LIGHT EMITTING DIODE SPECIFICATION

DESCRIPTION:	IE-3535UVC-270-10mW-CE
REVISION：	V2.2
ISSUE DATE：	2023-09-27

Features:

- ●Long operating life
- ●Low Power Consumption
- ●Wide Viewing Angle
- ●RoHS Compliant
- ●Quartz Glass Lens

Application:

- ●Sterilization
- ●UV curing
- ●Bio-analysis/detection

Part Number	Dice Material	Emitted Color	Lens Color
IE-3535UVC-270-10mW·	InGaN	UVC	Water Clear

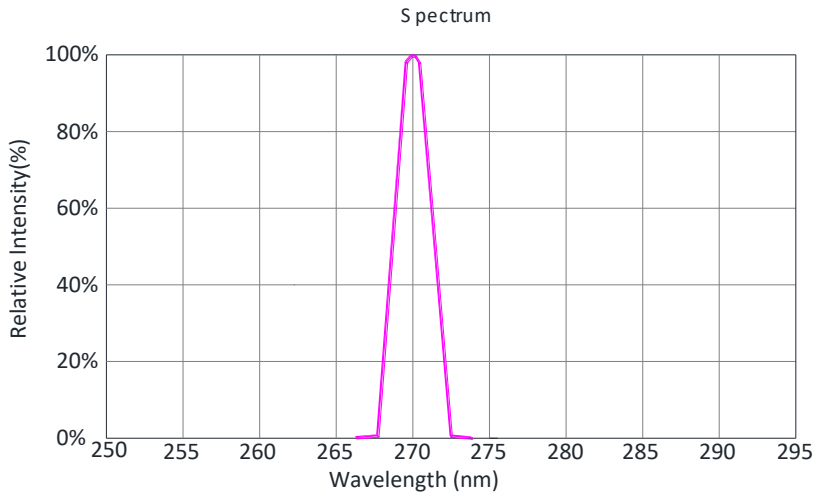
Electro-Optical Characteristics(Ta=25℃)

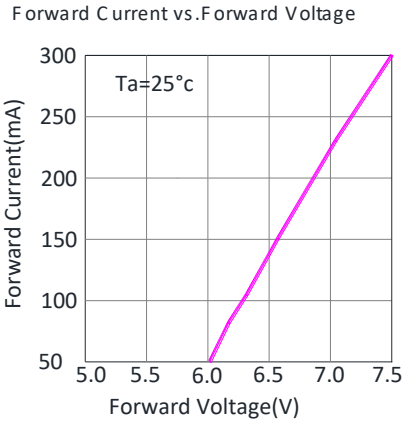
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Radiation power	Φe	10	15	20	mW	IF=100mA
Forward Voltage	VF	5.5	6.5	7.5	v	
Dominant Wavelength	λd	265	270	275	nm	
Radiation Bandwidth	△λ	-	10	-	nm	
Viewing Angle	2θ1/2	-	120	-	deg	
Reverse Current	IR	-	-	10	uA	VR=5V

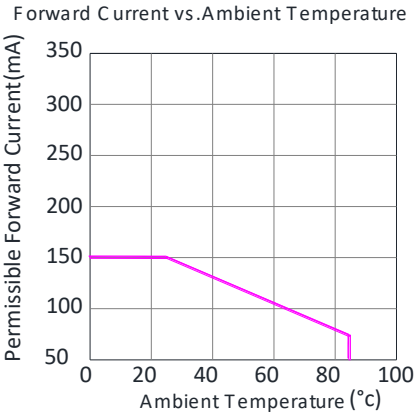
Absolute Maximum Ratings(Ta=25℃)

