

PRELIMINARY SPEC



ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: ACPSA04-41PBWA/A

Blue

Features

- 0.4 INCH CHARACTER HEIGHT.
- LOW CURRENT OPERATION.
- HIGH CONTRAST AND LIGHT OUTPUT.
- CATEGORIZED FOR LUMINOUS INTENSITY.
- MECHANICALLY RUGGED.
- GRAY FACE,WHITE SEGMENT.
- PACKAGE : 400PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

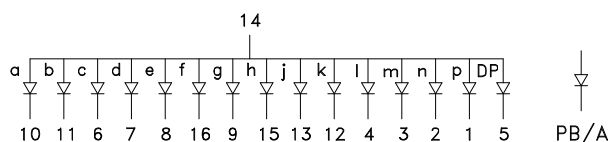
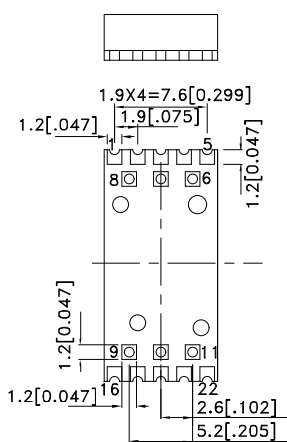
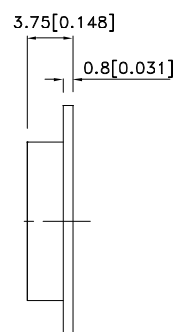
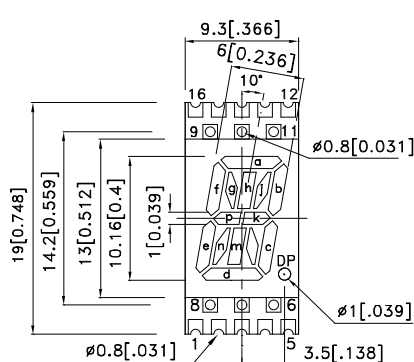
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

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 & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.



Selection Guide

| Part No. | Dice | Lens Type | Iv (ucd) [1] @ 10mA | | Description |
|------------------|--------------|----------------|------------------------|------|------------------------------------|
| | | | Min. | Typ. | |
| ACPSA04-41PBWA/A | Blue (InGaN) | WHITE DIFFUSED | 800 | 2900 | Common Anode, Rt. Hand Decimal. |

Note:

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

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|--------|------|------|-------|-----------------|
| λ_{peak} | Peak Wavelength | Blue | 468 | | nm | IF=20mA |
| λ_D [1] | Dominant Wavelength | Blue | 470 | | nm | IF=20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Blue | 21 | | nm | IF=20mA |
| C | Capacitance | Blue | 100 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Blue | 3.2 | 4.0 | V | IF=20mA |
| IR | Reverse Current | Blue | | 10 | uA | VR=5V |

Notes:

1.Wavelength: +/-1nm.

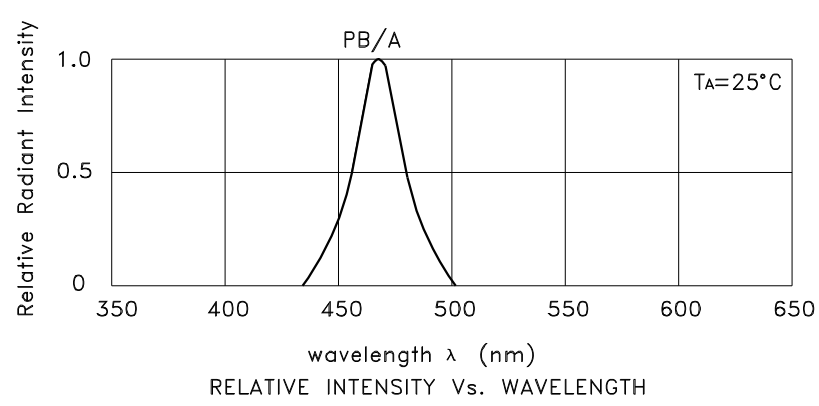
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

