Kingbright

T-1 (3mm) SOLID STATE LAMP

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

P/N: W7104UVC ULTRAVIOLET

PRELIMINARY SPEC

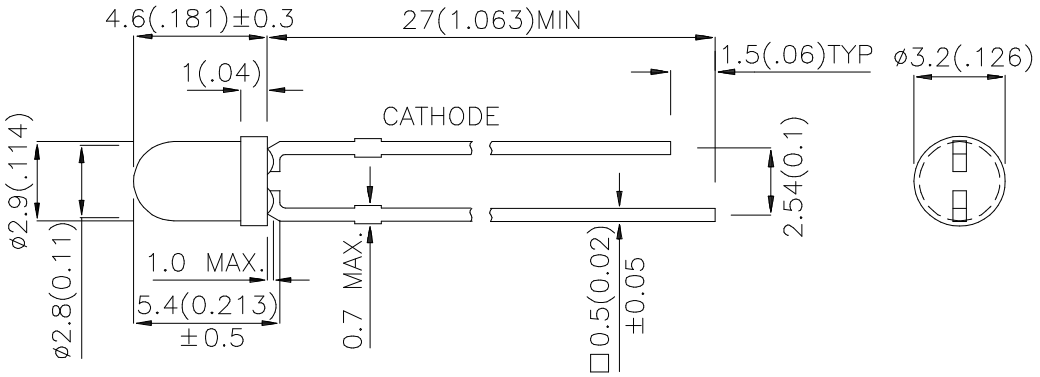
Features

- ●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 lead emerge from the package.
4. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Φe (mW) @ 20mA		Viewing Angle
			Min.	Typ.	2θ1/2
W7104UVC	ULTRAVIOLET (InGaN)	WATER CLEAR	7	20	34°

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

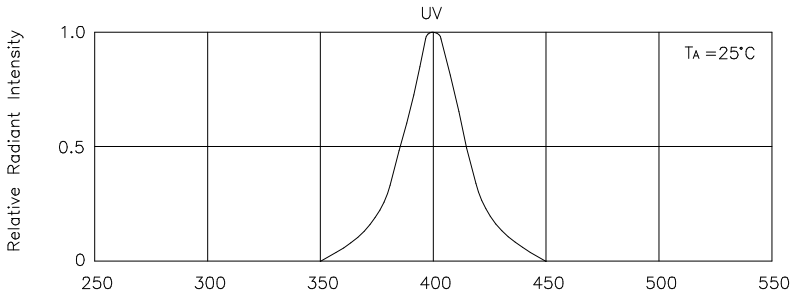
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Ultraviolet	400		nm	I_F=20mA
λD	Dominant Wavelength	Ultraviolet	395		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Ultraviolet	26		nm	I_F=20mA
C	Capacitance	Ultraviolet	30		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	Ultraviolet	3.8	4.2	V	I_F=20mA
I_R	Reverse Current	Ultraviolet		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

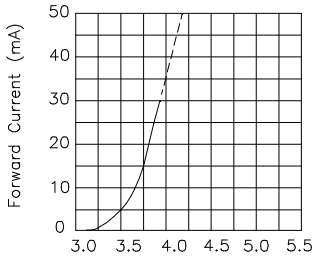
Parameter	Ultraviolet	Units
Power dissipation	100	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

