

**Technical Data Sheet****Light Emitting Diode (5 mm Round LED,T-1 3/4)****333/A2C1-AUYB****Features**

- Popular T-1 3/4 diameter package.
- Choice of various viewing angles.
- Available on tape and reel.
- Reliable and robust.
- ESD-withstand voltage: up to 4KV.
- The product itself will remain within RoHS compliant version.

**Descriptions**

- The series is specially designed for applications requiring higher brightness.
- The LED lamps are available with different colors, intensities, epoxy colors, etc.
- Superior performance in outdoor environment

**Applications**

- Status indicators.
- Commercial use.
- Advertising Signs.
- Back lighting.

**Device Selection Guide**

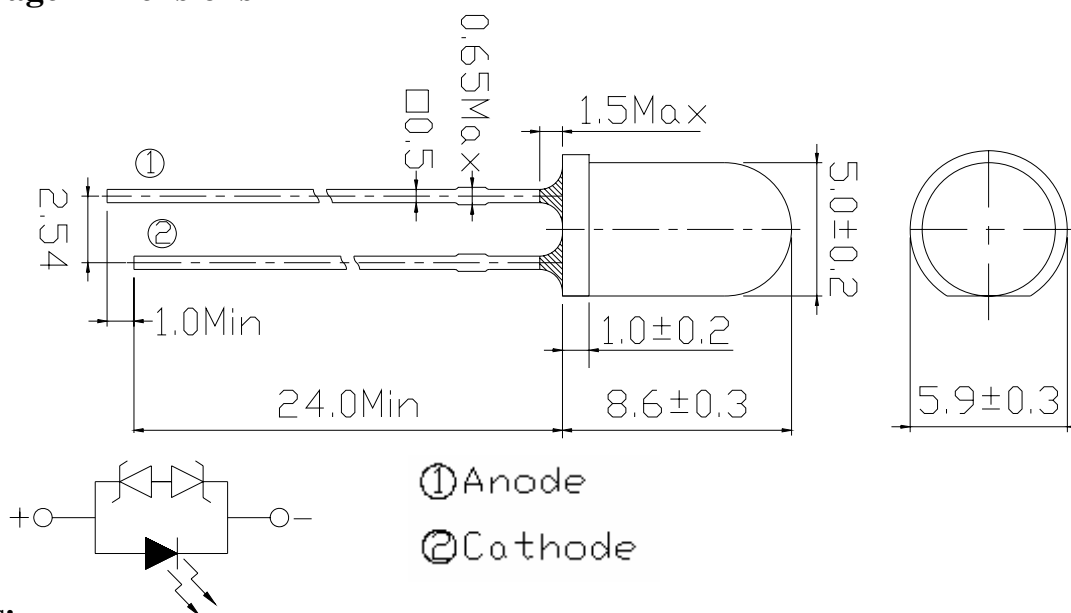
Chip		Lens Color
Material	Emitted Color	
AlGaInP	Super Sunset Orange	Water Clear

# Technical Data Sheet

## Light Emitting Diode (5 mm Round LED,T-1 3/4)

### 333/A2C1-AUYB

### Package Dimensions



### Notes:

- All dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Lead spacing is measured where the lead emerges from the package.
- Protruded resin under flange is 1.5mm Max LED.

### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Units
Forward Current	I <sub>F</sub>	50	mA
Pulse Forward Current <sup>*1</sup>	I <sub>FP</sub>	100	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Electrostatic Discharge	ESD	4K	V
Soldering Temperature <sup>*2</sup>	T <sub>sol</sub>	260±5	°C
Power Dissipation	P <sub>d</sub>	120	mW
Zener Reverse Current	I <sub>Z</sub>	100	mA
Reverse Voltage	V <sub>R</sub>	5	V

**Notes:** \*1:I<sub>FP</sub> Conditions--Pulse Width ≤ 10msec and Duty ≤ 1/10.

\*2:Soldering time ≤ 5 seconds.



