Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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EVERLIGHT AMERICAS

DATASHEET

EAUVA35352

1.8W Series

Introduction

The EAUVA35352 product series is a ceramic based LED with high quality and reliability that suitable for UV application.

Features

- Low power UVA LED
- Dimension 3.5mm*3.5mm*2.35mm
- ESD protection up to 8KV
- RoHS compliant
- Pb free
- EU REACH compliant
- Halogen Free compliant
- (Br<900ppm,Cl<900ppm,Br+Cl<1500ppm)

Applications

- UV Sterilization System
- UV Photo-catalyst
- UV Sensor Light

Product Nomenclature

EAUVA35352XXY

EA = Everlight Americas

UVA = UVA

3535 = 3.5mm x 3.5mm Package

2 = Angle: 120°

XX = Wavelength Range [1]

Y = Minimum Radiant Flux Spec [2]

Notes:

1. Wavelength Range

Symbol	Description
BC	360~370nm
EF	380~390nm
GH	390~400nm
IJ	400~410nm

2. Minimum Radiant Flux Spec

Symbol	Description
8	1000mW

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Max. DC Forward Current (mA)	I_F	700	mA
Max. ESD Resistance	V_B	8000	V
Thermal Resistance	R_{th}	5	K/W
Max. Junction Temperature	T_J	95	°C
Operating Temperature	T_{Opr}	-40 ~ +85	°C
Storage Temperature	T_{Stg}	-40 ~ +85	°C

PN of the EAUVA35352 series: UVA LEDs

UV, EAUVA35352 series LEDs at 500mA are listed below

Color	Order Code of EAUVA35352	Minimum Radiant Flux (mW)	Peak Wavelength (nm)	Forward Voltage (V)
Ultraviolet	EAUVA35352BC8	1000	360~370	3.0~4.0
	EAUVA35352EF8	1000	380~390	3.0~4.0
	EAUVA35352GH8	1000	390~400	3.0~4.0
	EAUVA35352IJ8	1000	400~410	3.0-4.0

Product Binning

Radiant Flux Bins

Bin Code	Minimum Radiant Flux (mW)	Maximum Radiant Flux (mW)
U2	1000	1100
U3	1100	1200
U4	1200	1300
U5	1300	1400
U6	1400	1500
U7	1500	1600

Notes:

1.Radiant flux measurement tolerance: ±10%.
2.Forward voltage bins are defined at I_F=500mA operation.

Peak Wavelength Bins

Group	Bin	Minimum Peak Wavelength (nm)	Maximum Peak Wavelength (nm)
U	36	360	370
	38	380	390
	39	390	400
	40	400	410

Notes:

1.Peak Wavelength measurement tolerance: ±1nm.
2.Forward voltage bins are defined at I_F=500mA operation.