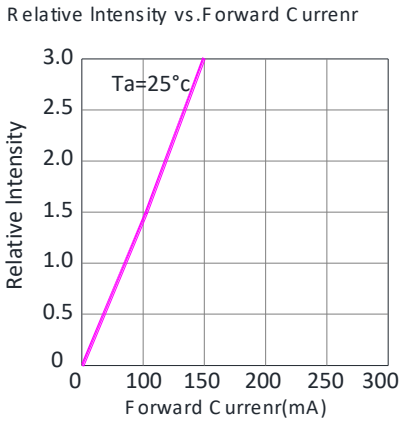
Parameter	Symbol	Max.	Unit
Power Dissipation	Pd	500	mW
Peak Forward Current(1/10 Duty Cycle, 0.1ms Pulse Width)	IPF	150	mA
Forward Current	IF	100	mA
Reverse Voltage	VR	5	v
Thermal Resistance	R th	6.5	°C/W
Junction Temperature	Tj	90	°C
Electrostatic Discharge	ESD	3000	v
Operating Temperature Range	Topr	-40to+85	°C
Storage Temperature Range	Tstg	-40to+90	°C
Reflow Soldering	Tsld	260℃for 10secs	

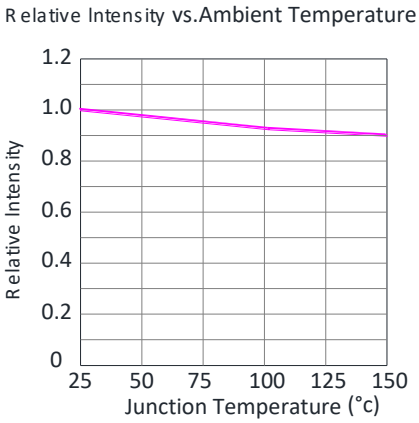
Optical & Electrical Characteristics

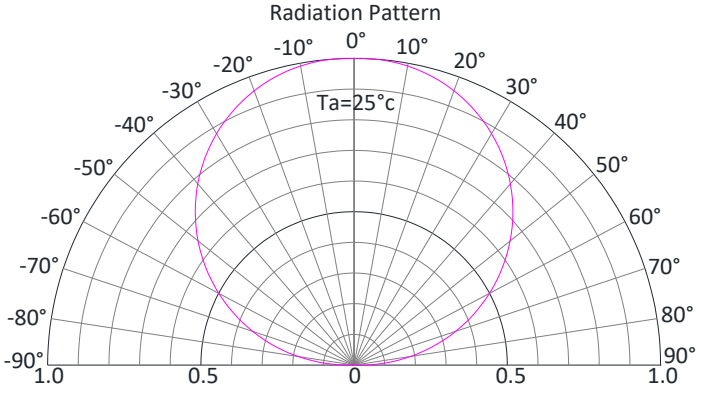












Bin Limits

Bin Range Of Radiant Intensity (Unit:mw)

Bin Code	Min	Max	Condition
L1	10	15	IF=100mA
L2	15	20	
L3	-	-	

Bin Range Of Forward Voltage (Unit:V)

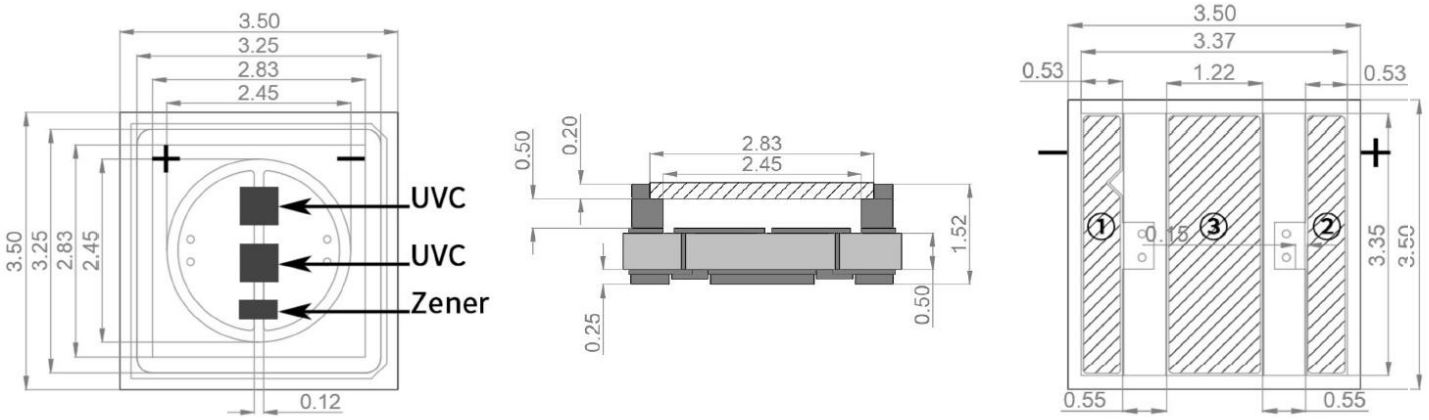
Bin Code	Min	Max	Condition
V1	5.5	6.0	IF=100mA
V2	6.0	6.5	
V3	6.5	7.0	
V4	7.0	7.5	
V5	-	-	

