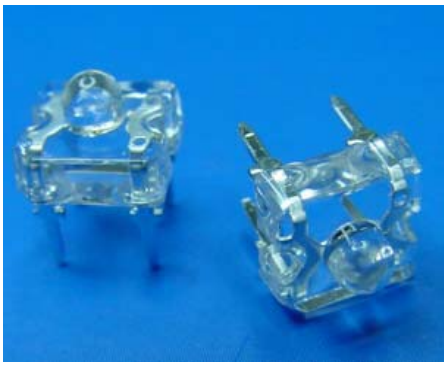
Technical Data Sheet

POWER LED

31-01SUGC/S463

Features

. High Flux Output.
. Designed for High Current Operation.
. Low Thermal Resistance.
. Low Profile.
. Viewing angle 40°
. 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	
31-01SUGC/S463	InGaN/Sapphire	Super Green	Water Clear

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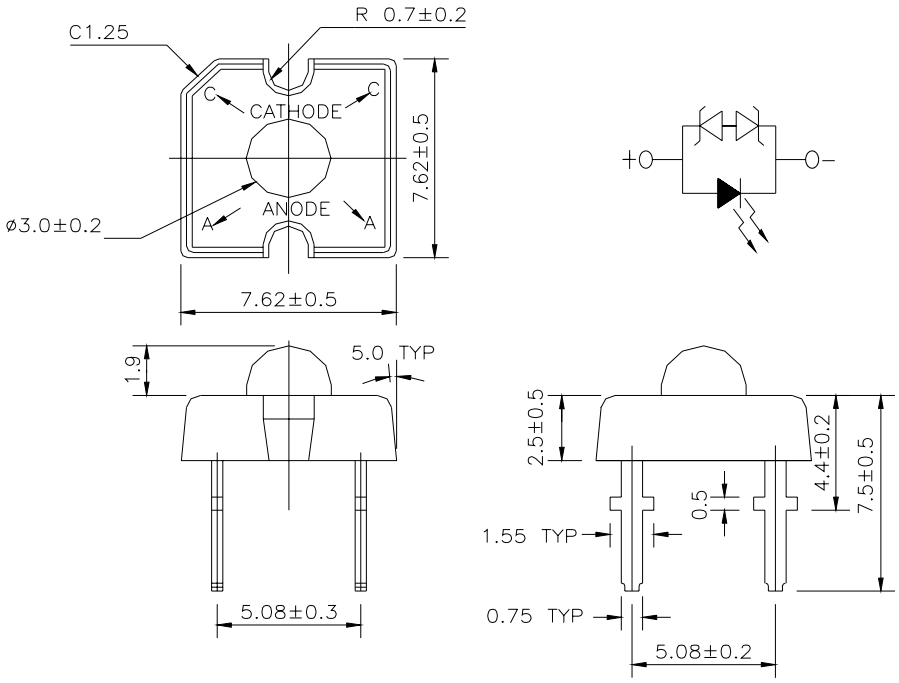
Package Dimensions



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 ±0.25mm

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Units
Continuous Forward Current	I_F	30	mA
Peak Forward Current(Duty 1/10 @ 1KHZ)	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	-40 ~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +100	℃
Soldering Temperature(T=5 sec)	T_{sol}	260 ± 5	℃
Zener Reverse Current	Iz	100	mA
Power Dissipation	P_d	120	mW
Electrostatic Discharge	ESD	4000	V

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Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Condition	Unit
Total Flux	Φv	1000	1600	----	I_F=20mA	mlm
Viewing Angle	2θ 1/2	----	40	----	I_F=20mA	deg
Peak Wavelength	λ p	----	518	----	I_F=20mA	nm
Dominant Wavelength	λ d	----	525	----	I_F=20mA	nm
Spectrum Radiation Bandwidth	△λ	----	35	----	I_F=20mA	nm
Forward Voltage	V_F	----	3.5	4.0	I_F=20mA	V
Reverse Current	I_R	----	----	50	V_R=5V	uA
Zener Reverse Voltage	V_Z	5.8	----	----	I_Z=5mA	V

