

Technical Data Sheet

5 mm Round White LED (T-13/4)

334-15/T8C1-4VYE

Features

- Popular T-13/4 colorless 5mm package.
- High luminous power.
- Typical chromaticity coordinates $x=0.30$, $y=0.29$ according to CIE1931.
- Bulk, available taped on reel.
- The product itself will remain within RoHS compliant version.



Descriptions

- The series is designed for application required high luminous intensity.
- The phosphor filled in the reflector converts the blue emission of GaN chip to ideal white.

Applications

- Outdoor Displays
- Optical Indicators
- Backlighting
- Marker Lights

Device Selection Guide

PART NO.	Chip		Lens Color
	Material	Emitted Color	
334-15/T8C1-4VYE	GaN/SiC	White	Water Clear

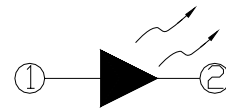
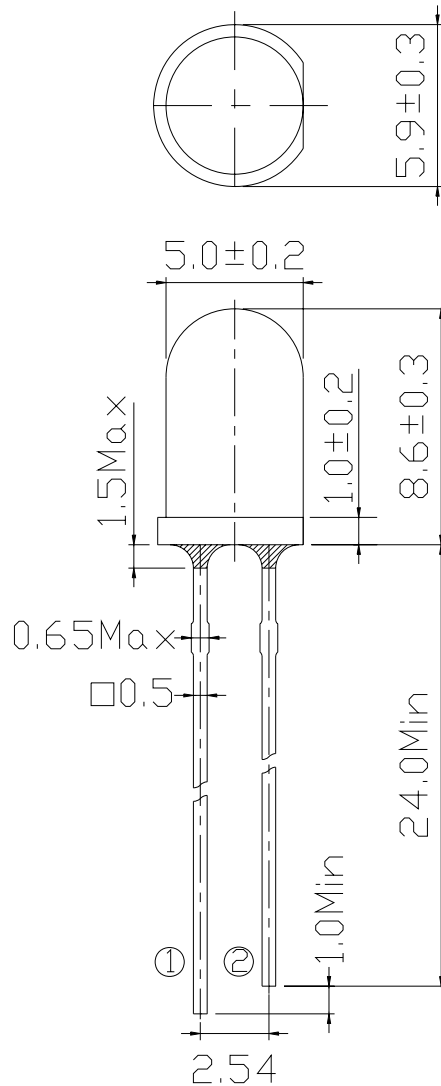


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Package Dimensions



① Anode

② Cathode

Notes:

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



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Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	I _F	30	mA
Peak Forward Current(Duty /10 @ 1KHZ)	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature (T=5 sec)	T _{sol}	260 ± 5	°C
Power Dissipation	P _d	130	mW
Electrostatic Discharge	ESD	1K	V



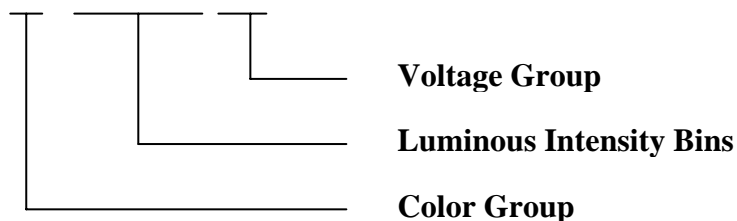
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Production Designation

334-15/T8C1-□ □ □ □



Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Forward Voltage	V _F	I _F =20mA	2.6	----	3.8	V
Reverse Current	I _R	V _R =5V	----	----	50	uA
Luminous Intensity	I _V	I _F =20mA	11250	----	28500	mcd
Viewing Angle	2θ 1/2	I _F =20mA	----	12	----	deg
Chromaticity Coordinates	x	I _F =20mA	----	0.30	----	----
	y		----	0.29	----	----



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Luminous Intensity Combination (mcd at 20mA)

Rank	Min	Max
V	11250	14250
W	14250	18000
X	18000	22500
Y	22500	28500

*Measurement Uncertainty of Luminous Intensity: $\pm 15\%$

Forward Voltage Combination (V at 20mA)

Group	E					
Rank	a	0	1	2	3	4
Min.	2.60	2.80	3.00	3.20	3.40	3.60
Max.	2.80	3.00	3.20	3.40	3.60	3.80

*Measurement Uncertainty of Forward Voltage : $\pm 0.1V$

Color Combination (at 20mA)

Group	Bins
4	A0+B5+B6

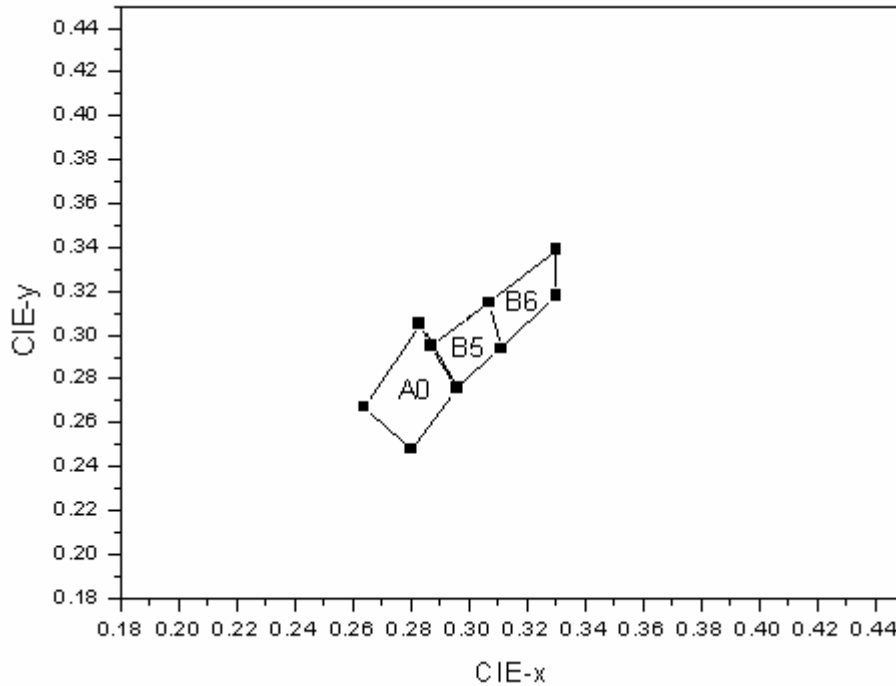


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CIE Chromaticity Diagram



Color Ranks (IF=20mA , Ta=25°C)

Color Ranks		CIE			
A0	X	0.264	0.283	0.296	0.28
	Y	0.267	0.305	0.267	0.248
B5	X	0.287	0.307	0.311	0.296
	Y	0.295	0.315	0.294	0.276
B6	X	0.307	0.33	0.33	0.311
	Y	0.315	0.339	0.318	0.294

*Measurement uncertainty of the color coordinates : ± 0.01



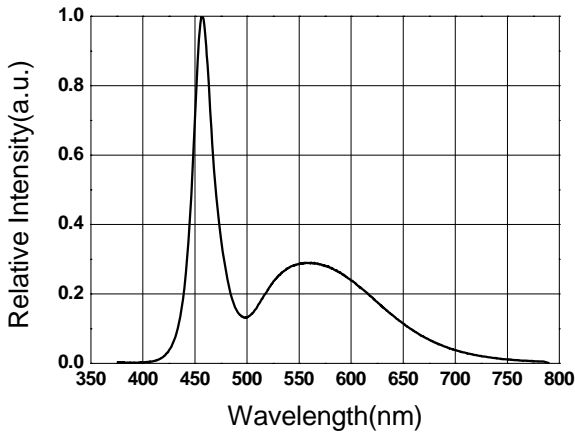
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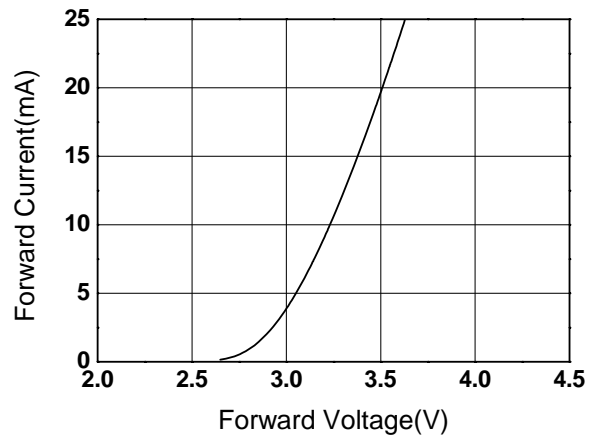
334-15/T8C1-4VYE

