

# Technical Data Sheet

## POWER LED @150mA Current

**30-02UYC/S599**

### Benefits

- . Fewer LEDs Required
- . Lowers Lighting System Cost
- . Viewing angle 50°



### Features

- . High Flux Output.
- . Designed for High Current Operation.
- . Low Thermal Resistance.
- . Low Profile.
- . Packaged in Tubes for Use with Automatic Insertion Equipment.
- . The product itself will remain within RoHS compliant version
- . ESD-withstand voltage: up to 4KV

### Descriptions

This revolutionary package design allows the light designer to reduce the number of LEDs required and provide a more uniform and unique illuminated appearance than with other LED solutions. This is possible through the efficient optical package design and high-current capabilities.

The low profile package can be easily coupled with reflectors or lenses to efficiently distribute light and provide the desired light appearance.

### Applications

- . Automotive Exterior Lighting
- . Electronic Signs and Signals
- . Special Lighting application

### Device Selection Guide

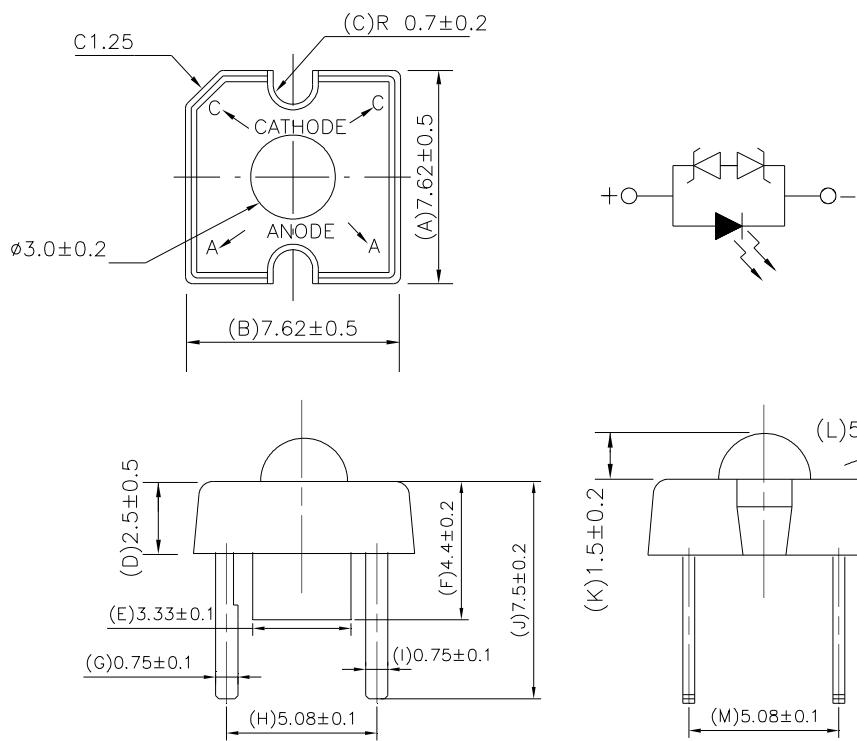
PART NO.	Chip		Lens Color
	Material	Emitted Color	
30-02UYC/S599	AlGaInP	Yellow	Water Clear

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### Package Dimensions



**Notes:** 1. All dimensions are in millimeters

2. An epoxy meniscus may extend about 1.5mm(0.059") down the leads

3. Tolerances unless dimensions  $\pm 0.25$ mm

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

Parameter	Symbol	Rating	Units
Continuous Forward Current	I <sub>F</sub>	150	mA
Peak Forward Current(Duty 1/10 @ 1KHZ)	I <sub>FP</sub>	200	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +100	°C
Soldering Temperature(T=5 sec)	T <sub>sol</sub>	260 ± 5	°C
LED Junction Temperature	T <sub>j</sub>	125	°C
Power Dissipation	P <sub>d</sub>	400	mW
Electrostatic Discharge	ESD	4K	V

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### Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Condition	Unit
<b>Total Flux</b>	$\Phi v$	9000	11000	18000	$I_F=150mA$	mlm
<b>Viewing Angle</b>	$2\theta_{1/2}$	----	50	----	$I_F=150mA$	deg
<b>Peak Wavelength</b>	$\lambda_p$	----	591	----	$I_F=70mA$	nm
<b>Dominant Wavelength</b>	$\lambda_d$	585.5	590	594.5	$I_F=70mA$	nm
<b>Spectrum Radiation Bandwidth</b>	$\Delta\lambda$	----	15	----	$I_F=70mA$	nm
<b>Forward Voltage</b>	$V_F$	1.9	2.3	2.9	$I_F=150mA$	V
<b>Reverse Current</b>	$I_R$	----	----	10	$V_R=10V$	uA

### Rank

30-02UYC/S599

(1)

(2)

(3)

(1) VF(V)			(2) $\lambda_d$ (nm)			(3) $\Phi v$ (mlm)		
Bin	Min	Max	Bin	Min	Max	Bin	Min	Max
L	1.9	2.1	2	585.5	587.0	U	9000	11250
M	2.1	2.3	3	587.0	588.5	V	11250	14250
N	2.3	2.5	4	588.5	590.0	W	14250	18000
P	2.5	2.7	5	590.0	591.5			
Q	2.7	2.9	6	591.5	593.0			
			7	593.0	594.5			