Rank

31-01SUGC/S463 □ □ □

(1) (2) (3)

(1) V_F(V)			(2) λ d(nm)			(3) Φv(mlm)		
Bin	Min	Max	Bin	Min	Max	Bin	Min	Max
0	2.80	3.00	1	520	526	W	1000	2000
1	3.00	3.20	2	525	531	X	1600	3200
2	3.20	3.40						
3	3.40	3.60						
4	3.60	3.80						
5	3.80	4.00						

*Measurement Uncertainty of Forward Voltage：±0.1V

*Measurement Uncertainty of Luminous Intensity: ±15%

Typical Electro-Optical Characteristics Curves

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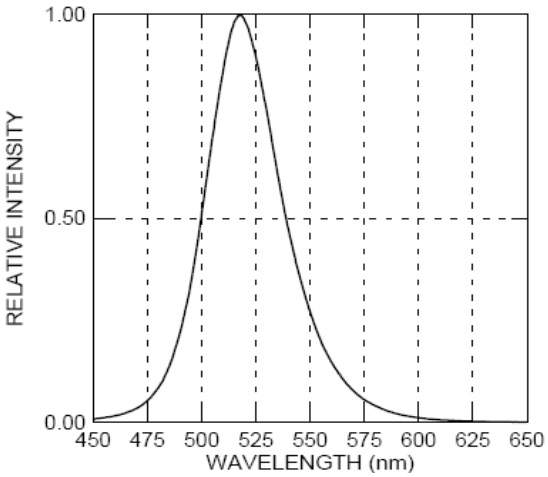
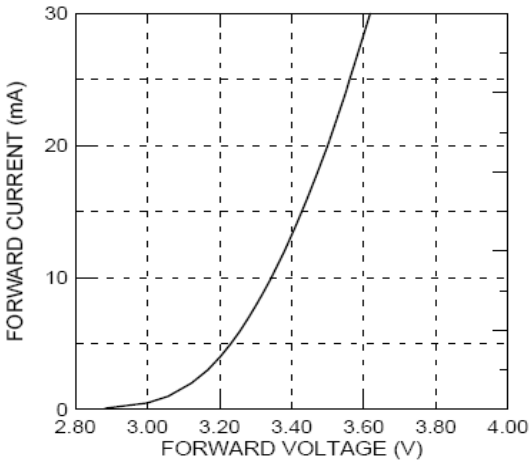
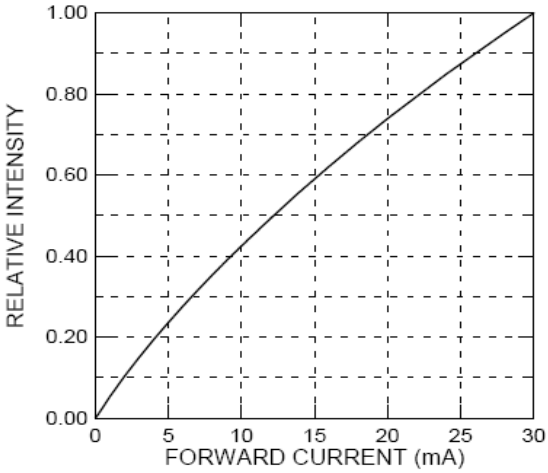
Relative Intensity vs. Wavelength