## Technical Data Sheet

## Light Emitting Diode (5 mm Round LED,T-1 3/4)

**333/A2C1-AUYB****Electro-Optical Characteristics (Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	1.8	--	2.6	V
Zener Reverse Voltage	V <sub>Z</sub>	I <sub>Z</sub> =5mA	5.2	--	--	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	--	--	10	μA
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> =20mA	9000	18000	28500	mcd
Viewing Angle	2 θ 1/2	I <sub>F</sub> =20mA	--	10	--	deg
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	--	621	--	nm
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> =20mA	610	615	620	nm
Spectrum Radiation Bandwidth	Δ λ	I <sub>F</sub> =20mA	--	18	--	nm

**Rank Combination (I<sub>F</sub>=20mA)**

Rank	U	V	W	X	Y
Luminous Intensity	9000~11250	11250~14250	14250~18000	18000~22500	22500~28500

\*Measurement Uncertainty of Luminous Intensity: ±15%

Unit:mcd

Rank	1	2	3	4
Forward Voltage	1.8~2.0	2.0~2.2	2.2~2.4	2.4~2.6

\*Measurement Uncertainty of Forward Voltage: ±0.1V

Unit:V

Rank	6	7	8
Dominant Wavelength	610~613.5	613.5~617.0	617.0~620

\*Measurement Uncertainty of Dominant Wavelength ±1.0nm

Unit:nm

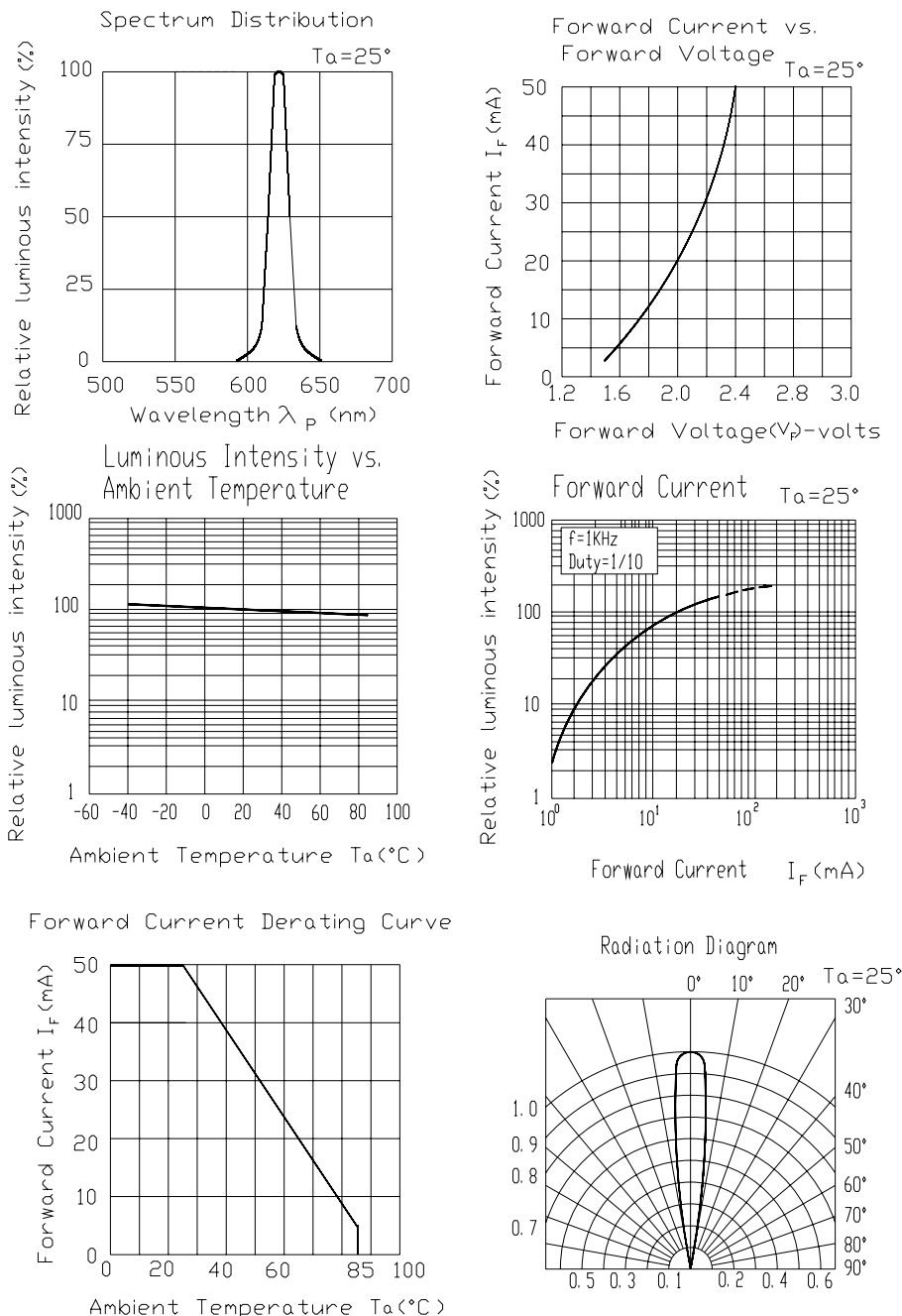
\*The quantity ratio of the ranks is decided by EVERLIGHT.