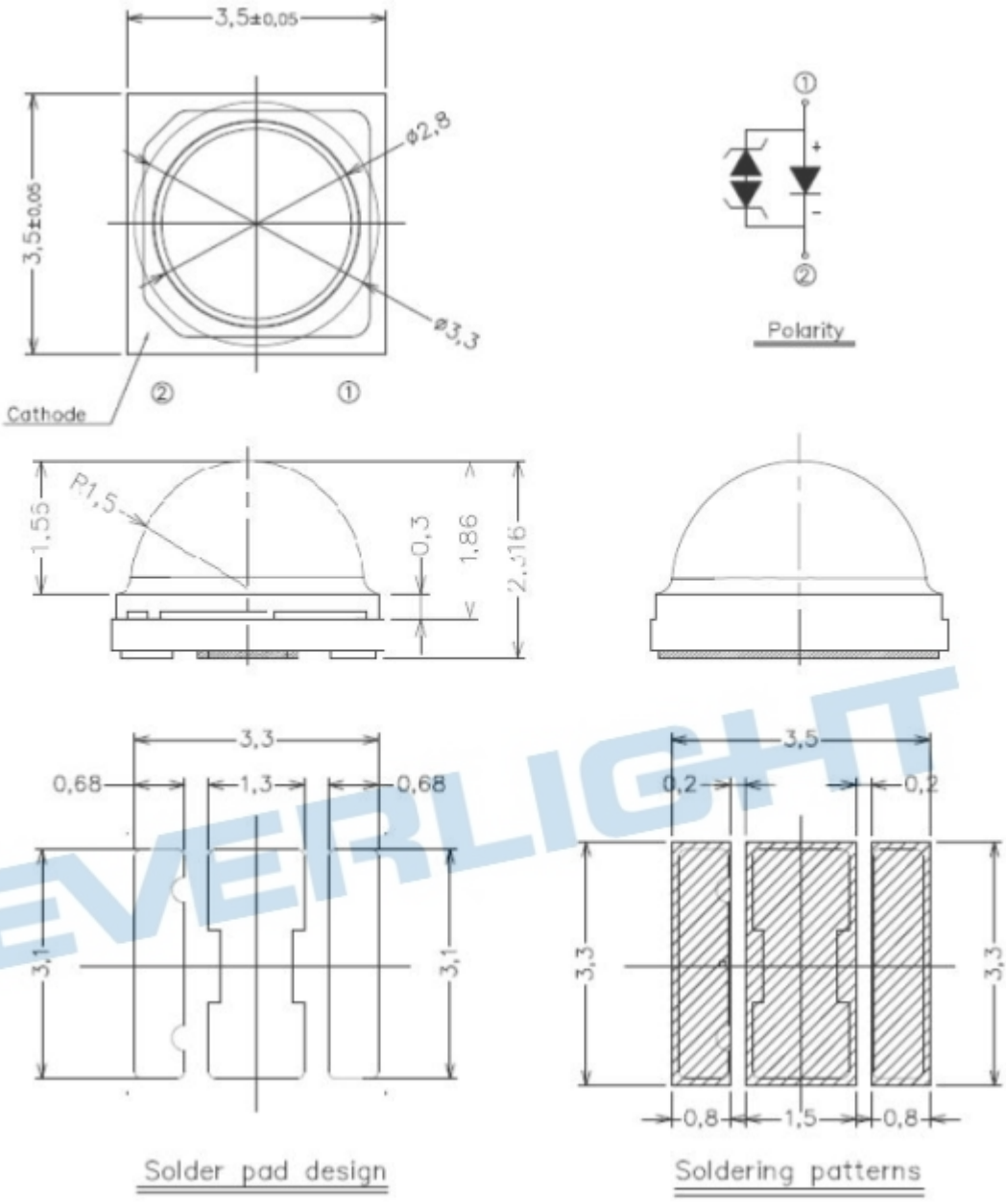
Forward Voltage Bins

Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
3032	3.0	3.2
3234	3.2	3.4
3436	3.4	3.6
3638	3.6	3.8
3840	3.8	4.0

Notes:

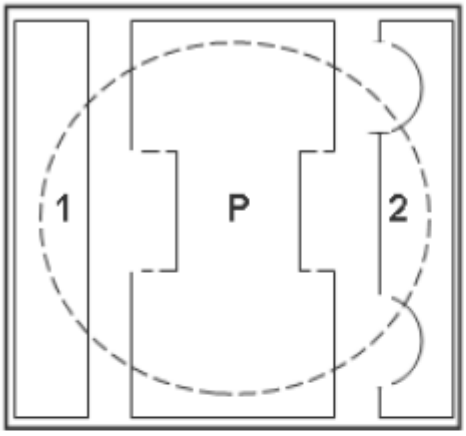
1.Forward voltage measurement tolerance: ±2%.
2.Forward voltage bins are defined at I_F=500mA operation.

