

Kingbright

3.5x2.8mm SURFACE MOUNT LED LAMP

PRELIMINARY SPEC

Part Number: AA3528APR2C/A

PINK



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE : 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

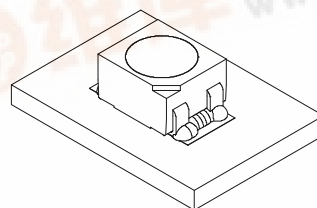
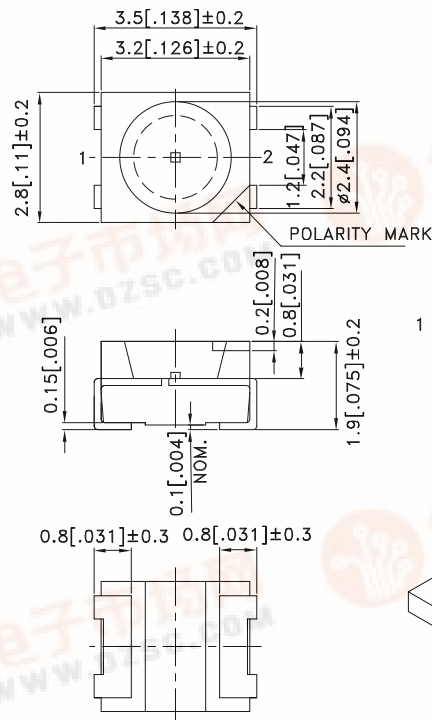
The Pink source color devices are made with InGaN on SiC Light Emitting Diode.

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 $\pm 0.25(0.01)$ 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
AA3528APR2C/A	PINK (InGaN)	WATER CLEAR	180	290	120°

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
V _F [1]	Forward Voltage	Pink	3.2	4.0	V	I _F =20mA
I _R	Reverse Current	Pink		10	uA	V _R = 5V
X[2]	Chromaticity Coordinates	Pink	0.33			
Y[2]			0.20			
C	Capacitance	Pink	100		pF	V _F =0V;f=1MHz

Notes:

- 1.Forward Voltage: +/-0.1V.
2. Measurement tolerance of the chromaticity coordinates is ±0.01

Absolute Maximum Ratings at TA=25°C

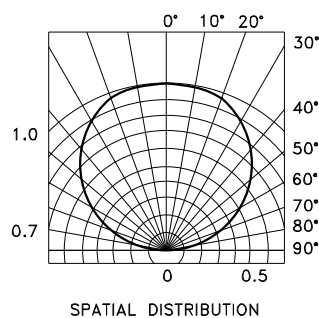
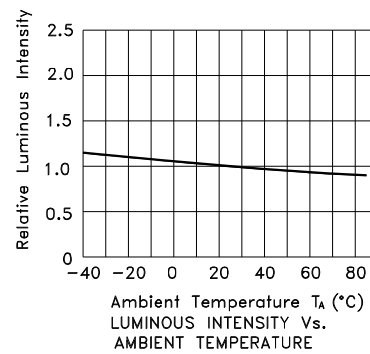
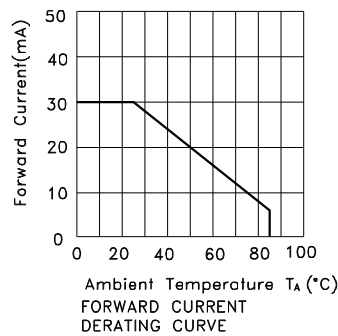
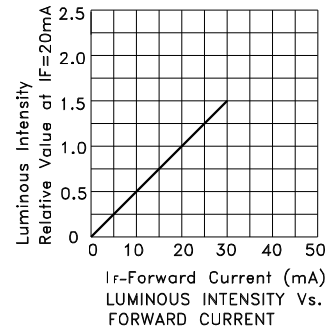
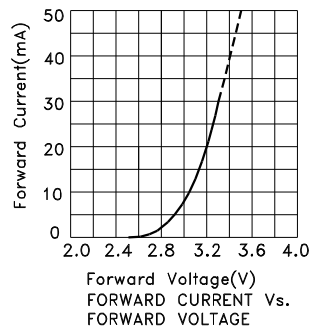
Parameter	Pink	Units
Power dissipation	120	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

Note:

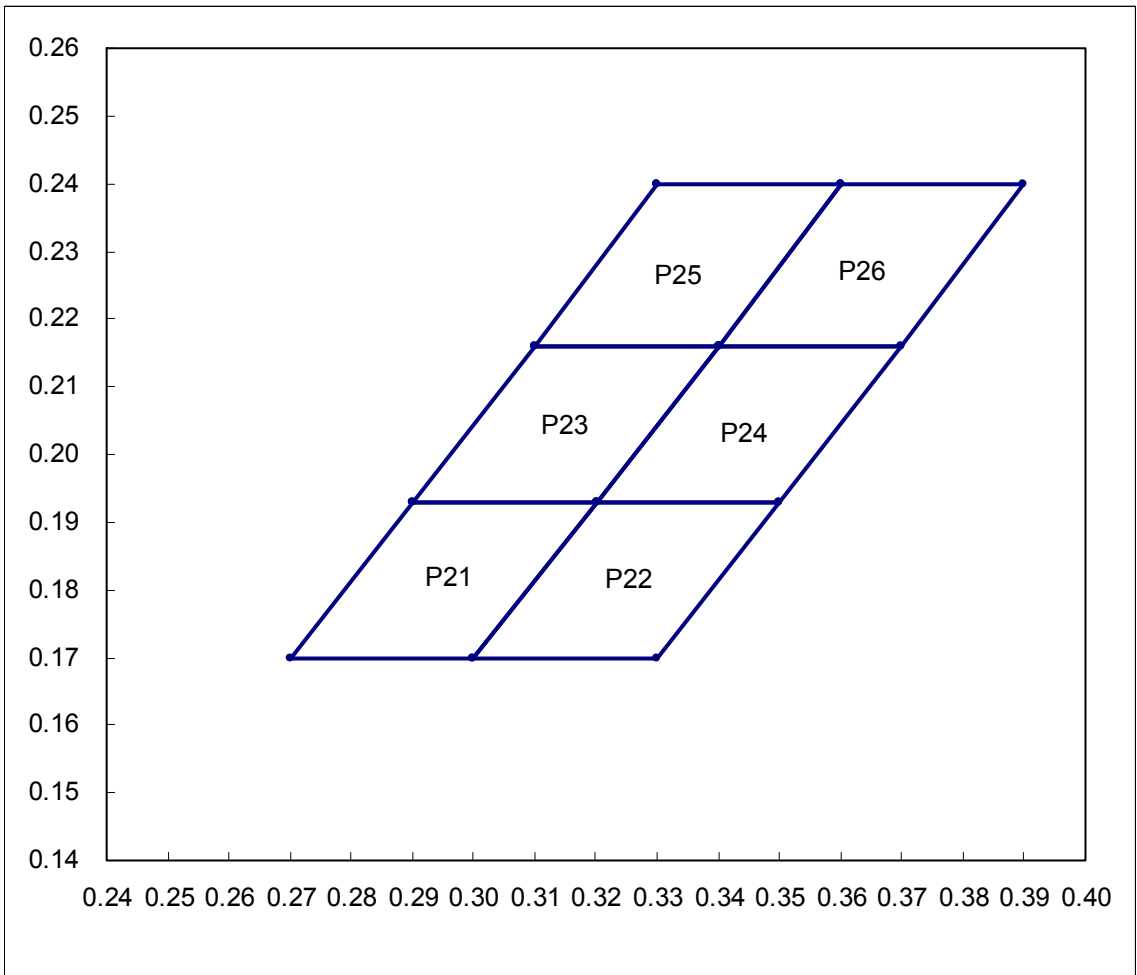
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Pink

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P21				
X	0.330	0.360	0.340	0.310
Y	0.240	0.240	0.216	0.216

P22				
X	0.310	0.340	0.320	0.290
Y	0.216	0.216	0.193	0.193

P23				
X	0.290	0.320	0.300	0.270
Y	0.193	0.193	0.170	0.170

P24				
X	0.360	0.390	0.370	0.340
Y	0.240	0.240	0.216	0.216

P25				
X	0.340	0.370	0.350	0.320
Y	0.216	0.216	0.193	0.193

P26				
X	0.320	0.350	0.330	0.300
Y	0.193	0.193	0.170	0.170

Figure 1 is a line graph showing the temperature profile of the furnace during the heat treatment of the specimen. 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 continues to rise at 4°C/s to 180°C at 60 seconds. From 180°C, it continues to rise at 4°C/s to 230°C at 150 seconds. From 230°C, it continues to rise at 4°C/s to 260°C at 190 seconds. It then holds at 260°C for 10 seconds. Finally, it cools at a rate of 4°C/s to 100°C at 250 seconds.

