



Technical Data Sheet

5464SUGD/MS

Features

- High luminous intensity output
- Oval Shape
- Well defined spatial radiation
- Wide viewing angle ($2\theta_{1/2}$) : $110^\circ / 40^\circ$
- UV resistant epoxy
- Pb free

Descriptions

- This precision optical performance oval LED is specifically designed for passenger information signs
- This lamp has matched radiation patterns with , Red Or blue color mixing color applications
- Superior performance in outdoor environment



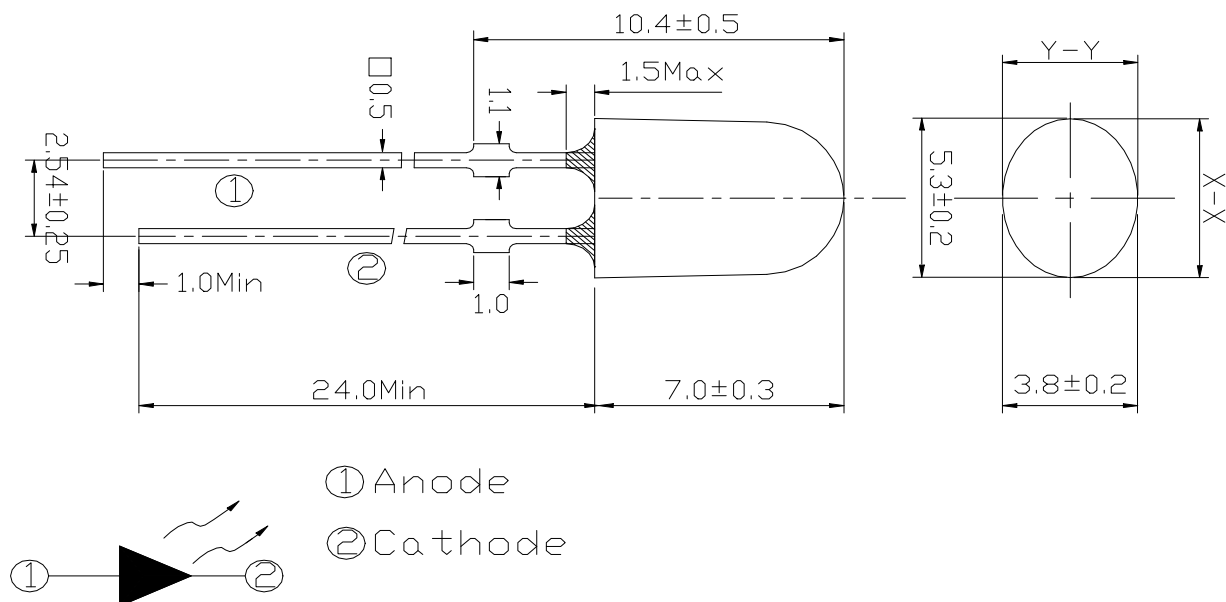
Applications

- Full color/video signs
- Message boards
- Variable message signs (VMS)
- Commercial outdoor advertising

Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
5464SUGD/MS	InGaN/SiC	Super Green	Green Diffused

Package Dimensions



Notes:

- Stopper tolerance is +0.2/-0.1mm .
- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	30	mA
Pulse Forward Current (Duty 1/10@ 1KHz)	I_{FP}	100	mA
Operating Temperature	T_{opr}	-40 ~ +85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40 ~ +100	$^{\circ}\text{C}$
Electrostatic Discharge	ESD	1000	V
Soldering Temperature	T_{sol}	260 $\pm$ 5	$^{\circ}\text{C}$
Power Dissipation	P_d	130	mW
Reverse Voltage	V_R	5	V

Notes: Soldering time $\leq$ 5 seconds.