Mechanical Dimension

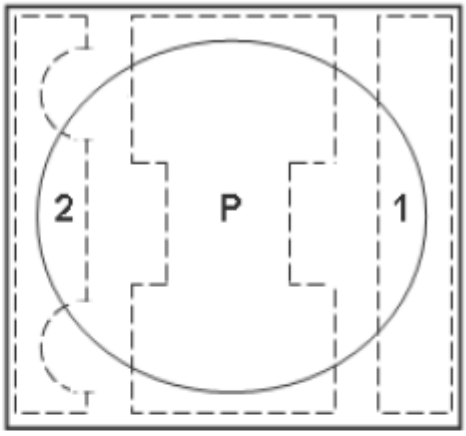


1. Dimensions are in millimeters.
2. Tolerances unless mentioned are ± 0.1mm

Mechanical Dimension



BOTTOM VIEW



TOP VIEW

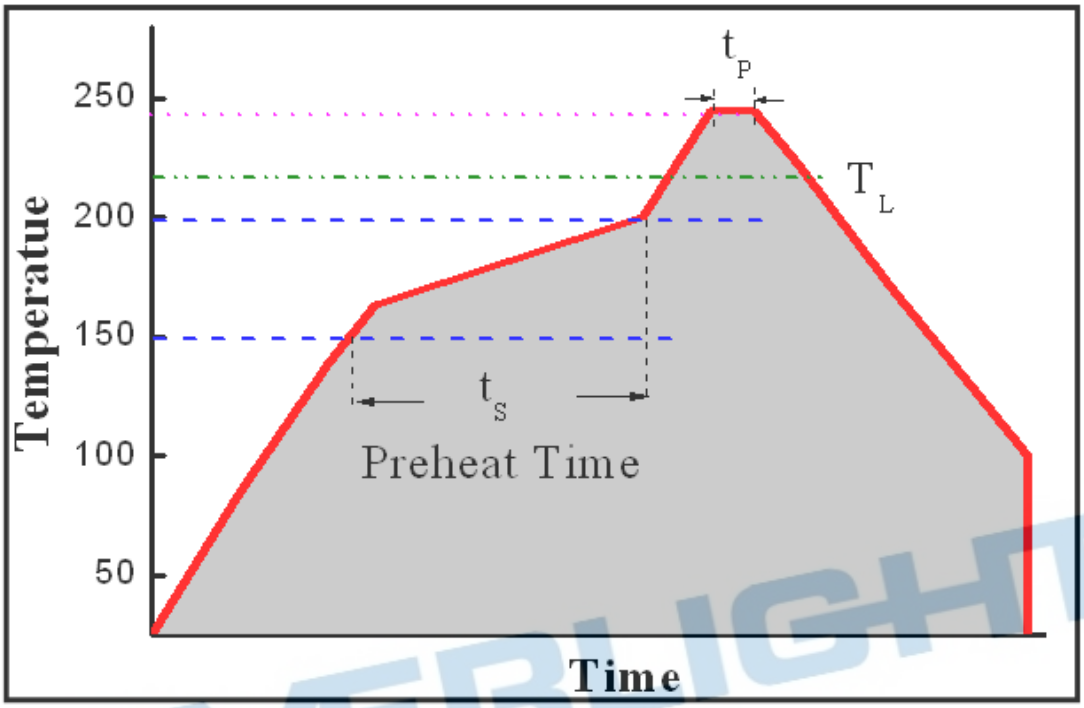
PAD	FUNCTION
1	ANODE
2	CATHODE
P	THERMAL PAD

Reflow Soldering Characteristics

For Reflow Process

a. EAUVA series are suitable for SMT processes.

b. Curing of glue in oven must be according to standard operation flow processes.



Profile Feature	Lead Free Assembly
Ramp-Up Rate	2-3 ℃/S
Preheat Temperature	150-200 ℃
Preheat Time (t_S)	60-120 S
Liquid Temperature (T_L)	217 ℃
Time maintained above T_L	60-90 S
Peak Temperature (T_P)	240±5 ℃
Peak Time (t_P)	Max 20 S
Ramp-Down Rate	3-5 ℃/S

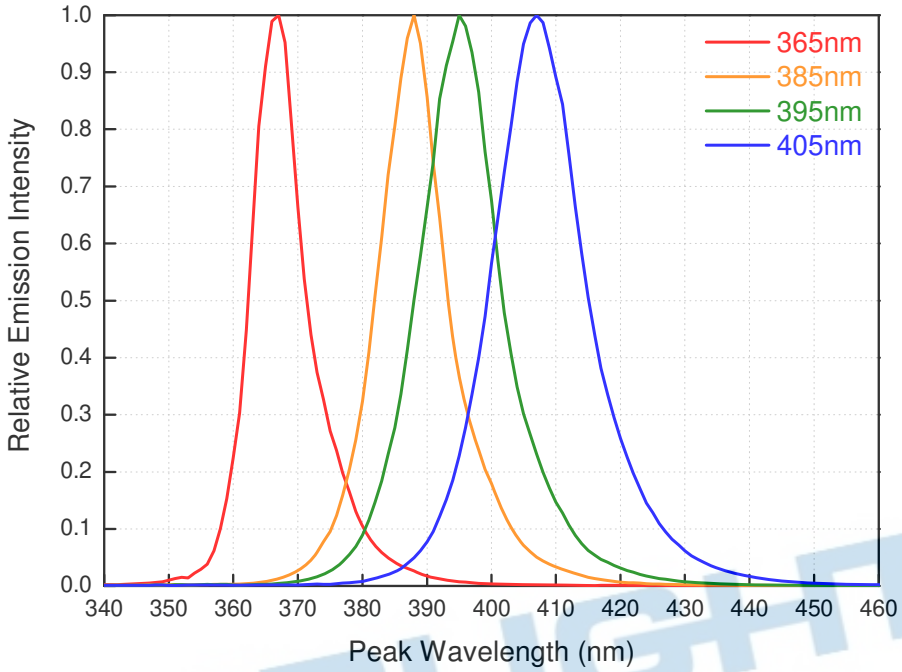
c. Reflow soldering should not be done more than twice.

d. In soldering process, stress on the LEDs during heating should be avoided.

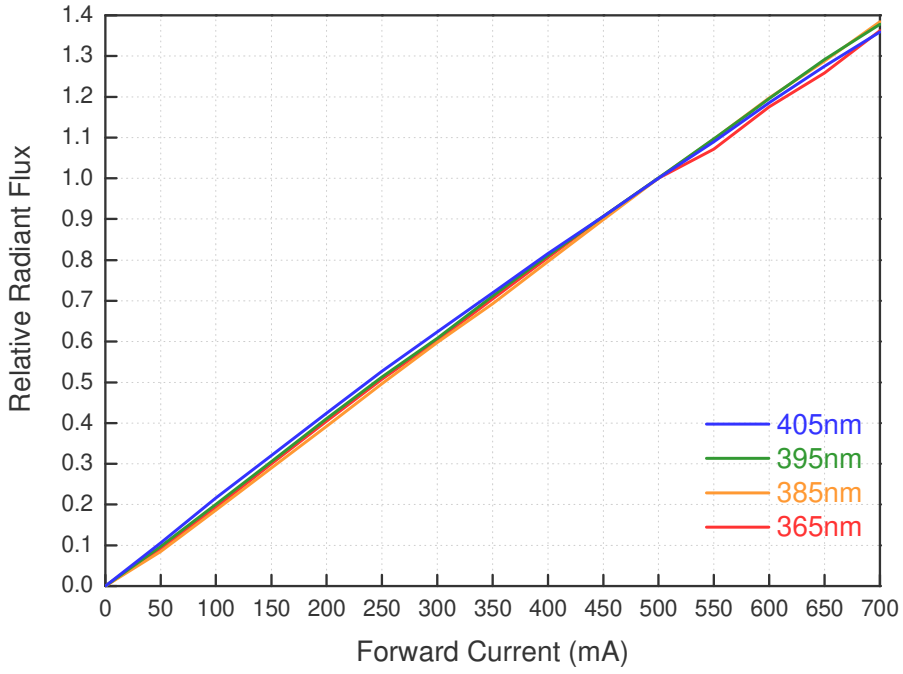
e. After soldering, do not bend the circuit board.

Typical Characteristics Curves

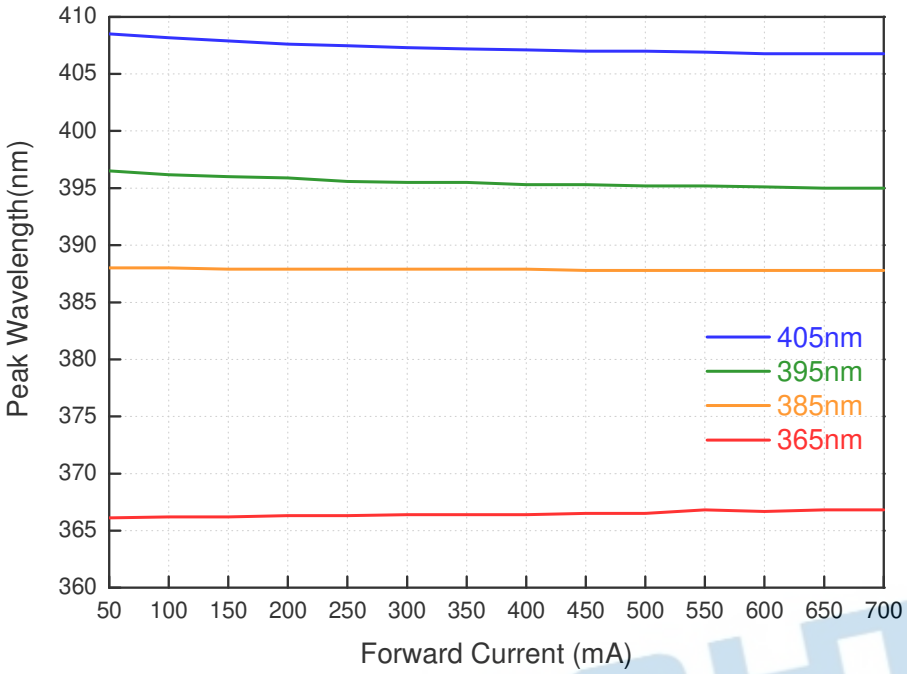
Spectrum @ Thermal Pad Temperature = 25℃