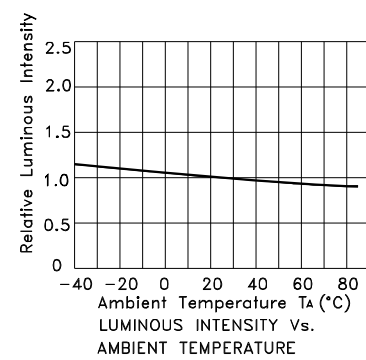
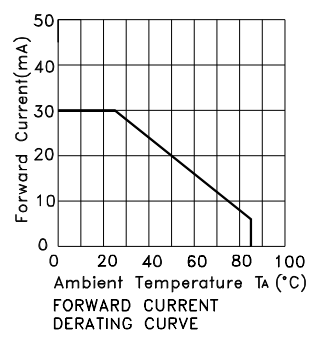
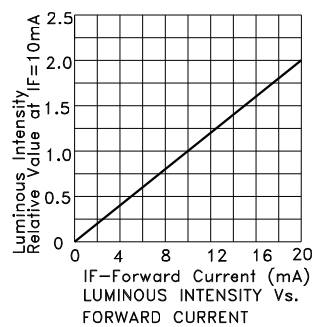
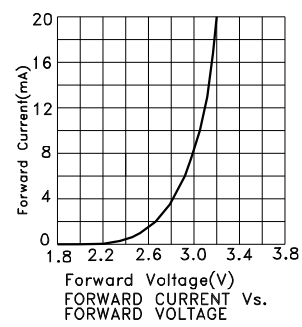
| Parameter | Blue | Units |
|---------------------------------|----------------|-------|
| Power dissipation | 120 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 100 | mA |
| Reverse Voltage | 5 | V |
| Operating / Storage Temperature | -40°C To +85°C | |

Note:

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

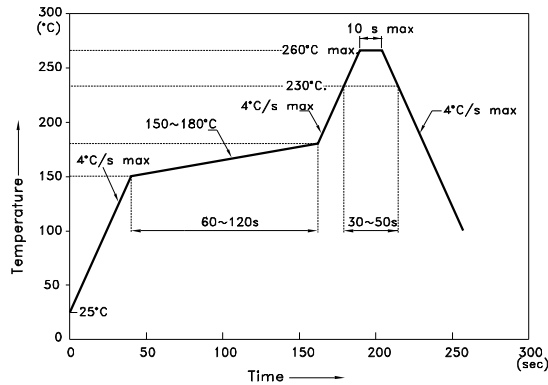


Blue ACPSA04-41PBWA/A



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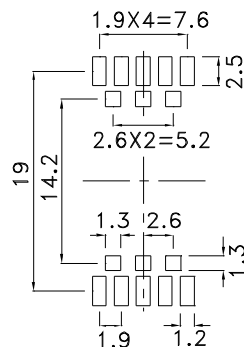
Reflow Soldering Profile For Lead-free SMT Process.



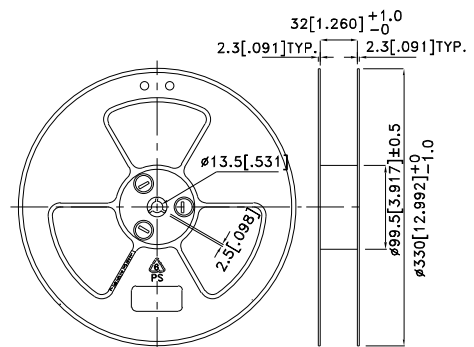
NOTES:

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

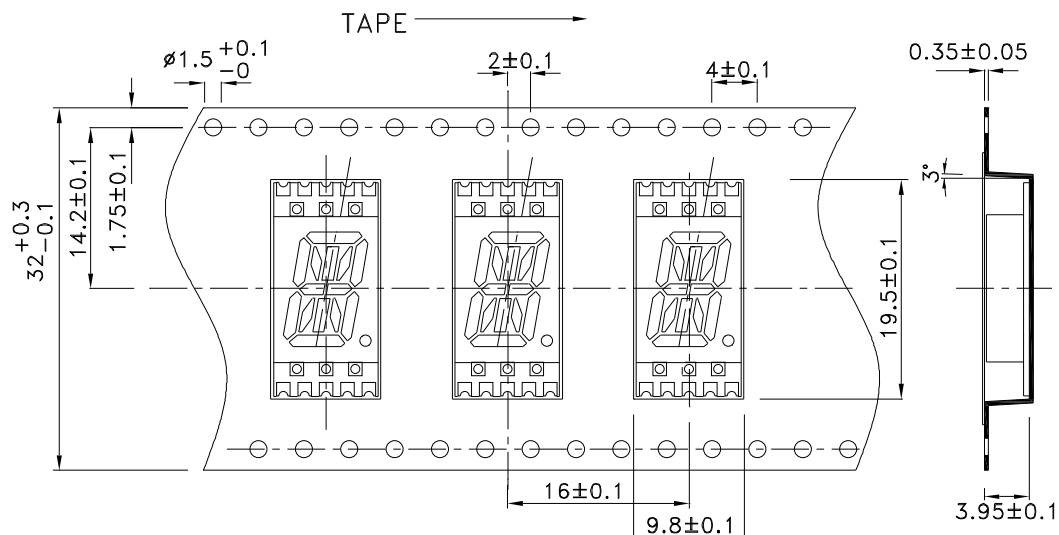
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension

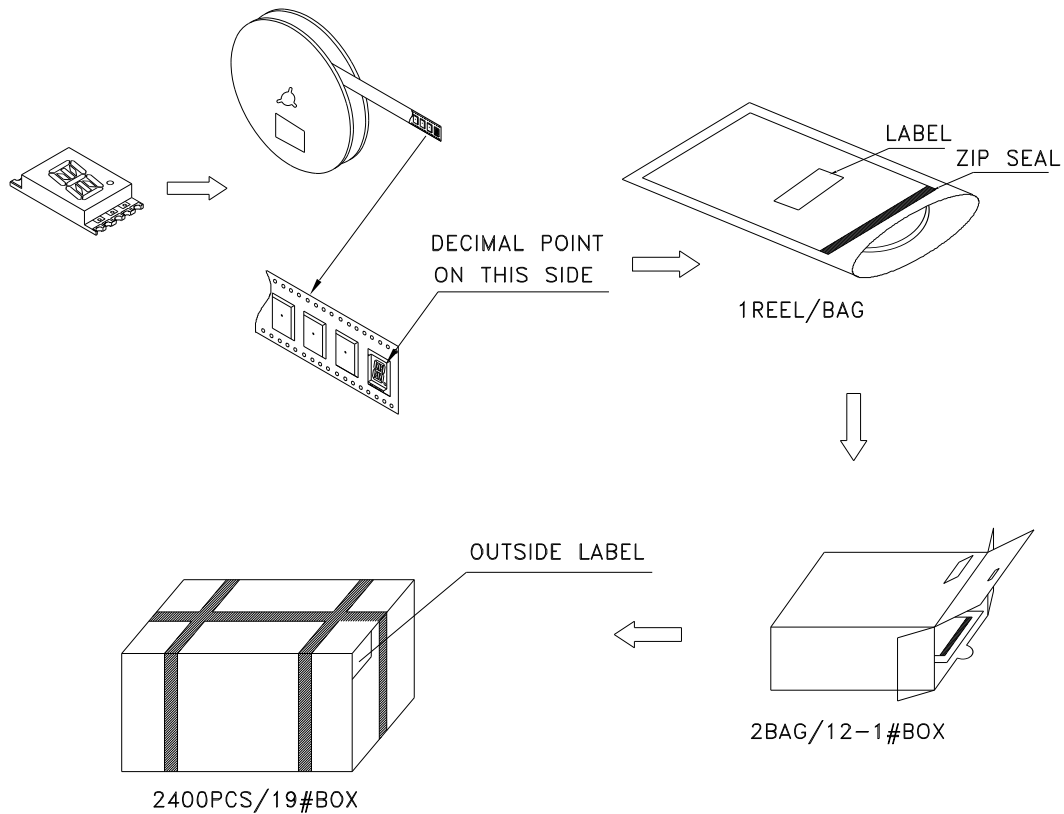


Tape Specifications (Units : mm)

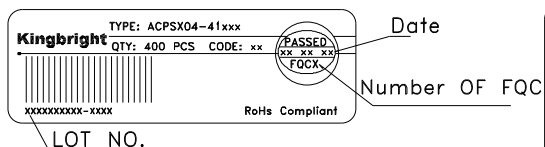


PACKING & LABEL SPECIFICATIONS

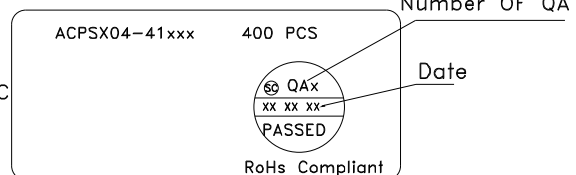
ACPSA04-41PBWA/A



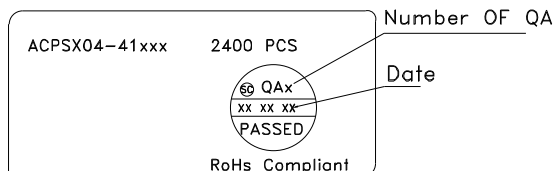
Inside LABEL Paste On The Tape-pipe



Outside LABEL Paste On The BAG



Outside LABEL Paste On The 19#Box



Outside LABEL Paste On The 12-1#Box