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

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

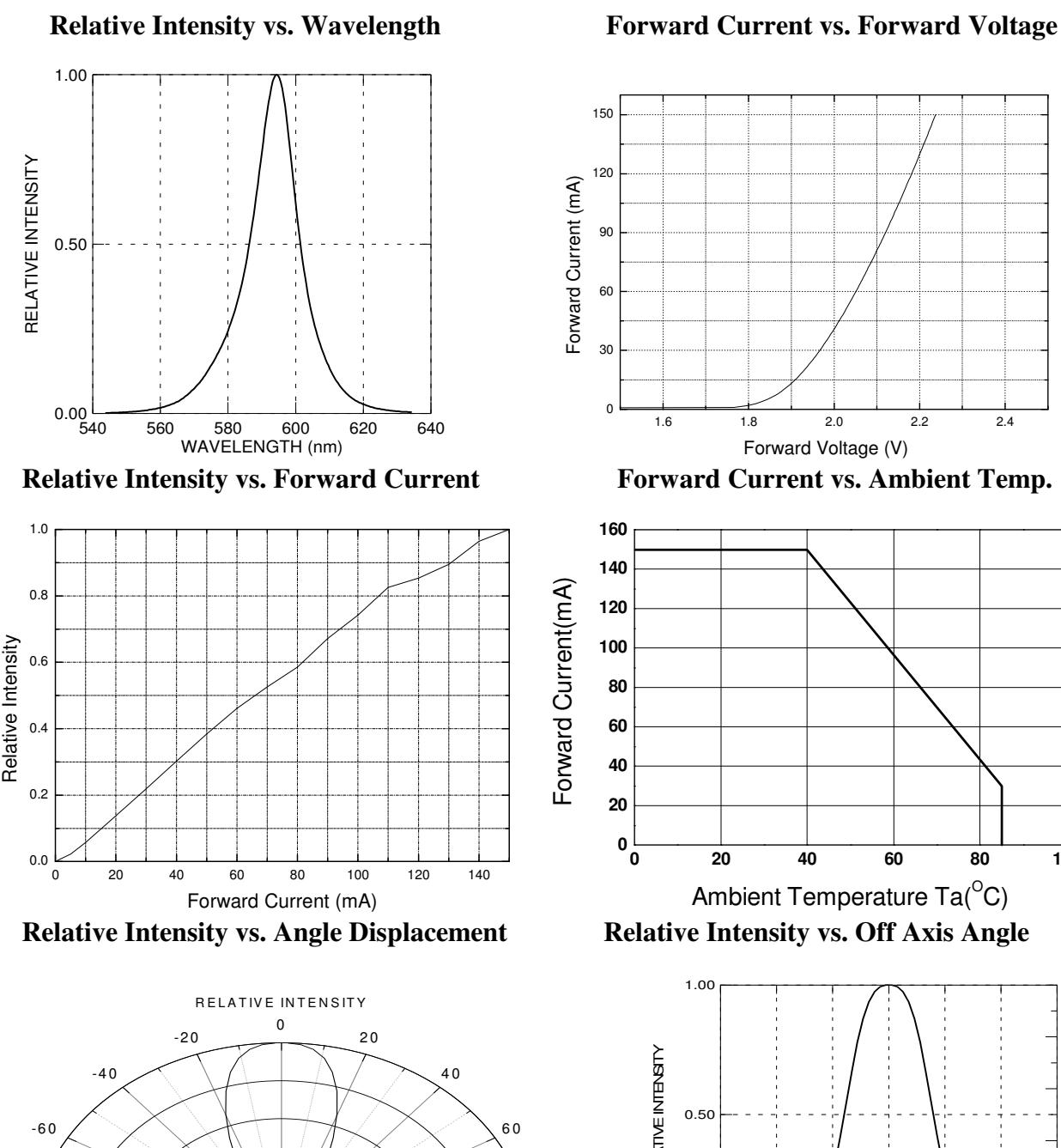
\*Measurement Uncertainty of Dominant Wavelength  $\pm 1.0\text{nm}$

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### Typical Electro-Optical Characteristics Curves





查询"30-02UYC/S599"供应商

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### Packing Quantity Specification

- (1) 60 pcs/1 tube, 30 tubes/1 small inside box, 12 small inside boxes/1 outside box
- (2) 60 pcs/1 tube, 105 tubes/1 big inside box, 4 big inside boxes/1 outside box

### Label Form Specification

- (1) Tube Label Form

	PART NO: 30-02UYC/S599	QTY: 60
	LOT NO:	CAT:

- (2) Box Label Form

EVERLIGHT	
CPN:	
P/N:	
30-02UYC/S599	<input type="checkbox"/> RoHS
QTY :	CAT:
	HUE:
LOT NO :	REF:
MADE IN TAIWAN	

PART NO: Everlight's Production Number

QTY: Packing Quantity

LOT NO: Lot Number

CAT: Ranks of Forward Voltage, Dominant Wavelength and Total Flux

CPN: Customer's Production Number

P/N : Production Number

HUE: Reference

REF: Reference

MADE IN TAIWAN: Production Place

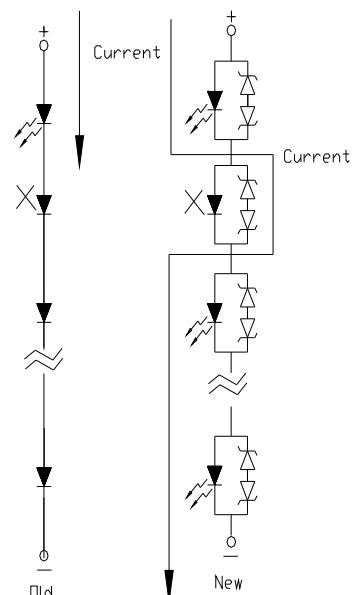
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### Notes

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. 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.



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### 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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Tucheng, Taipei 236, Taiwan, R.O.C**Tel: 886-2-2267-2000, 2267-9936**Fax: 886-2267-6244, 2267-6189, 2267-6306**http://www.everlight.com*