Electro-Optical Characteristics (T_a=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _V	900	1300	--	mcd	I _F =20mA
Viewing Angle	2 θ _{1/2}	--	X:110Y:40	--	deg	
Peak Wavelength	λ _p	--	518	--	nm	
Dominant Wavelength	λ _d	--	525	--		
Spectrum Half width	Δ λ	--	35	--		
Forward Voltage	V _F	--	3.5	4.3	V	
Reverse Current	I _R	--	--	50	μ A	V _R =5V

Rank Combination (I_F=20mA)

Rank	J	K	L	M
Luminous Intensity	900~1125	1125~1425	1425~1800	1800~2250

*Measurement Uncertainty of Luminous Intensity: ±15%

Unit:mcd

Rank	T	U	V	W	X
Forward Voltage	3.3~3.5	3.5~3.7	3.7~3.9	3.9~4.1	4.1~4.3

*Measurement Uncertainty of Forward Voltage: ±0.1V

Unit:V

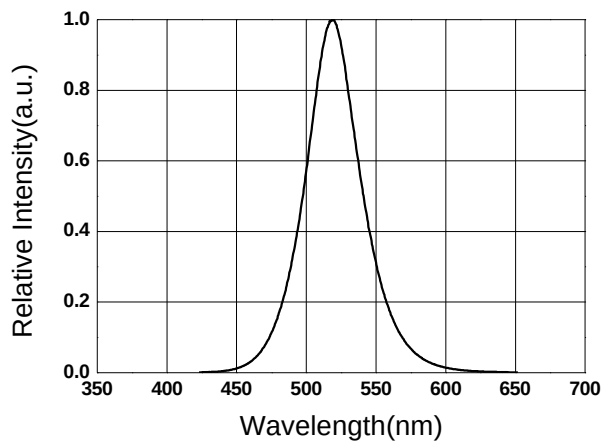
Rank	3	4	5	6	7
Dominant Wavelength	520~524	524~528	528~532	532~536	536~540

