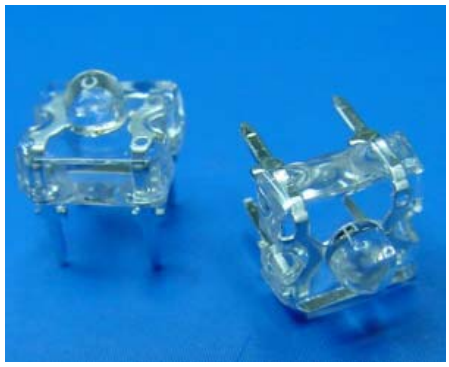
Technical Data Sheet

POWER LED

31-01SUGC/MB

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/MB	GaN/SiC	Super Green	Water Clear

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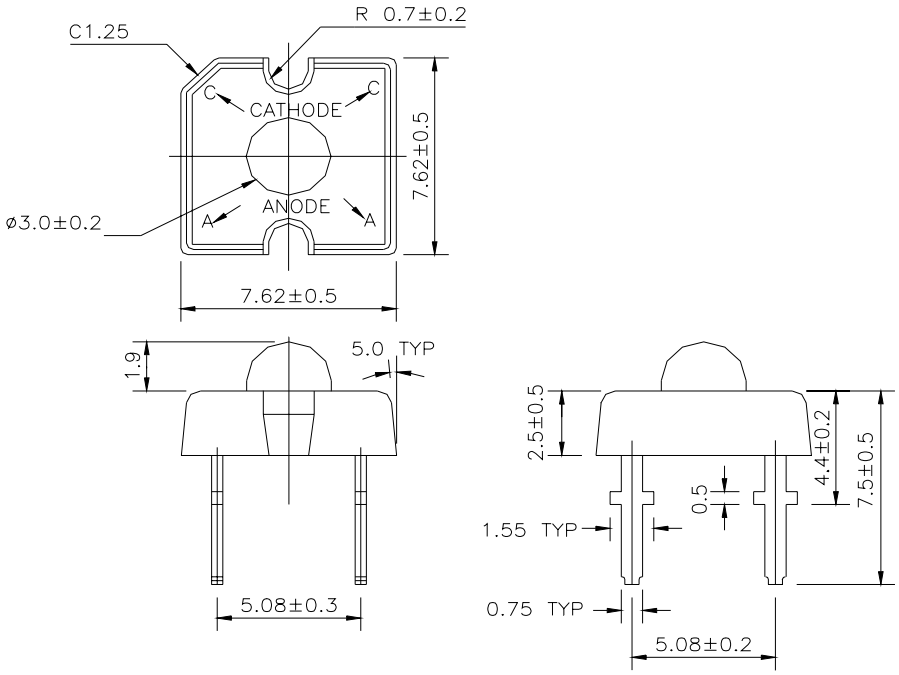
Package Dimensions



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	℃
Power Dissipation	P_d	129	mW
Electrostatic Discharge	ESD	1000	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	4.4	I_F=20mA	V
Reverse Current	I_R	----	----	50	V_R=5V	uA

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						
6	4.00	4.20						
7	4.20	4.40						

*Measurement Uncertainty of Forward Voltage：±0.1V

*Measurement Uncertainty of Luminous Intensity: ±15%

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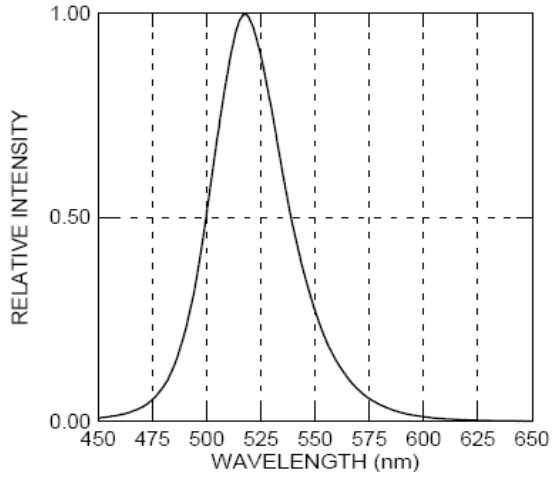
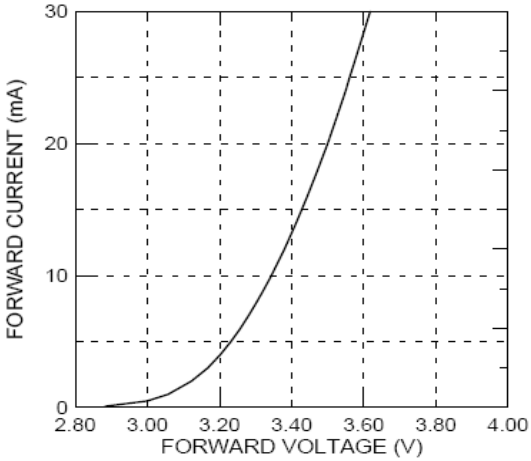
Typical Electro-Optical Characteristics Curves