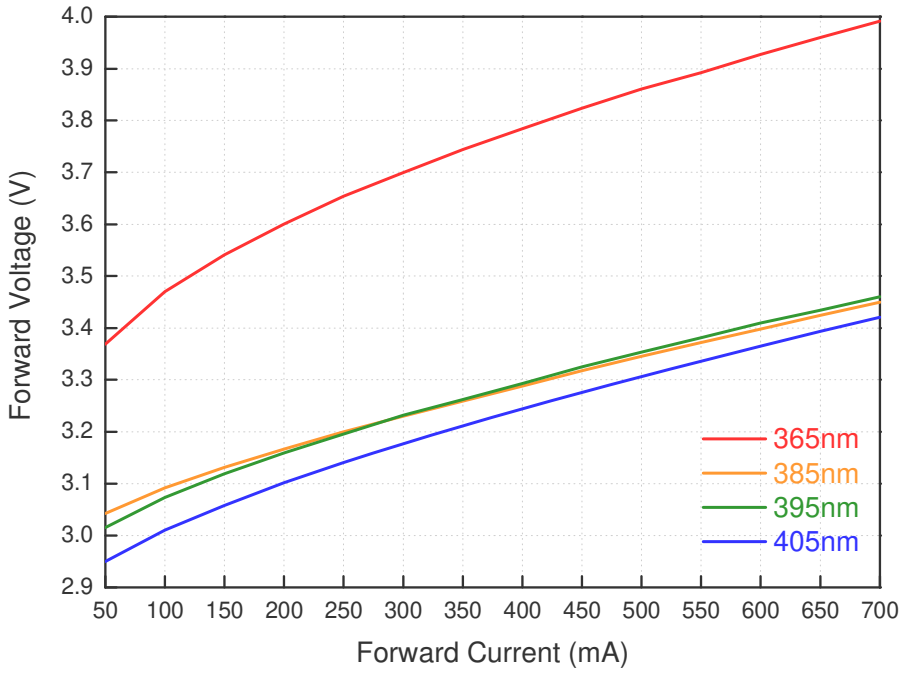
Relative Radiant Flux vs. Forward Current @ Thermal Pad Temperature = 25℃



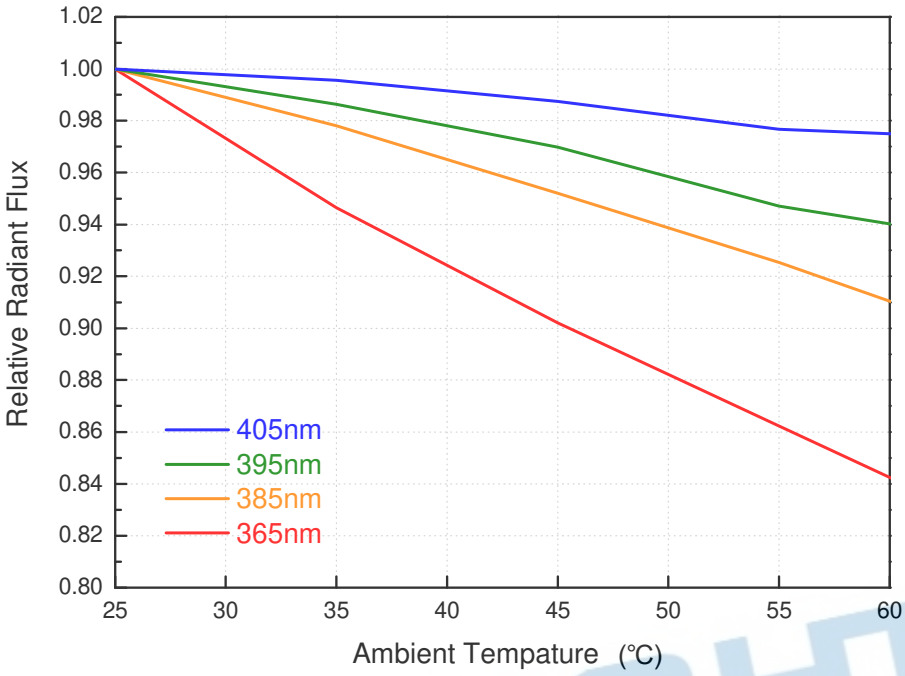
Peak Wavelength vs. Forward Current
@ Thermal Pad Temperature = 25℃



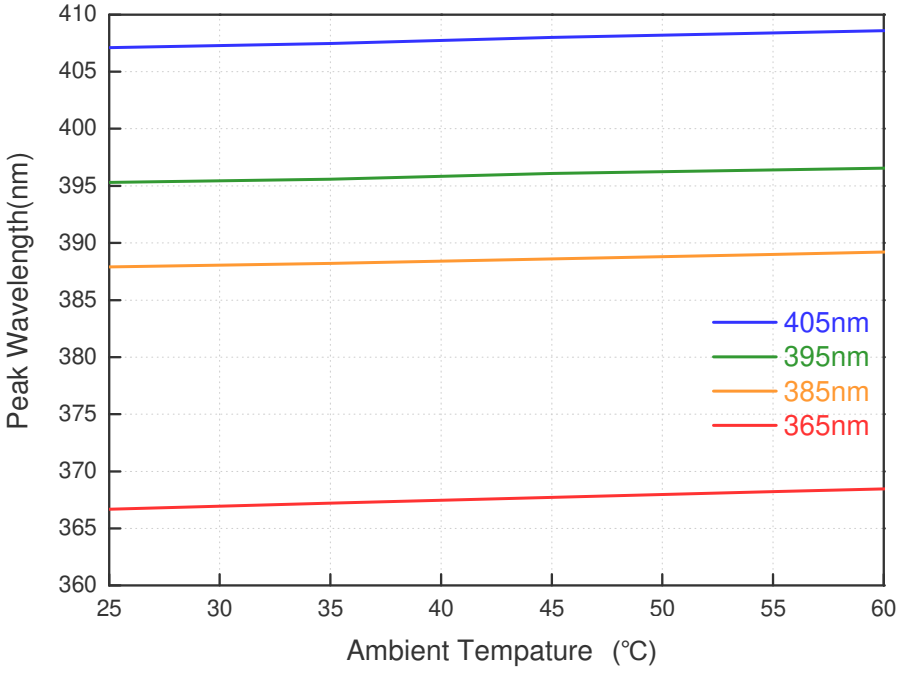
Forward Voltage vs. Forward Current
@ Thermal Pad Temperature = 25℃



Relative Radiant Flux vs. Ambient Tempature
@ Forward Current = 500mA

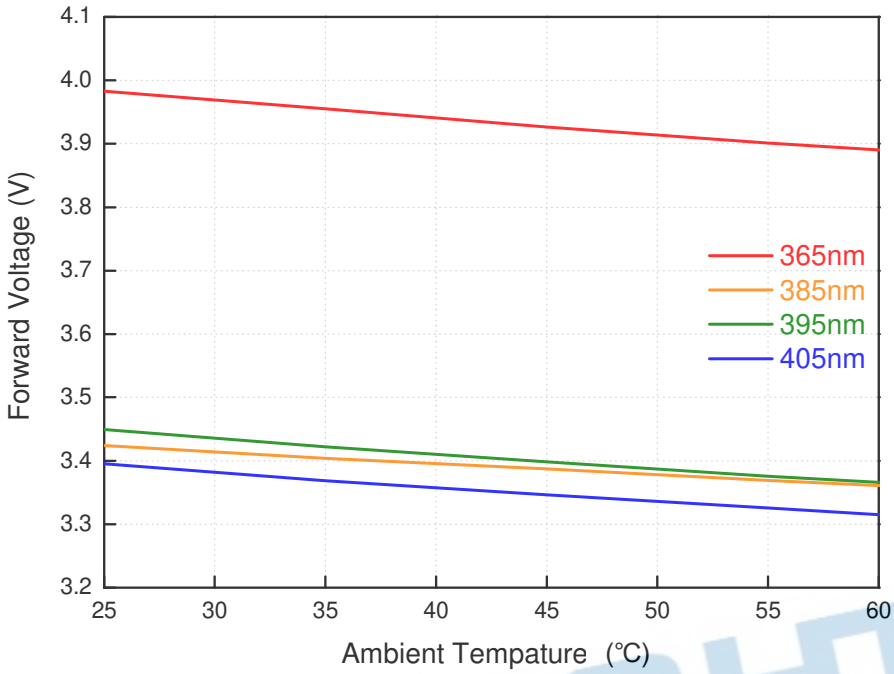


Peak Wavelength vs. Ambient Tempature
@ Forward Current = 500mA

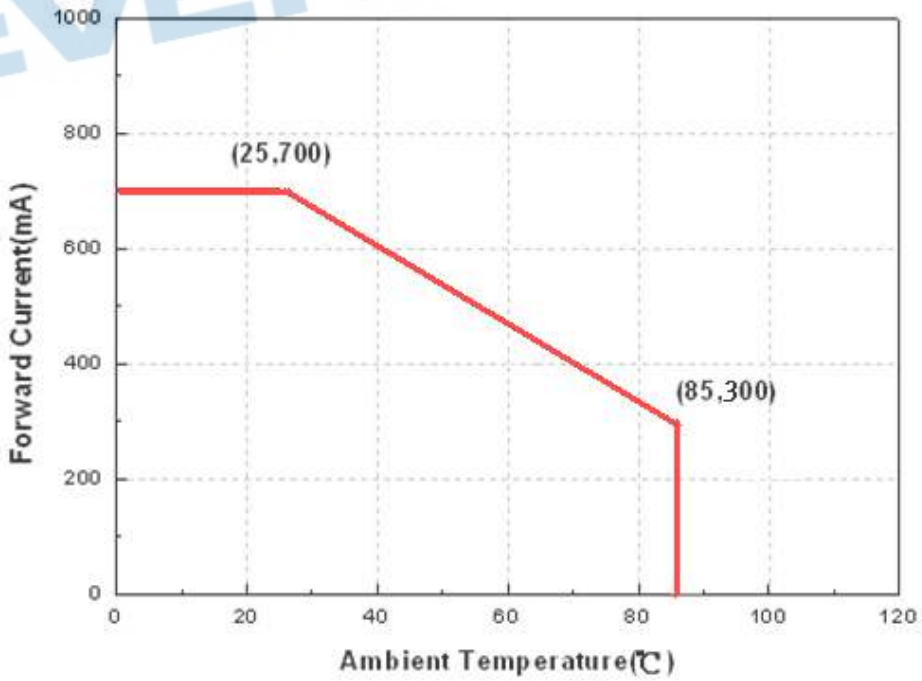


Forward Voltage vs. Ambient Tempature

@ Forward Current = 500mA

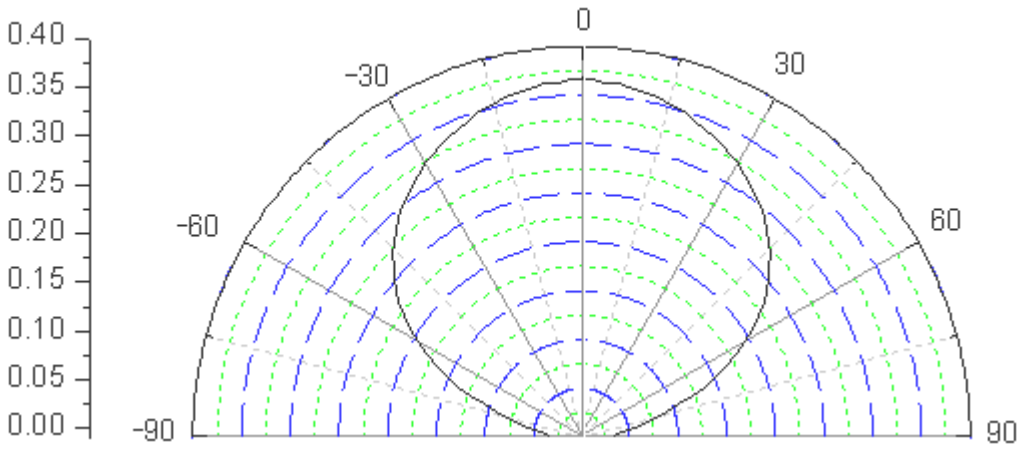


Derating Curve



Typical Radiation Patterns

Typical Diagram Characteristics of Radiation for EAUVA35352



Notes:

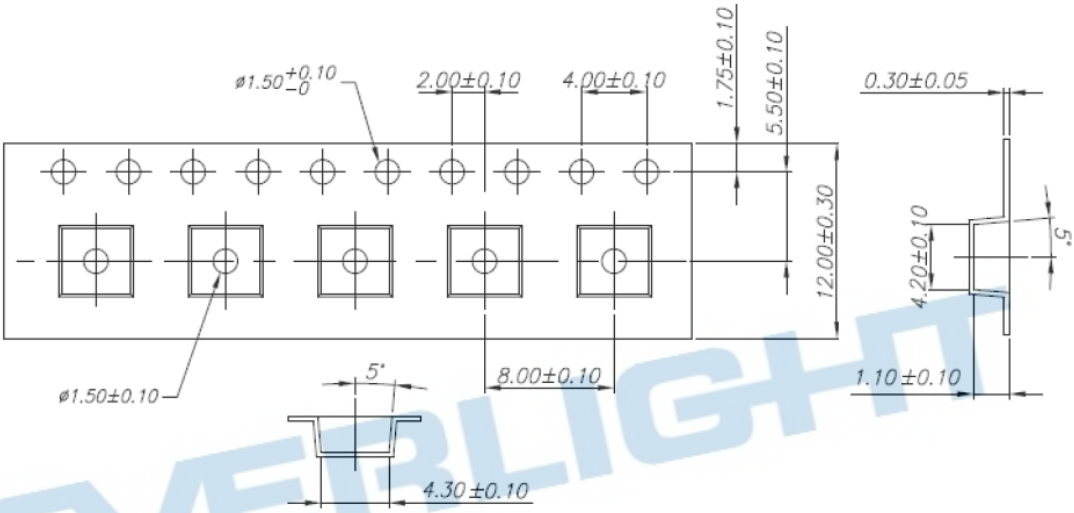
1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is ± 5° .