Notes:

1.Tolerance of Luminous Intensity ±10%

2.Tolerance of Forward Voltage ±0.1V

Product size (Unit:mm)

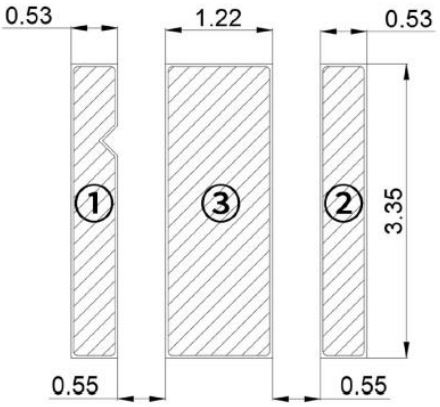


Determine the number of built-in chips based on customer needs

NOTES：

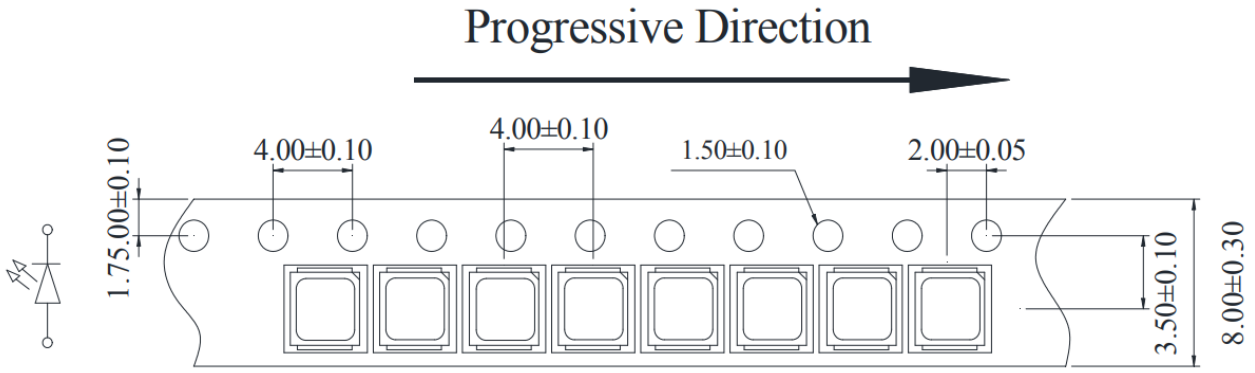
1. All dimensions are in millimeters (inches)
2. Tolerances are ±.25mm (0.01inch) unless otherwise noted

Recommended Soldering Pad Design (Unit:mm)

