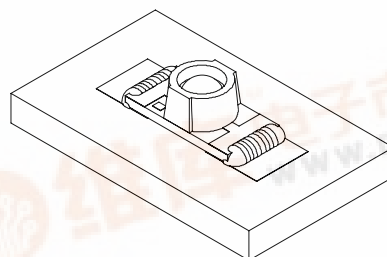
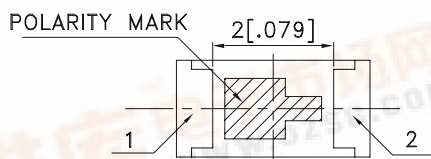
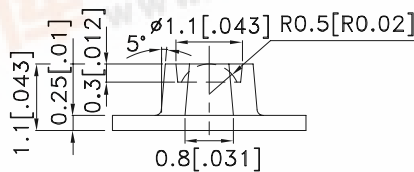
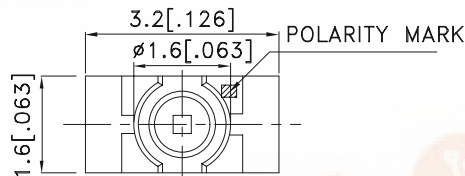
Features

- 3.2mmx1.6mm 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.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

Description

The Green source color devices are made with InGaN on G-SiC 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.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APTL3216VGC/A	Green (InGaN)	WATER CLEAR	280	450	70°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	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
C	Capacitance	Green	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	3.2	4	V	IF=20mA
IR	Reverse Current	Green		10	uA	VR=5V

Notes:

1.Wavelength: +/-1nm.

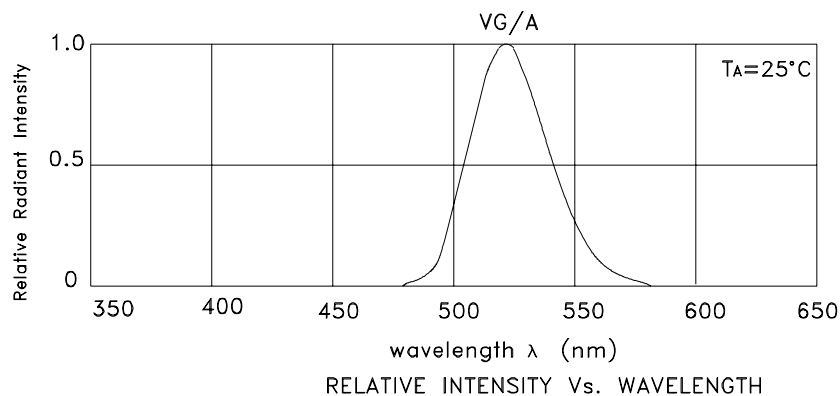
2. Forward Voltage: +/-0.1V.

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.



Green

APTL3216VGC/A

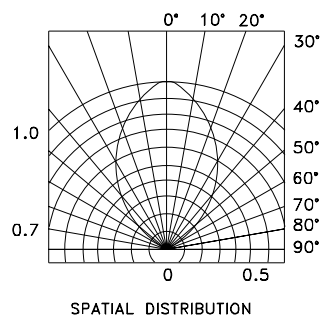
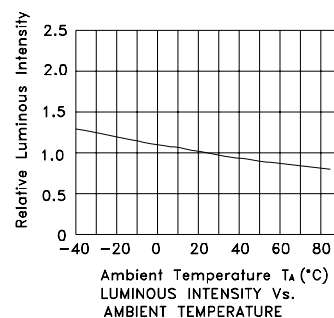
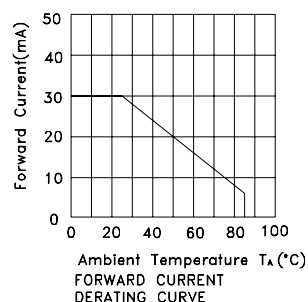
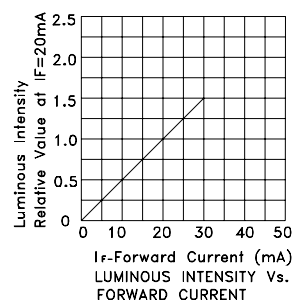
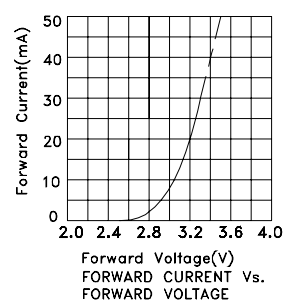


Figure 1 is a line graph showing the temperature profile of the furnace during the heat treatment of the samples. The Y-axis represents Temperature in degrees Celsius (°C), ranging from 0 to 300. The X-axis represents Time in seconds (sec), ranging from 0 to 300. The profile starts at 25°C at 0 seconds. It rises at a rate of 4°C/s to 150°C at 40 seconds. From 150°C, it rises at a rate of 1°C/s to 180°C at 120 seconds. From 180°C, it rises at a rate of 4°C/s to 230°C at 160 seconds. From 230°C, it rises at a rate of 4°C/s to 260°C at 190 seconds. It then holds at 260°C for 10 seconds (200 seconds). Finally, it cools at a rate of 4°C/s to 100°C at 250 seconds.

