Kingbright

**T-1 (3mm) SOLID STATE LAMP**

PRELIMINARY SPEC

Part Number: L-7104UVC-B Ultraviolet

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

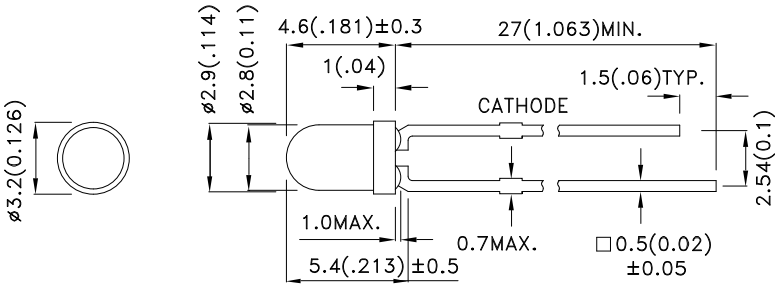
## Features

- Low power consumption.
- Popular T-1 diameter package.
- General purpose leads.
- Reliable and rugged.
- Long life - solid state reliability.
- Available on tape and reel.
- RoHS compliant.

## Description

The source color devices are made with InGaN on SiC Light Emitting Diode.
This device radiates intense ultraviolet (UV) light when operated .Most of the UV light emitted is not visible.
Exposure to UV radiation can be harmful to your health.
Protect your eyes and skin during operation.
Do not look directly at the device during operation.
Exposure to UV light ,even for a brief period, can damage your eyes.
Do not operate the device unless you have had proper safety training and take appropriate precautions.
Do not permit children or untrained personnel to operate the device.
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 ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No. | Dice | Lens Type | Φe (mW) [2] @ 20mA | | Viewing Angle [1] |
|---|---|---|---|---|---|
| | | | Min. | Typ. | 2θ1/2 |
| L-7104UVC-B | Ultraviolet (InGaN) | WATER CLEAR | 7 | 20 | 34° |

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2.Radiant flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

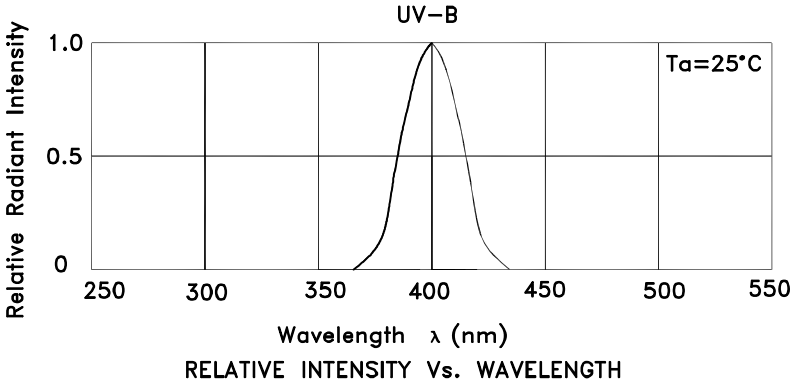
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| λpeak | Peak Wavelength | Ultraviolet | 400 | | nm | $I_F$=20mA |
| λD [1] | Dominant Wavelength | Ultraviolet | 395 | | nm | $I_F$=20mA |
| Δλ1/2 | Spectral Line Half-width | Ultraviolet | 30 | | nm | $I_F$=20mA |
| C | Capacitance | Ultraviolet | 30 | | pF | $V_F$=0V;f=1MHz |
| $V_F$ [2] | Forward Voltage | Ultraviolet | 3.3 | 4 | V | $I_F$=20mA |
| $I_R$ | Reverse Current | Ultraviolet | | 10 | uA | $V_R$ = 5V |

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

## Absolute Maximum Ratings at TA=25°C

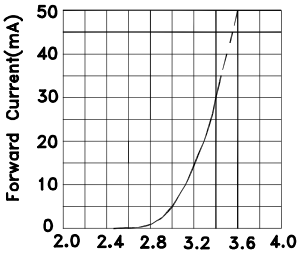
| Parameter | Ultraviolet | Units |
|---|---|---|
| Power dissipation | 120 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 100 | mA |
| Reverse Voltage | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | |
| Lead Solder Temperature [2] | 245°C For 3 Seconds | |
| Lead Solder Temperature [3] | 245°C For 5 Seconds | |

Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
3. 5mm below package base.

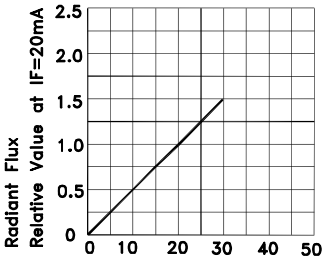


RELATIVE INTENSITY Vs. WAVELENGTH

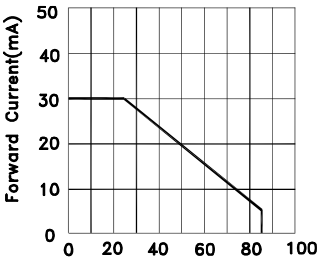
**Ultraviolet** **L-7104UVC-B**



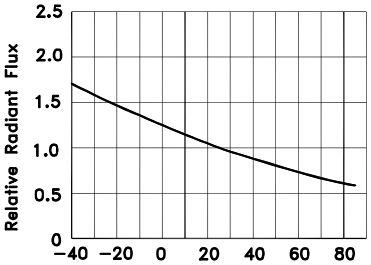
FORWARD CURRENT Vs.
FORWARD VOLTAGE



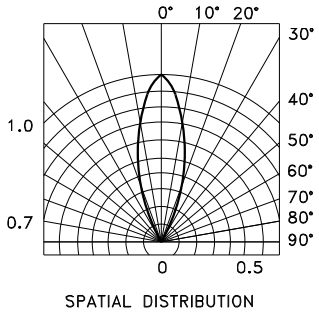
RADIANT FLUX Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



RADIANT FLUX Vs.
AMBIENT TEMPERATURE



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**PACKING & LABEL SPECIFICATIONS** **L-7104UVC-B**