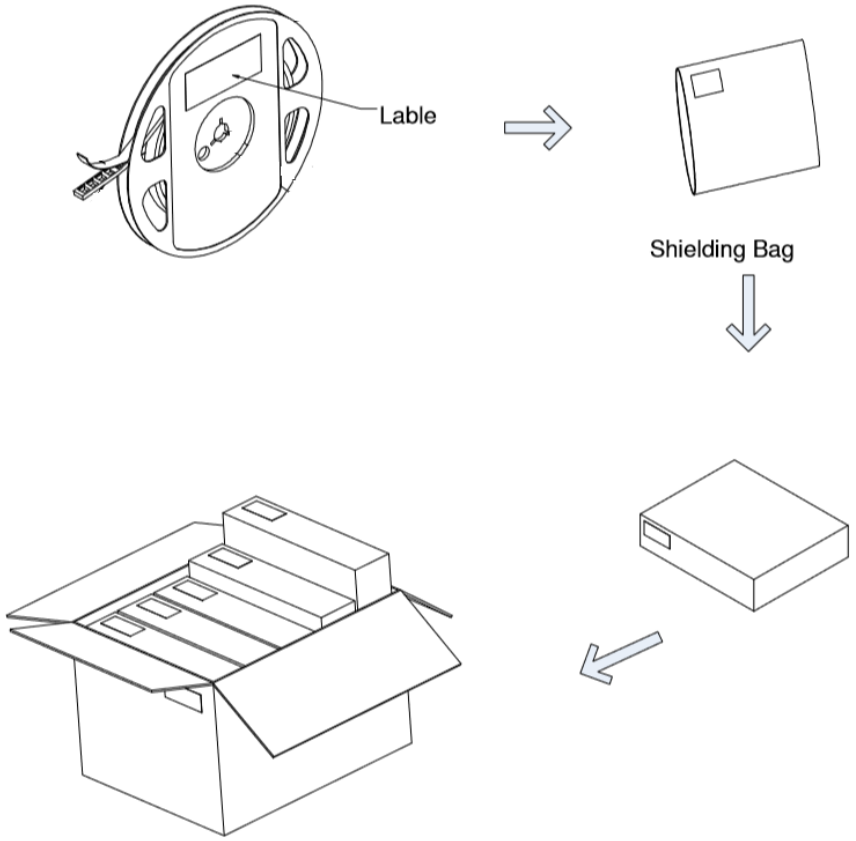


Taping and package Spec

●Tape Specification:1,000pcs Per Reel



Packaging



LabelStyle

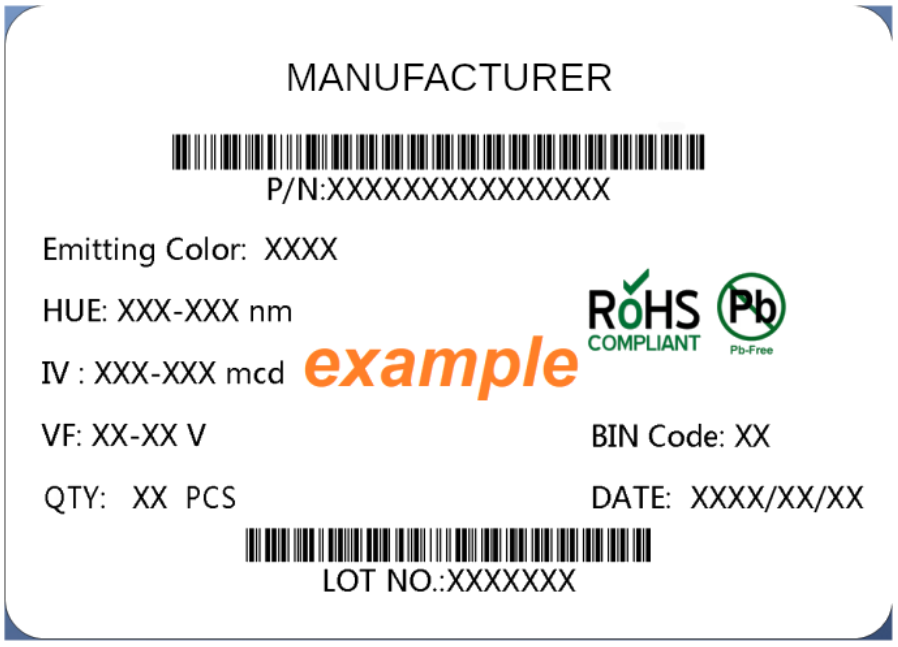
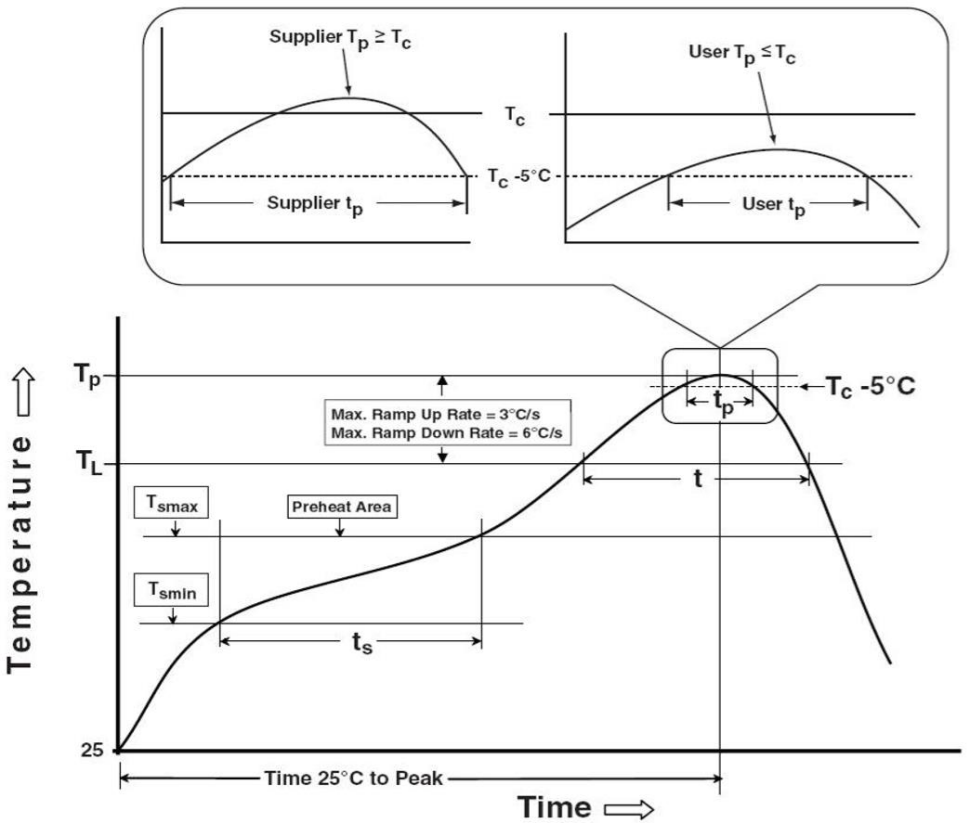