Typical Electro-Optical Characteristics Curves

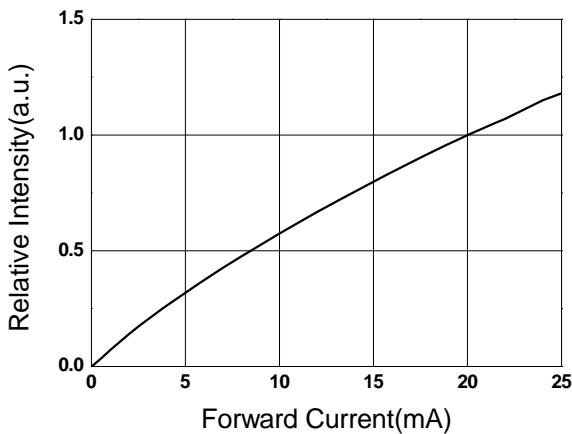
Relative Intensity vs. Wavelength



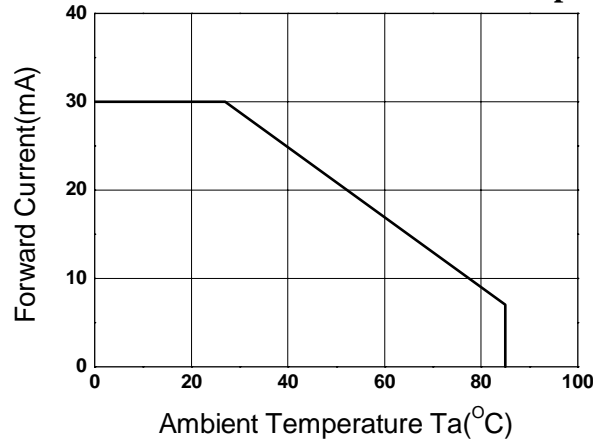
Forward Current vs. Forward Voltage



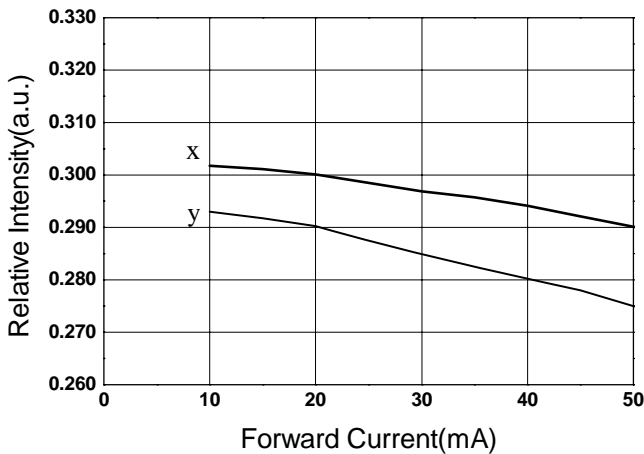
Relative Intensity vs. Forward Current



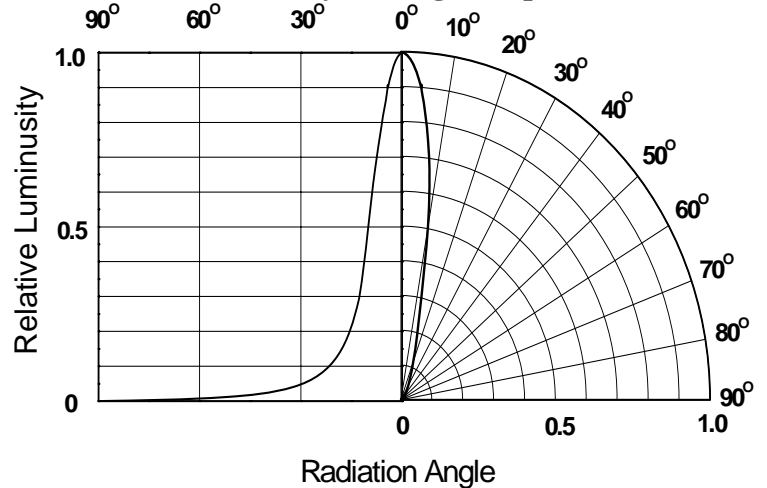
Forward Current vs. Ambient Temp.



Chromaticity Coordinate vs. Forward Current



Relative Intensity vs. Angle Displacement





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Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

Label Form Specification

EVERLIGHT	
CPN:	
P/N:	RoHS
	
334-15/T8C1-4VYE	
QTY :	CAT:
	
LOT NO :	HUE:
	
MADE IN TAIWAN	

CPN: Customer's Production Number
P/N: Production Number
QTY: Packing Quantity
CAT: Ranks of Luminous Intensity and Forward Voltage
HUE: Color Rank
REF: Reference
LOT No: Lot Number
MADE IN TAIWAN: Production Place



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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. 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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