



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

### Features

- 3.2mmx1.6mm SMT LED, 1.05mm 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

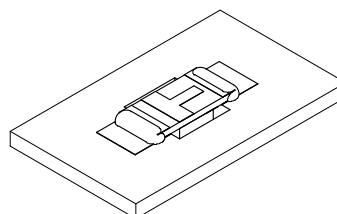
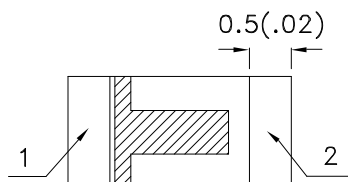
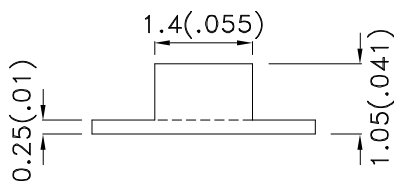
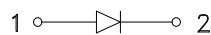
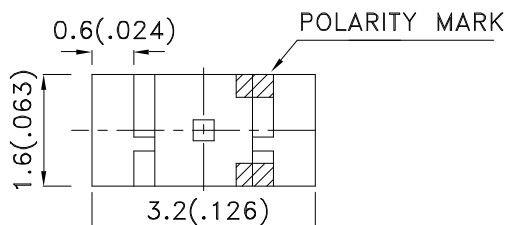
The Blue source color devices are made with InGaN Light Emitting Diode.

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



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$  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]<br>@ 20mA |      | Viewing<br>Angle [1] |
|----------------------|--------------|-------------|------------------------|------|----------------------|
|                      |              |             | Min.                   | Typ. | 2θ1/2                |
| APTR3216PBC/Z-PRV-SI | Blue (InGaN) | WATER CLEAR | 70                     | 180  | 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 |
|--------|--------------------------|--------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Blue   | 458  |      | nm    | IF=20mA         |
| λD [1] | Dominant Wavelength      | Blue   | 465  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Blue   | 22   |      | nm    | IF=20mA         |
| C      | Capacitance              | Blue   | 110  |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Blue   | 3.2  | 3.7  | V     | IF=20mA         |
| IR     | Reverse Current          | Blue   |      | 10   | uA    | VR=5V           |

Notes:

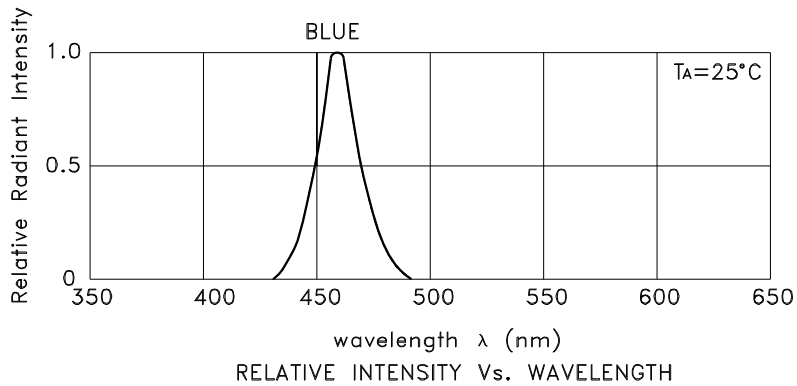
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

| Parameter                | Blue           | Units |
|--------------------------|----------------|-------|
| Power dissipation        | 111            | 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 |       |

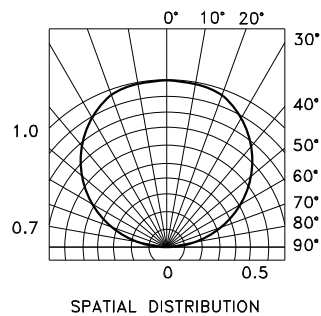
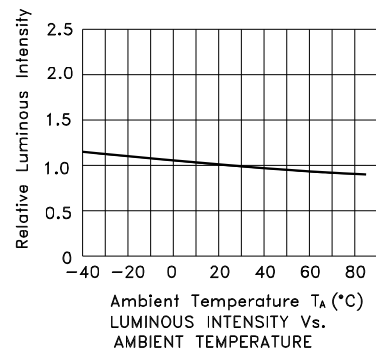
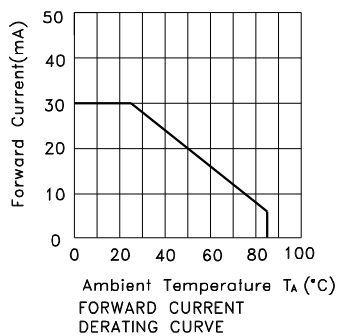
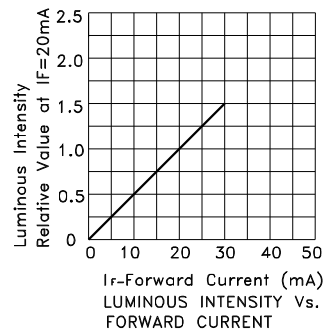
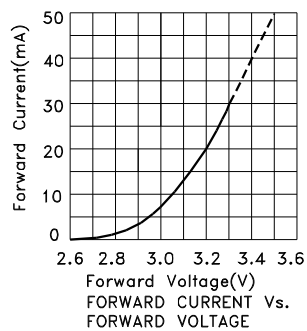
Note:

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



Blue

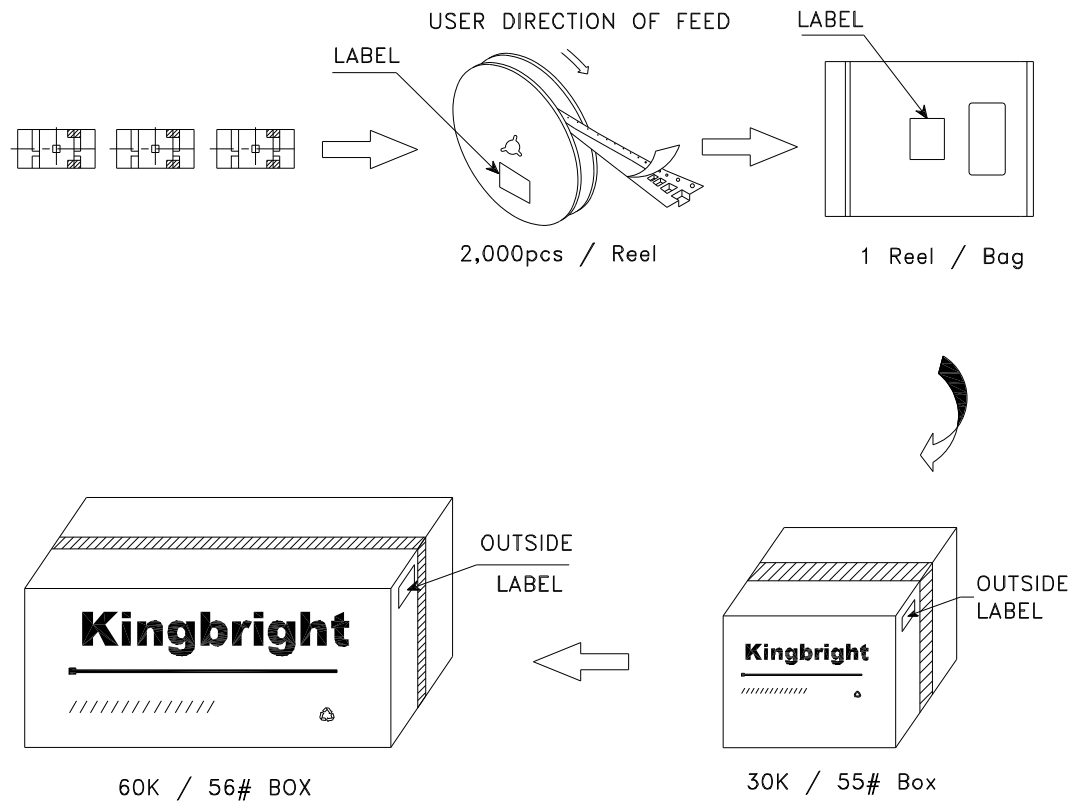
APTR3216PBC/Z-PRV-SI





PACKING & LABEL SPECIFICATIONS

APTR3216PBC/Z-PRV-SI



|                                                                                      |                      |     |
|--------------------------------------------------------------------------------------|----------------------|-----|
| <b>Kingbright</b>                                                                    |                      |     |
| P/N: APTR3216xxx                                                                     |                      |     |
| QTY: 2,000 pcs                                                                       | Q.C.                 | Q C |
| S/N: XXXX                                                                            | xx xx xxxx<br>PASSED |     |
| CODE: XXX                                                                            |                      |     |
| LOT NO:                                                                              |                      |     |
|  |                      |     |
| XXXXXXXXXXXXXXXXXXXXXXX                                                              |                      |     |
| RoHS Compliant                                                                       |                      |     |

# Mouser Electronics

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