Table of Classification Reflow Profiles

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat & Soak Temperature min (Tsmin) Temperature max (Tsmax) Time (Tsmin to Tsmax) (ts)	100 °C 150°C 60-120 seconds	150 °C 200 °C 60-120 seconds
Average ramp-up rate (Tsmax to Tp)	3 °C/second max	3 °C/second max
Liquidous temperature (TL) Time at liquidous (tL)	183 °C 60-150 seconds	217 °C 60-150 seconds
Peak package body temperature (Tp)*	230 °C ~235 °C	255 °C ~260 °C
Classification temperature (Tc)	235 °C	260 °C
Time (tp) within 5 °C of the specified Classification temperature (Tc)	20 seconds	30 seconds
Average ramp-down rate (Tp to Tsmax)	6 °C/second max	6 °C/second max
Time 25 °C to peak temperature	6 minutes max	8 minutes max

1. Tolerance for peak profile temperature (Tp) is defined as a supplier minimum and a user maximum.

2.Tolerance for time at peak profile temperature (tp) is defined as a supplier minimum and a user maximum.



Precautions

1. Storage：

●Moisture proof and anti-electrostatic package with moisture absorbent material is used, to keep moisture to aminimum.

●Before opening the package, the product should be kept at 30℃ or less and humidity less than 60% RH, and beused within a year.

●After opening the package, the product should be stored at 30℃ or less and humidity less than 10%RH, and besoldered within 24 hours (1day). It is recommended that the product be operated at the workshop condition of 30℃ or less and humidity less than 60%RH.

●If the moisture absorbent material has fade away or the LEDs have exceeded the storage time, baking treatment should be performed based on the following condition: (70±5)℃ for 24 hours.


2. Static Electricity：

Static electricity or surge voltage damages the LEDs. Damaged LEDs will show some unusual characteristic such as the forward voltage becomes lower, or the LEDs do not light at the low current. even not light.

All devices, equipment and machinery must be properly grounded. At the same time, it is recommended that wrist bands or anti-electrostatic gloves, anti-electrostatic containers be used when dealing with the LEDs.

3. Vulcanization：

LED curing is due to sulfur being in bracket and the +1 price of silver in the chemical reaction generated Ag2S in the process. It will lead to the capacity of reflecting of silver layer reducing, light color temperature drift and serious decline ,seriously affecting the performance of the product.So we should take corresponding measures to avioding vulcanization, such as to avoid using sulphur volatile substances and keeping away from high sulphur content of the material.