*Measurement Uncertainty of Dominant Wavelength ±1.0nm

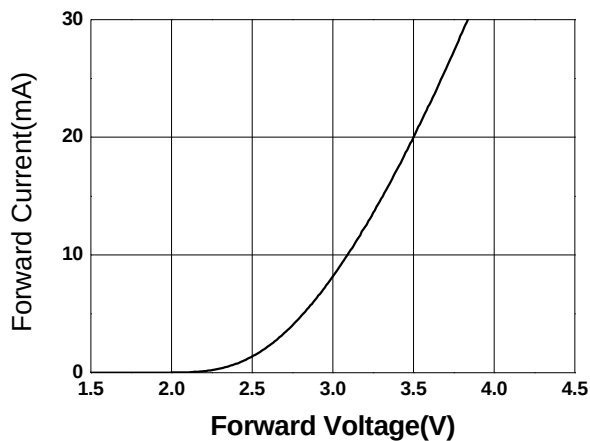
Unit:nm

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

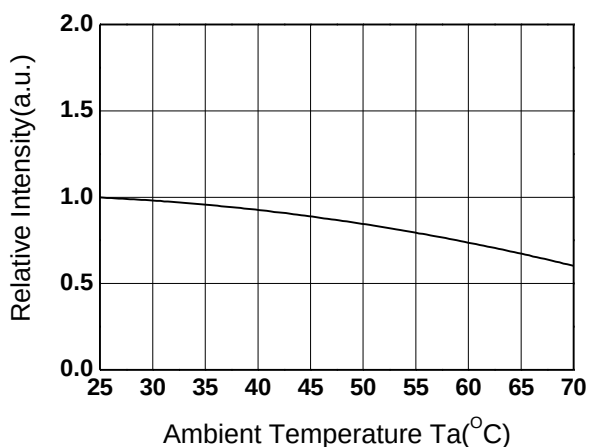
Relative Intensity vs. Wavelength



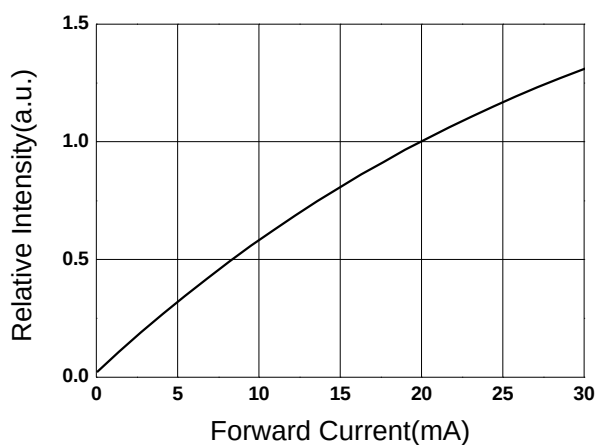
Forward Current vs. Forward Voltage



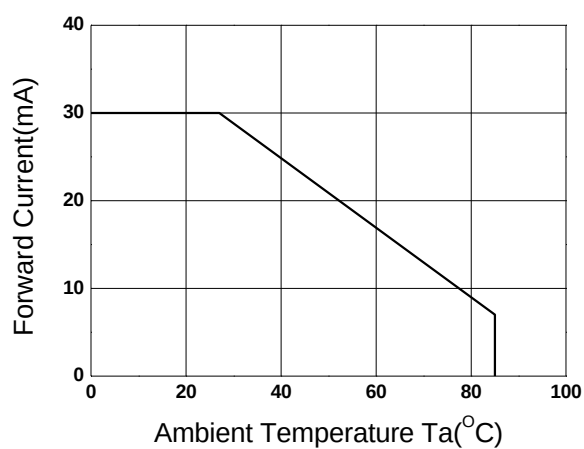
Relative Intensity vs. Ambient Temp



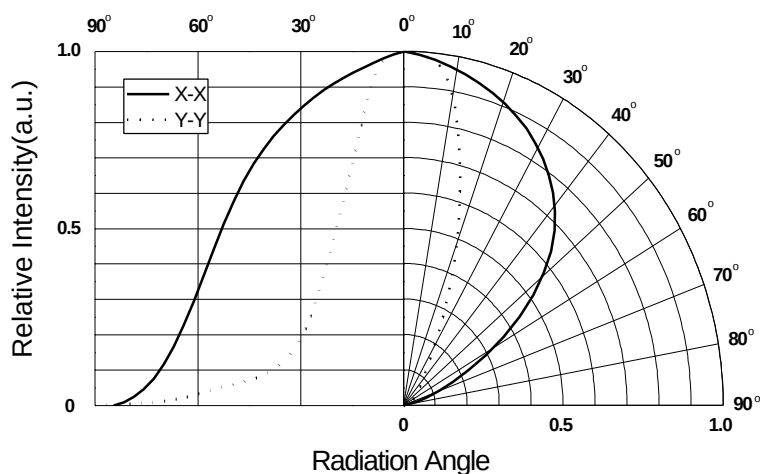
Forward Current vs. Relative Intensity



Forward Current vs. Ambient Temp.



Radiation Characteristics



Reliability Test Items And Results

No.	Items	Test Condition	Note	Number of Damaged
1	Temperature Cycle	100 °C => 25 °C => -40 °C => 25 °C 15min. 5min. 15min. 5min.	100cycles	0/22
2	Thermal Shock	100 °C => 25 °C => -10 °C => 25 °C 5min. 10sec. 5min. 10sec.	100cycles	0/22
3	Steady State Operating life of High Humidity heat	85 °C /R.H85% , I _F =20mA	1000hrs.	0/22
4	Steady State Operating life of High Temperature	Ta=85 °C , I _F =10mA	1000hrs.	0/22
5	Steady State Operating life of Low Temperature	Ta=-40 °C , I _F =10mA	1000hrs.	0/22
6	Steady State Operating life	Ta=25 °C , I _F =20mA	1000hrs.	0/22
7	Soldering heat	Temp.260 °C ±5 °C ,5sec	1 time	0/22

Criteria for Judging the Damage

Item	Symbol	Test Conditions	Criteria for Judgement	
			Min	Max
Forward Voltage	V _F	I _F =20mA	---	U ×1.1
Reverse Current	I _R	V _R =5V	---	U ×2.0
Luminous Intensity	I _V	I _F =20mA	L ×0.7	---

U :Upper Specification limit

L :Lower Specification limit



5464SUGD/MS

Packing Quantity Specification

1.500PCS/1Bag, 5Bags/1Box

2.10Boxes/1Carton

Label Form Specification

EVERLIGHT	
CPN:	
P/N:	
	
5464SUGD/MS	
QTY :	CAT:
	HUE:
LOT NO :	REF:
	
MADE IN TAIWAN	

CPN: Customer's Production Number

P/N : Production Number

5464SUGD/MS:Production name

QTY: Packing Quantity

CAT: Ranks of Luminous and Forward Voltage

HUE: Ranks of Dominant Wavelength

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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