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## Light Emitting Diode (5 mm Round LED,T-1 3/4)

### 333/A2C1-AUYB

#### Typical Electro-Optical Characteristics Curves





EVERLIGHT ELECTRONICS CO.,LTD.

## Technical Data Sheet

### Light Emitting Diode (5 mm Round LED,T-1 3/4)

**333/A2C1-AUYB**

#### Label Form Specification

<div>EVERLIGHT</div>	
CPN:	
P/N:	<div>RoHS</div>
333/A2C1-AUYB	
QTY :	CAT:
<div></div>	HUE:
LOT NO :	REF:
<div></div>	
MADE IN TAIWAN	

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks of Luminous Intensity and Forward  
Voltage

HUE: Ranks of Dominant Wavelength

REF: Reference

LOT No: Lot Number

MADE IN TAIWAN: Production Place

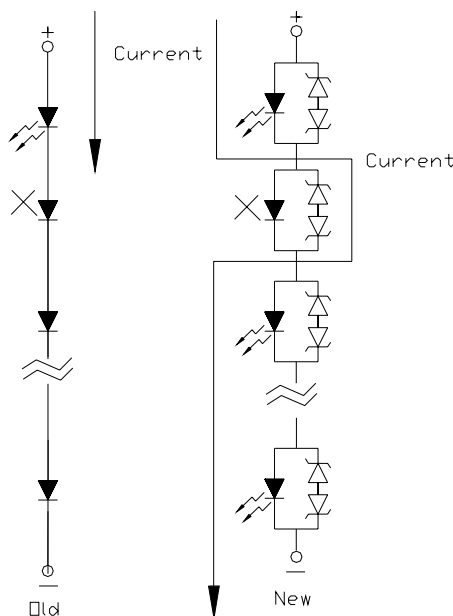
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## Light Emitting Diode (5 mm Round LED,T-1 3/4)

### 333/A2C1-AUYB

#### Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. 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 use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.
4. Below the zener reference voltage  $V_z$ , all the current flows through LED and as the voltage rises to  $V_z$ , the zener diode "breakdown." If the voltage tries to rise above  $V_z$  current flows through the zener branch to keep the voltage at exactly  $V_z$ .
5. When the LED is connected using serial circuit, if either piece of LED is no light up but current can't flow through causing others to light down. In new design, the LED is parallel with zener diode. if either piece of LED is no light up but current can flow through causing others to light up.



**Technical Data Sheet****Light Emitting Diode (5 mm Round LED,T-1 3/4)****333/A2C1-AUYB****6. Soldering Condition**

Careful attention should be paid during soldering. When soldering, leave more than 3mm from solder joint to case, and soldering beyond the base of the tie bar is recommended.

Avoiding applying any stress to the lead frame while the LEDs are at high temperature particularly when soldering.

Recommended soldering conditions:

Hand Soldering		DIP Soldering	
Temp. at tip of iron	400°C Max. (30W Max.)	Preheat temp.	100°C Max. (60 sec Max.)
Soldering time	3 sec Max.	Bath temp.	265 Max.
Distance	3mm Min.(From solder joint to case)	Bath time.	5 sec Max.
		Distance	3mm Min.

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