Time (sec)	Temperature (°C)	Rate (°C/s)
0	25	-
40	150	4
60	180	4
150	230	4
190	260	4
200	260	0
250	100	-4

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

Technical drawing of a 4-hole tape reel. The drawing includes a top view and a cross-section A-A.

Top View Dimensions:

- Overall width: 12 ± 0.3
- Distance from top edge to center line: 5.5 ± 0.05
- Distance between center lines of adjacent holes: 4.0 ± 0.1
- Distance from center line to hole center: 2 ± 0.05
- Hole diameter: $\varnothing 1.55 \pm 0.05$
- Distance from center line to hole edge: 4.0 ± 0.1
- Distance from center line to hole edge (alternative): 3.95 ± 0.15
- Distance from center line to hole edge (alternative): 3.1 ± 0.15
- Distance from center line to hole edge (alternative): 2.15 ± 0.1
- Distance from center line to hole edge (alternative): 0.25 ± 0.1
- Distance from center line to hole edge (alternative): 5°MAX.

Cross-section A-A:

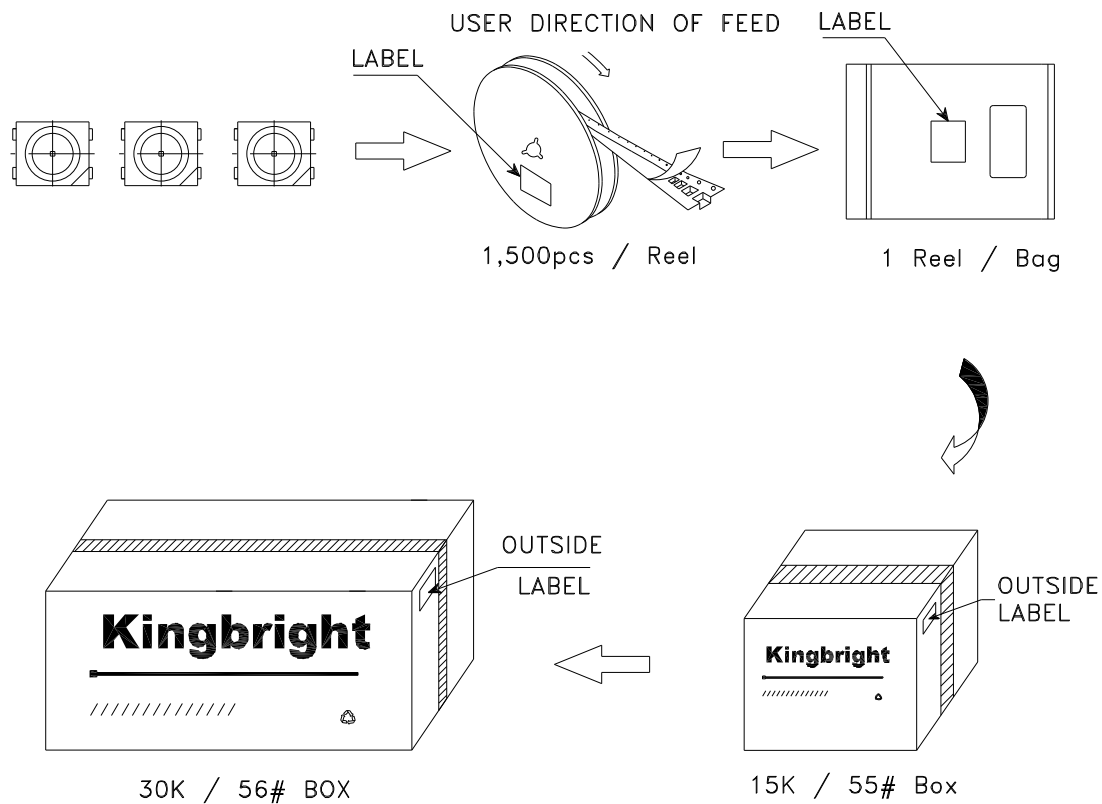
- Shows the profile of the reel with a 5°MAX. angle.
- Indicates the tape edge and the hole profile.

Labels:

- TAPE
- A-A SECTION

PACKING & LABEL SPECIFICATIONS

AA3528APR2C/A



Kingbright	
P/NO: AA3528Axxx	
QTY: 1,500 pcs	Q.C. Q C xx xx xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	