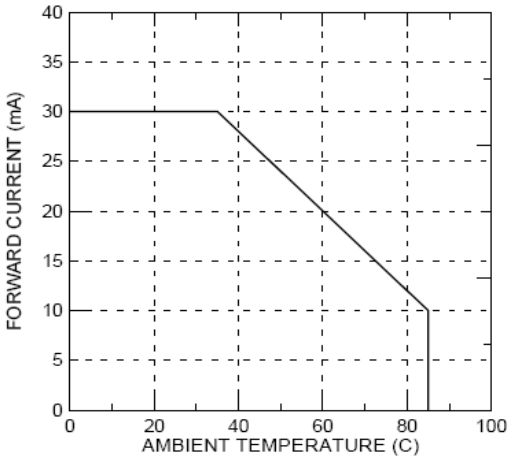
Forward Current vs. Forward Voltage



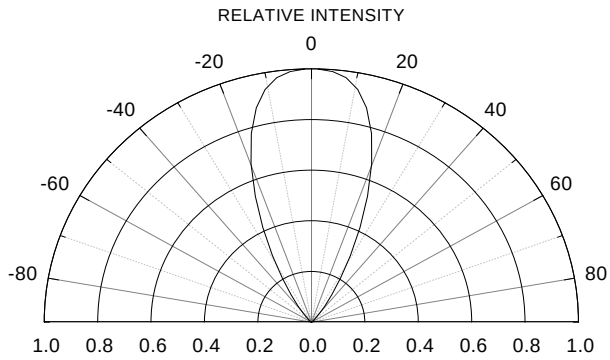
Relative Intensity vs. Forward Current



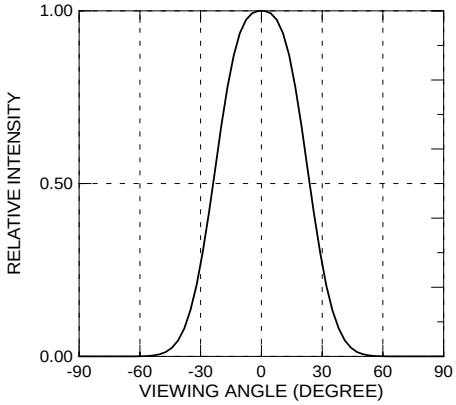
Forward Current vs. Ambient Temp.



Relative Intensity vs. Angle Dispacement



Relative Intensity vs. Off Axis Angle



Label Form Specification

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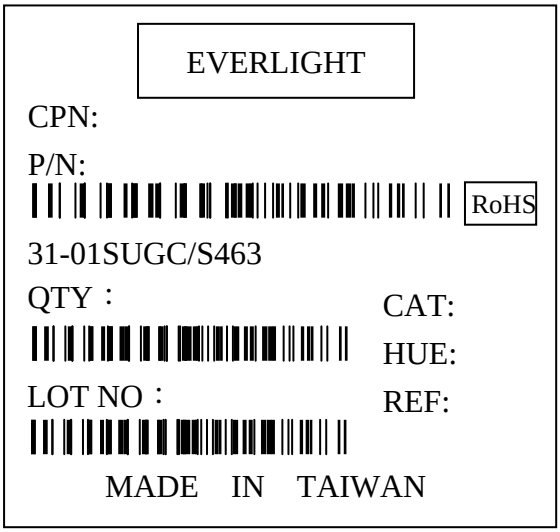
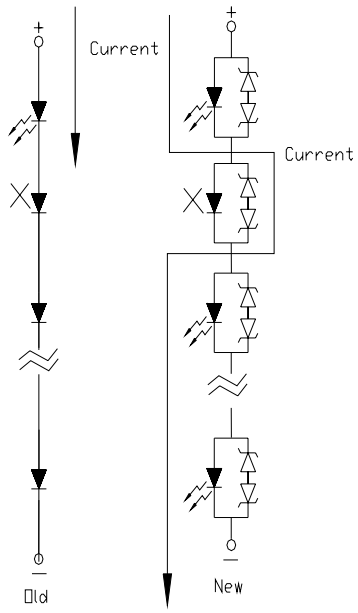


CPN: Customer's Production Number
P/N : Production Number
QTY: Packing Quantity
CAT: Ranks
HUE: Space
REF: Reference
LOT No: Lot Number
MADE IN TAIWAN: Production Place

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 Vz, all the current flows through LED and as the voltage rises to Vz, the zener diode "breakdown." If the voltage tries to rise above Vz current flows through the zener branch to keep the voltage at exactly Vz.
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.



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