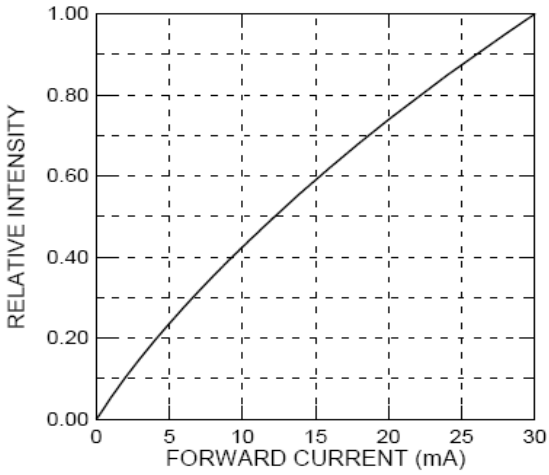
Relative Intensity vs. Wavelength



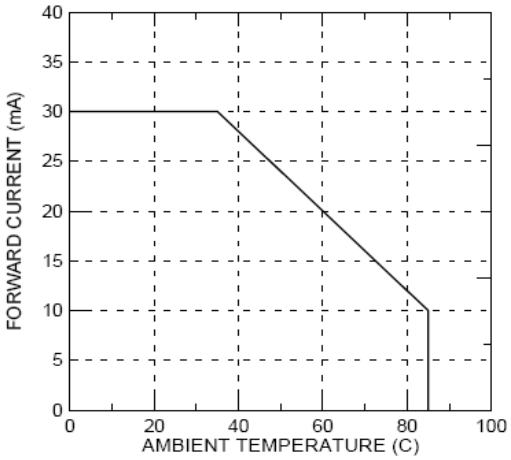
Forward Current vs. Forward Voltage



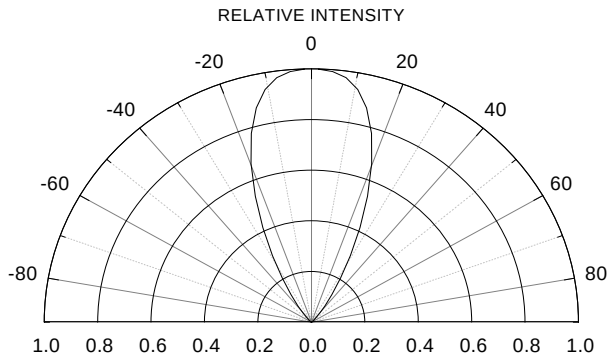
Relative Intensity vs. Forward Current



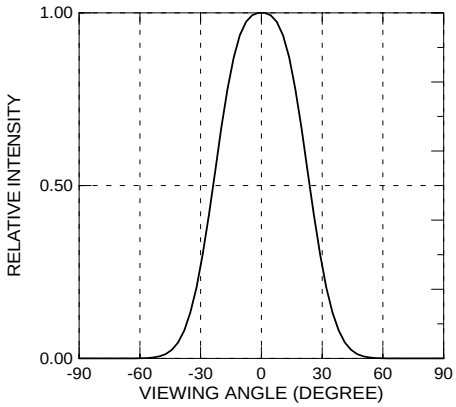
Forward Current vs. Ambient Temp.



Relative Intensity vs. Angle Dispacement



Relative Intensity vs. Off Axis Angle



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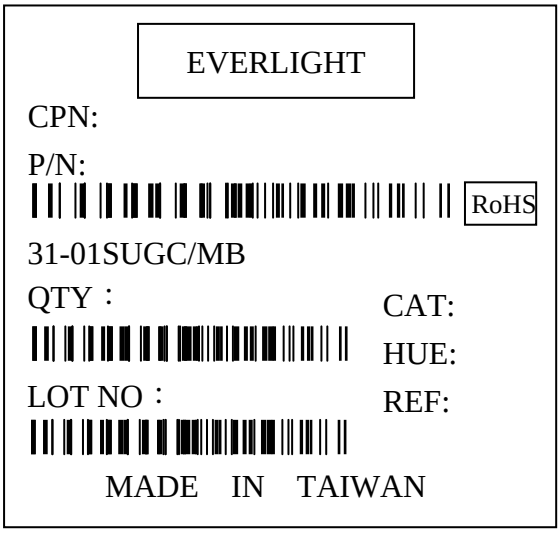
Label Form Specification



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.
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