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

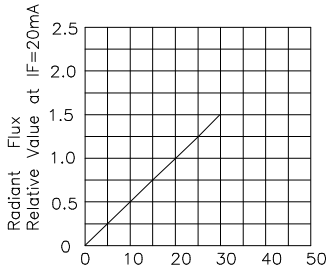


RELATIVE INTENSITY Vs. WAVELENGTH

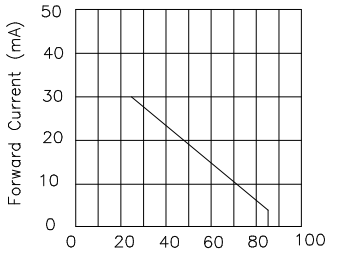
Ultraviolet **W7104UVC**



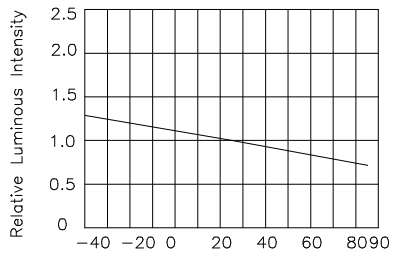
FORWARD CURRENT Vs.
FORWARD VOLTAGE



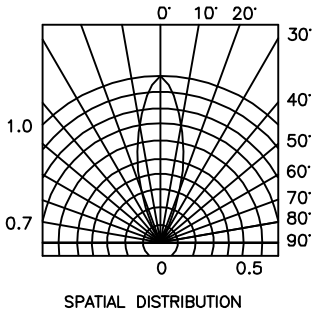
RADIANT FLUX Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

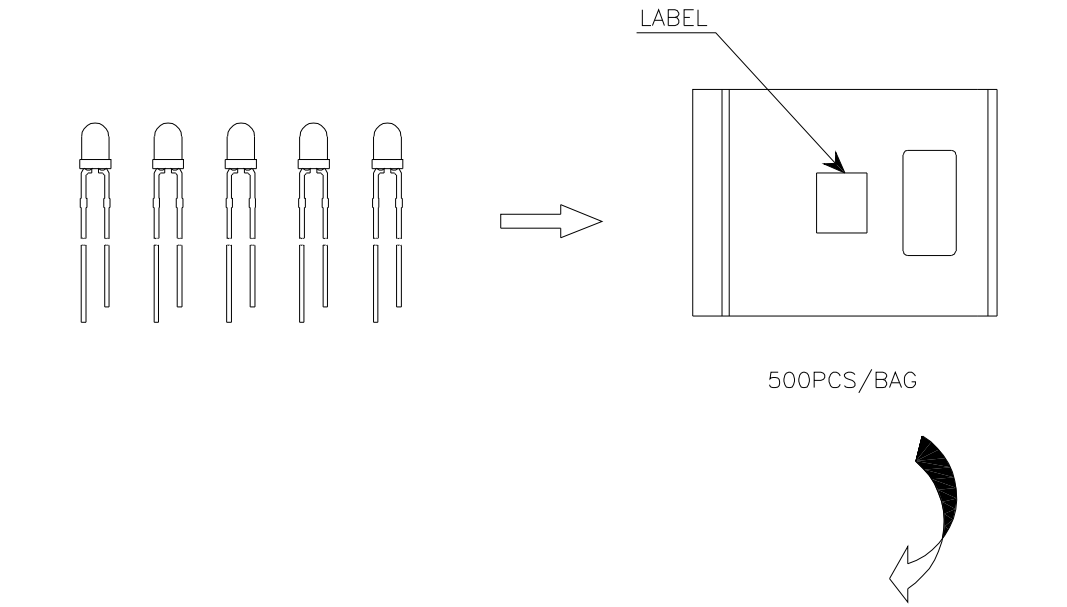


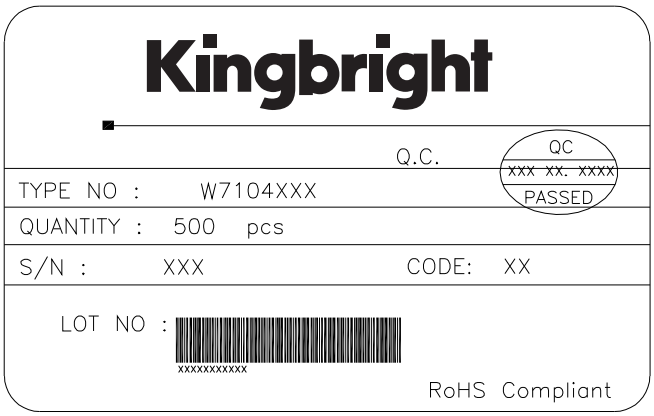
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

PACKING & LABEL SPECIFICATIONS **W7104UVC**





Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity/ luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity/ Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters