

UVB3535CZ0112
0.1 W Series

Introduction

The UVB3535CZ0112 product series is a ceramic based LED with high quality and reliability that suitable for UV application.

Features

- High power UVB LED
- Dimension 3.5mm* 3.5mm* 1.13mm
- ESD protection up to 2KV
- Typical viewing angle: 120°
- RoHS compliant
- Pb free
- Compliance with EU REACH
- Compliance Halogen Free
  (Br<900ppm,Cl<900ppm,Br+Cl<1500ppm)

Applications

- UV Sterilization

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Product Nomenclature

UVB3535CZ0112-FUB0015001X75020-1T

UVB = UVB

3535 = 3.5mm x 3.5mm Package

C = Package Material: Ceramic

Z = Zener

01 = Chip QTY: 1 chip

12 = Angle:120°

F = Chip type: Flip Chip

UB= Color Rendering Index: UVB

0015=Wavelength Range: 300~315nm

001= Minimum Radiant Flux Spec: 1mW

X75 = Forward Voltage Spec: 5.0-7.5V

20 = Forward Current: 20mA

1 = Packaging: 1K pcs

T = Tape Packaging : N

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Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Max. DC Forward Current (mA)	I_F	30	mA
Max. ESD Resistance	V_B	2000	V
Max. Junction Temperature	T_J	70	°C
Thermal Resistance	R_{th}		℃/W
Operating Temperature	T_{Opr}	-30 ~ +60	°C
Storage Temperature	T_{Stg}	-40 ~ +100	°C

PN of the UVB3535CZ0112 series: UVB LEDs

Order Code of UVB3535CZ0112	Minimum Radiant Flux (mW)	Typical Radiant Flux (mW)	Maximum Radiant Flux (mW)	Peak Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)
UVB3535CZ0112-FUB0015001X75020-1T	1	2	2.5	300-315	5.0-7.5	20

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Product Binning

Radiant Flux Bins

Bin Code	Minimum Radiant Flux (mW)	Maximum Radiant Flux (mW)
Q0A	1	1.5
Q0B	1.5	2
Q0C	2	2.5

Notes:

1. Radiant flux measurement tolerance: ±10%.
2. Forward voltage bins are defined at I_F=20mA operation.

Peak Wavelength Bins

Bin Code	Minimum Peak Wavelength (nm)	Maximum Peak Wavelength (nm)
U30A	300	305
U30B	305	310
U31	310	315

Notes:

1. Peak Wavelength measurement tolerance: ±1nm.
2. Forward voltage bins are defined at I_F=20mA operation.

Forward Voltage Bins

Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
5560	5.5	6.0
6065	6.0	6.5
6570	6.5	7.0
7075	7.0	7.5

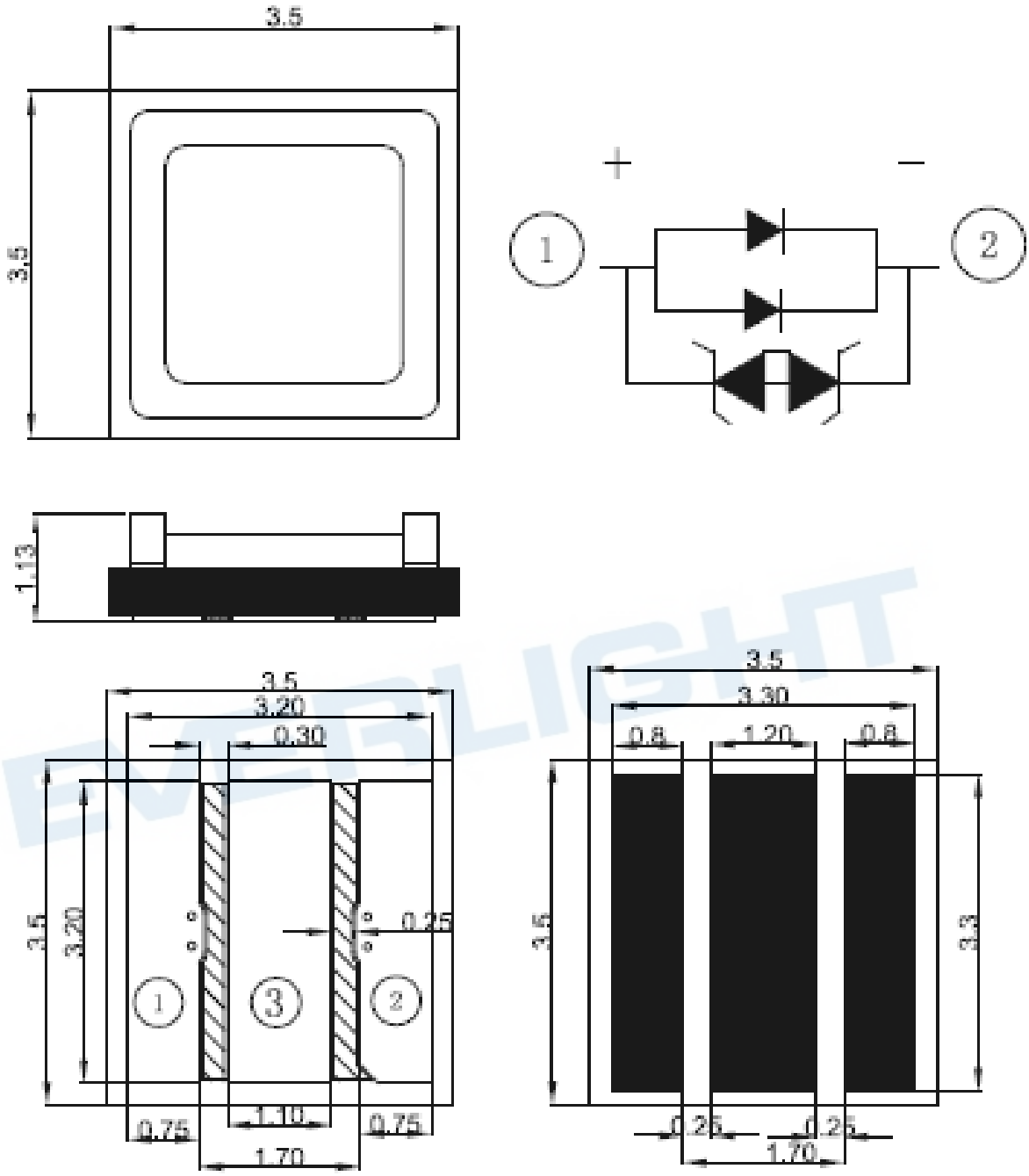
Notes:

1. Forward voltage measurement tolerance: ±2%.
2. Forward voltage bins are defined at I_F=20mA operation.

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Mechanical Dimension

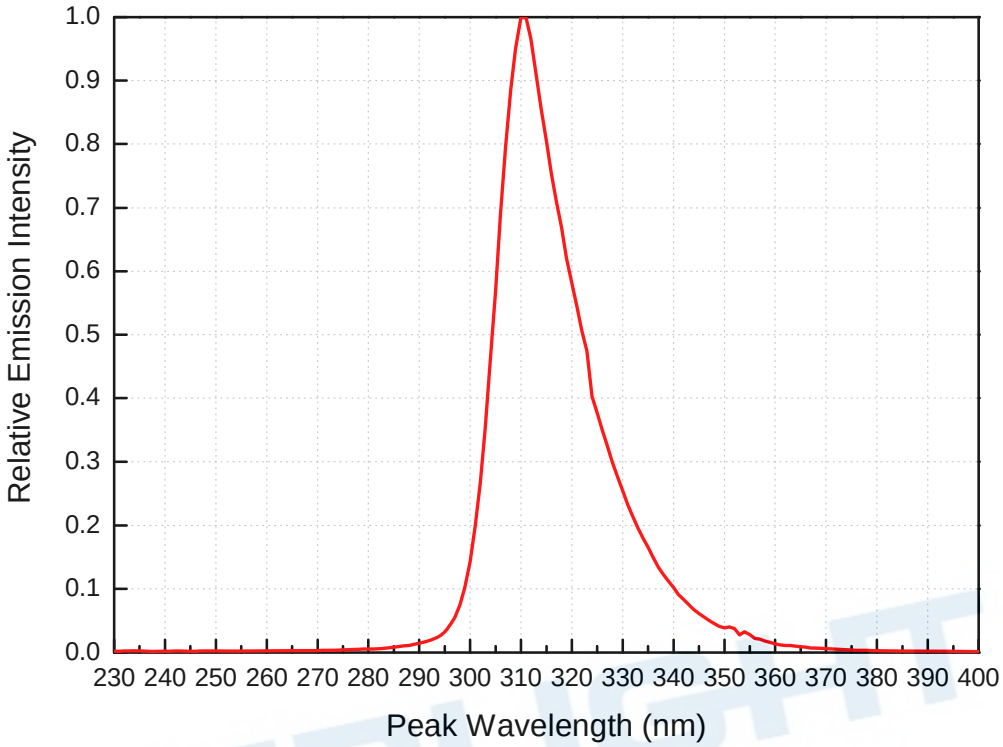


1. Dimensions are in millimeters.
2. Tolerances unless mentioned are ± 0.2mm
3. Pad Configuration 1: Anode ,2: Cathode ,3:Thermal Pad

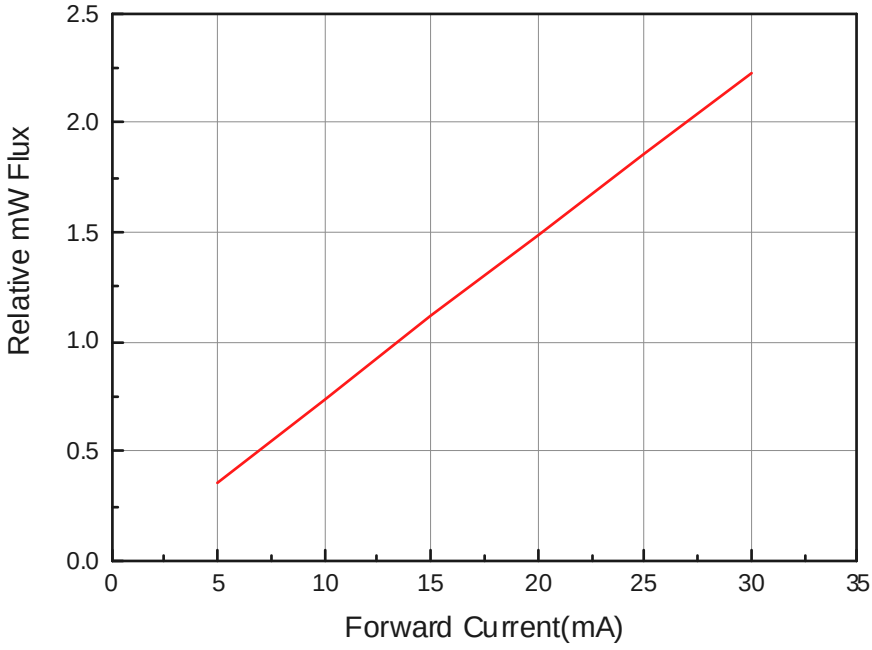
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Typical Characteristics Curves

Spectrum @ Thermal Pad Temperature = 25℃

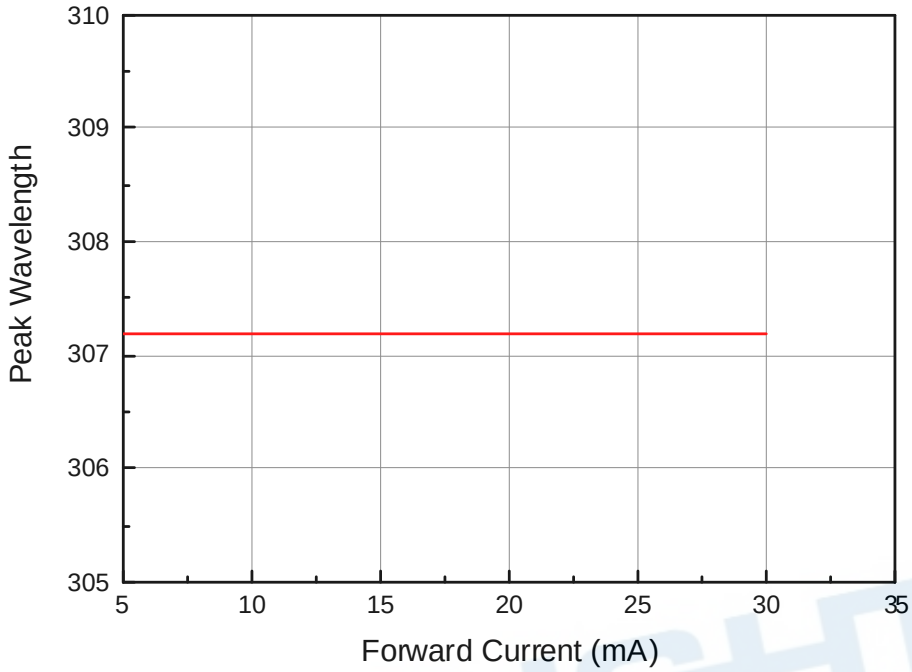


Typical Relative mW Flux vs. Forward Current @ Soldering Pad Temperature = 25℃

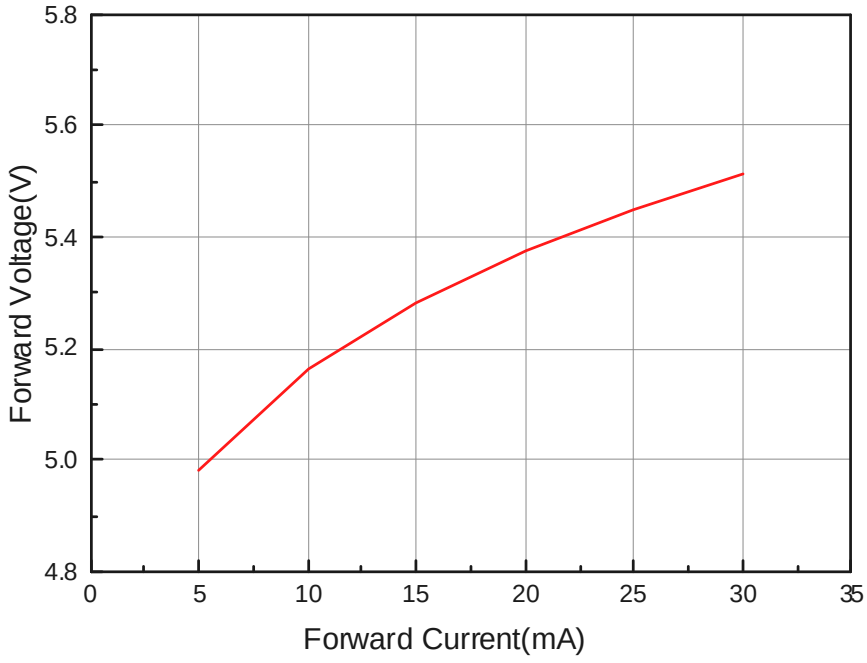


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Peak Wavelength vs. Current
@ Soldering Pad Temperature = 25℃

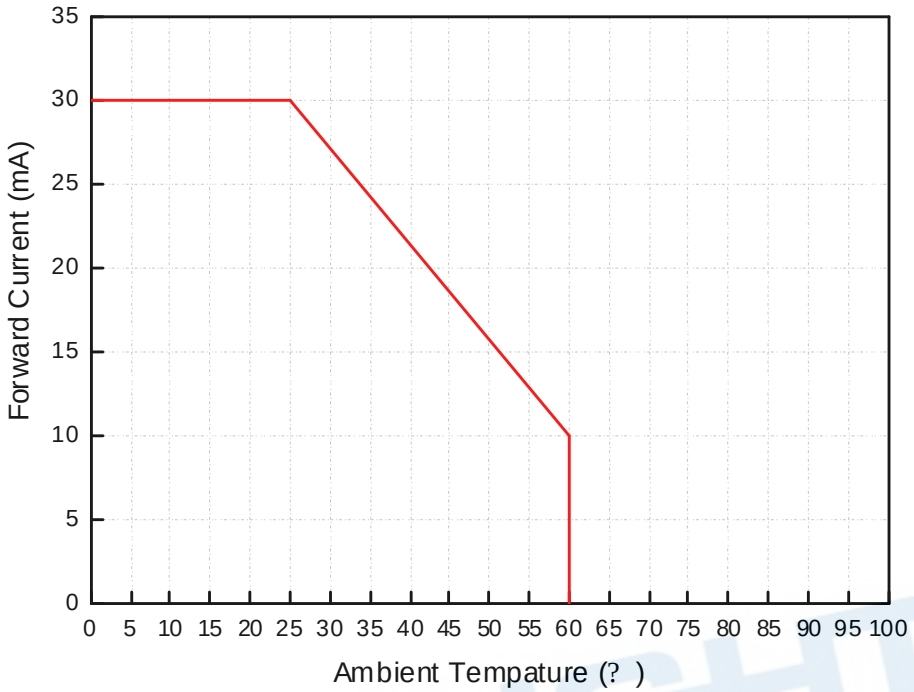


Forward Current vs. Forward Voltage
@ Soldering Pad Temperature = 25℃



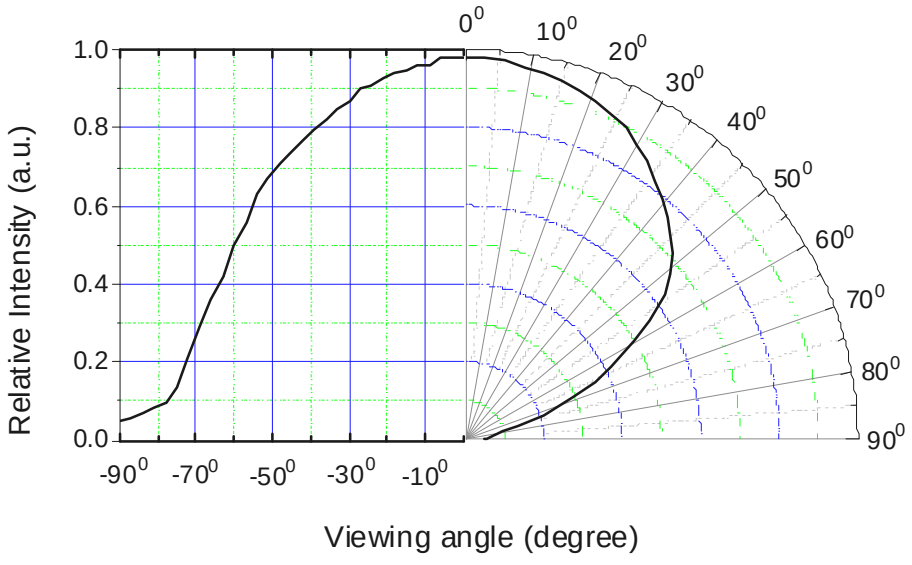
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Derating Curve



Typical Radiation Patterns

Typical Diagram Characteristics of Radiation for ELUB3535NUB

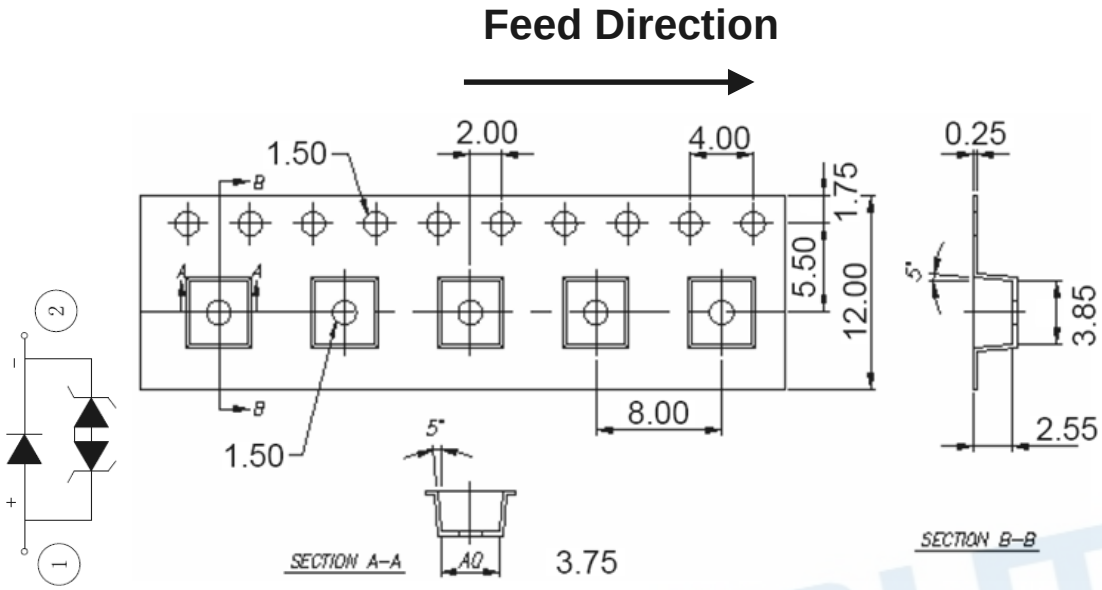


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Emitter Tape Packaging

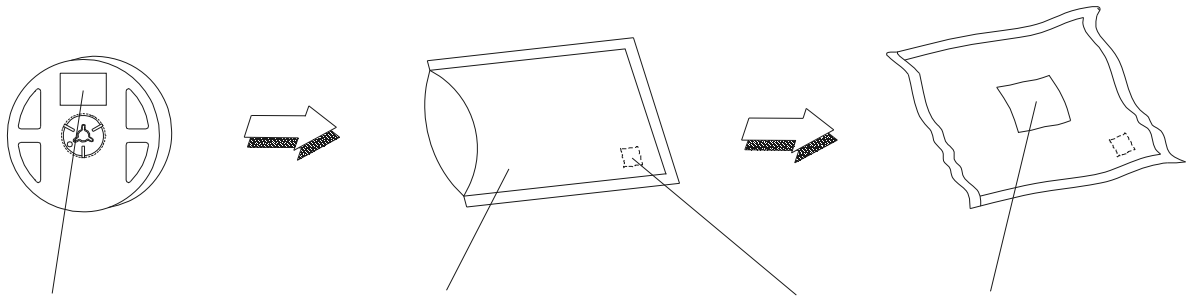
Carrier Tape Dimensions as the following:

Reel: 1000 pcs



Origin Graph

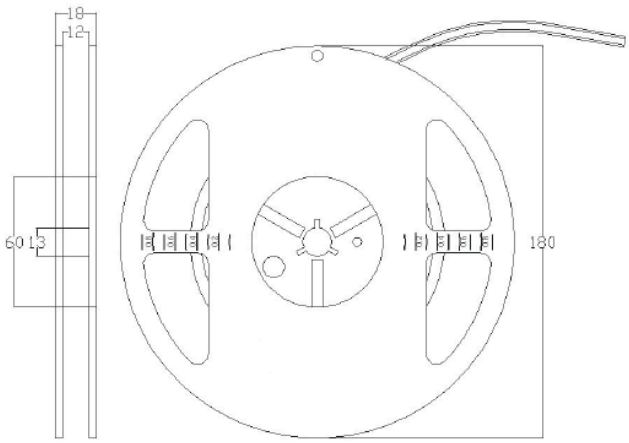
Moisture Resistant Packaging



Label **Aluminum moisture-proof bag** **Desiccant** **Label**

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Emitter Reel Dimensions



Notes:

1. Dimensions are in millimeters.
2. Tolerances unless mentioned are ±0.2mm.

Product Labeling

Label Explanation

CPN: Customer Specification (when required)

P/N : Everlight Production Number

QTY: Packing Quantity

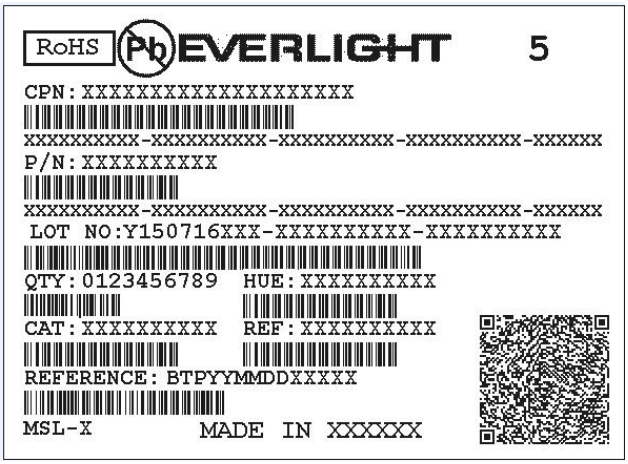
CAT: Luminous Flux (Brightness) Bin

HUE: Color Bin

REF: Forward Voltage Bin

LOT No: Lot Number

MADE IN TAIWAN: Production Place



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Storage Conditions

- Before the package is opened: The LEDs should be stored at 30°C or less and 85%RH or less after being shipped from Everlight and the storage life limits are 1 year. The LEDs can be stored up to 3 years if in a sealed container with a nitrogen atmosphere and moisture absorbent material.
- After opening the package: The LED's floor life is 168H under 30°C or less and 60% RH or less. If unused LEDs remain, it should be stored in moisture proof packages.
- 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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