Technical drawing of a tape reel showing top and side views with dimensions.

Top View Dimensions:

- Overall width: 8.0 ± 0.2
- Distance from top edge to center line: 3.5 ± 0.05
- Distance from center line to bottom edge: 3.56 ± 0.1
- Distance between center lines of adjacent reels: 4.0 ± 0.1
- Distance from center line to the edge of the reel body: 2.0 ± 0.05
- Radius of the outer flange: $R1.75 \pm 0.1$
- Radius of the inner flange: $R1.5 \pm 0.1$
- Distance from center line to the edge of the reel body (bottom): 1.85 ± 0.1
- Angle of the outer flange: 5°MAX.

Side View Dimensions:

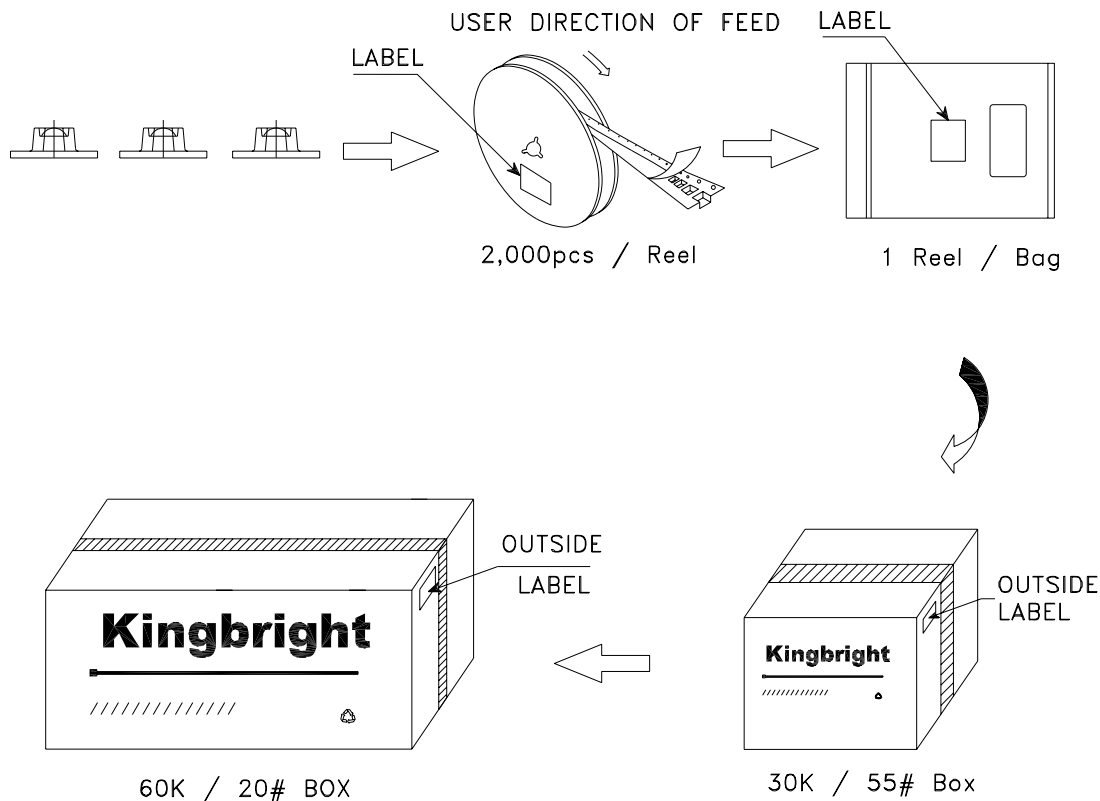
- Overall height: 0.22 ± 0.05
- Distance from top edge to center line: 1.04 ± 0.1
- Angle of the outer flange: 5°MAX.

Other Features:

- Label: TAPE
- Section line: A-A
- Section view: A-A SECTION

PACKING & LABEL SPECIFICATIONS

APTL3216VGC/A



Kingbright	
P/NO: APTL3216xxx	
QTY: 2,000 pcs	Q.C. Q C xx xx xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
XXXXXXXXXXXXXXXXXXXX	
MADE IN CHINA	RoHS Compliant