Emitter Tape Packaging

Carrier Tape Dimensions as the following:

Reel: 400pcs, MOQ≥ 2Kpcs(has to be a multiple of 400pcs)

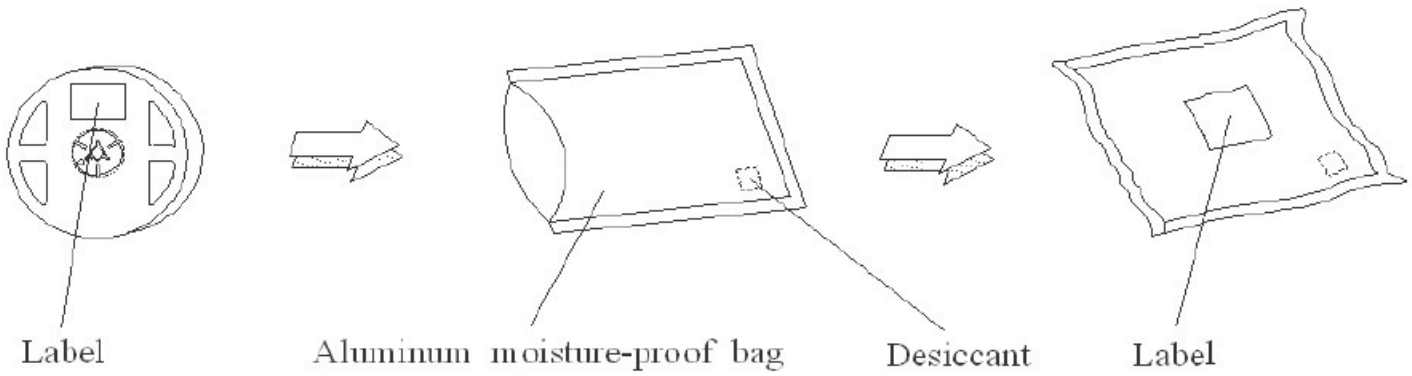
Feed Direction



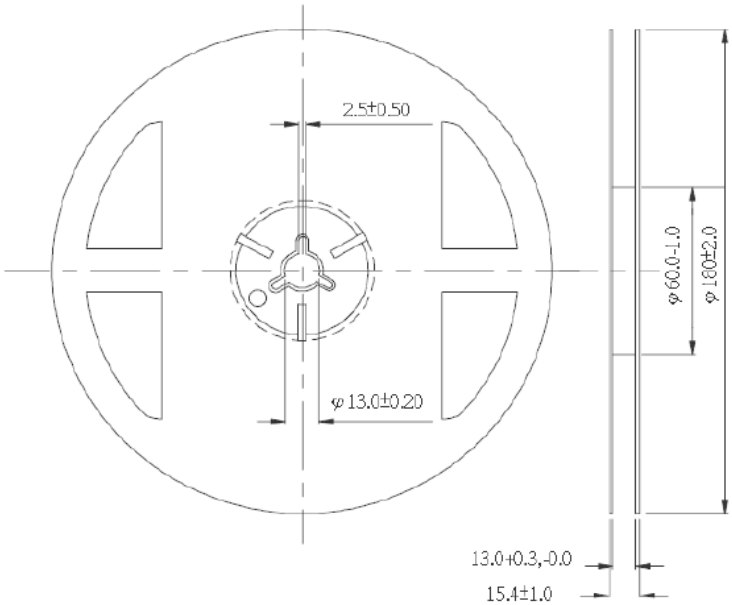
Notes:

1. Tolerance unless mentioned is ±0.1mm;

Moisture Resistant Packaging



Emitter Reel Dimensions



Notes:

1. Dimensions are in millimeters.
2. Tolerances unless mentioned are ±0.1mm.

Product Labeling

Label Explanation

CPN: Customer Specification (when required)

P/N : Everlight Production Number

QTY: Packing Quantity

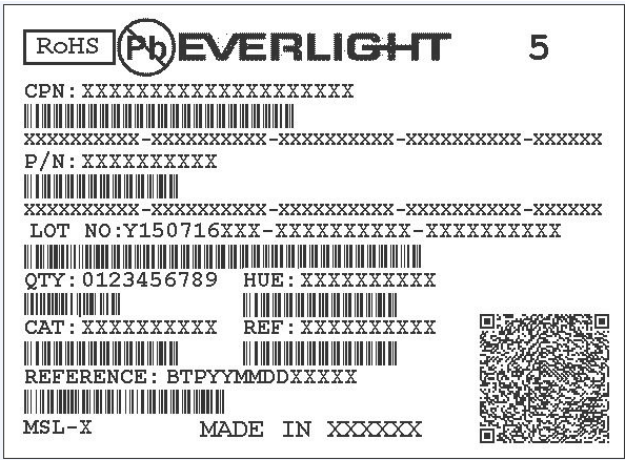
CAT: Luminous Flux (Brightness) Bin

HUE: Color Bin

REF: Forward Voltage Bin

LOT No: Lot Number

MADE IN TAIWAN: Production Place



Storage Conditions

- Before the package is opened. The LEDs should be stored at 30°C or less and 90%RH or less after being shipped from EVERLIGHT and the storage life limits are 12 months.
- If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5℃ for 24 hours.

DISCLAIMER

- EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
- The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
- The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
- When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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- This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized EVERLIGHT sales agent for special application request.