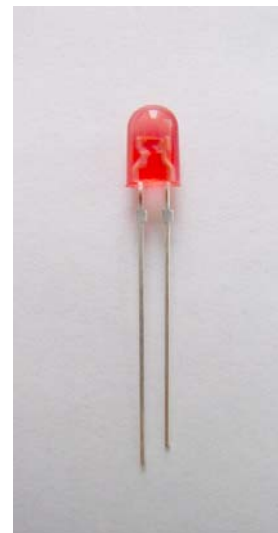


5474SURD/OMA-E12/X

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
- ESD-withstand voltage: up to 4KV
- Pb free
- The product itself will remain within RoHS compliant version.



Descriptions

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

Applications

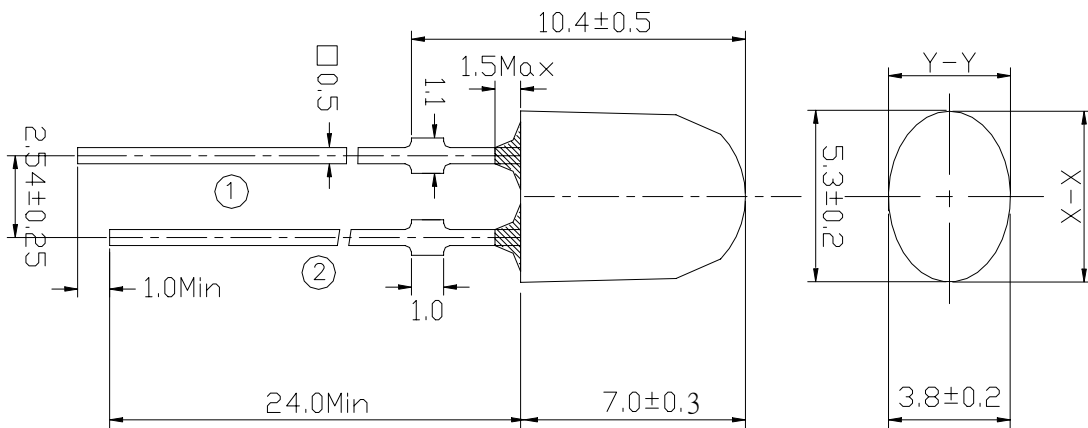
- Full color/video signs
- Message boards
- Variable message signs (VMS)
- Commercial outdoor advertising

Device Selection Guide

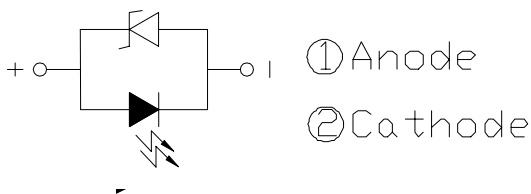
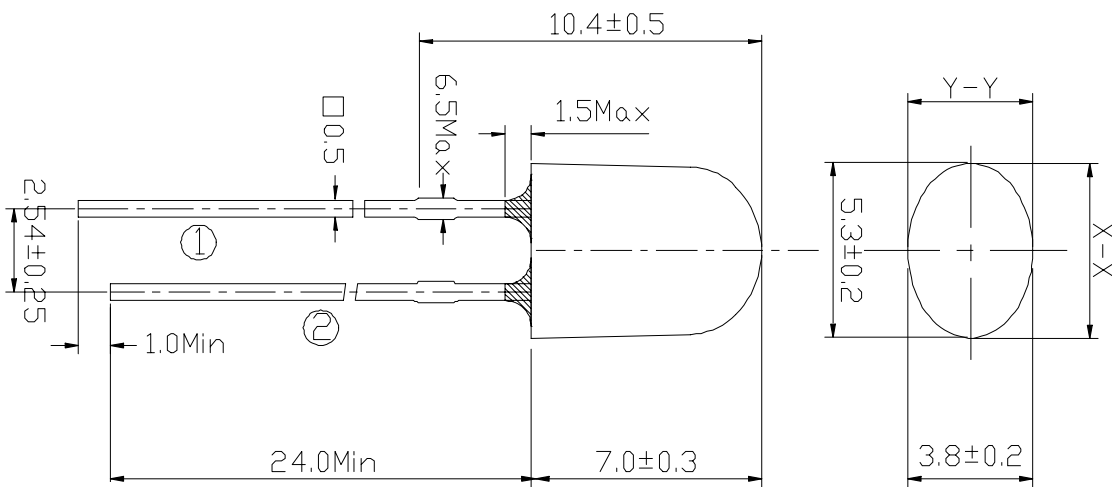
LED Part No.	Chip Material	Emitted Color	Lens Color	Stopper
5474SURD/OMA-E12	AlGaInP	Hyper red	Red Diffused	No
5474SURD/OMA-E12/P	AlGaInP	Hyper red	Red Diffused	Yes

Package Dimensions

Stopper Type



No Stopper Type



Notes:

- 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.



Technical Data Sheet

5474SURD/OMA-E12/X

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

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	50	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	4K	V
Soldering Temperature	T_{sol}	260 \pm 5	$^{\circ}\text{C}$
Power Dissipation	P_d	115	mW
Zener Reverse Current	I_z	100	mA

Notes: Soldering time \leq 5 seconds.

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	715	900	--	mcd	$I_F=20\text{mA}$
Viewing Angle	$2\theta_{1/2}$	--	X:110Y:40	--	deg	
Peak Wavelength	λ_p	--	632	--	nm	
Dominant Wavelength	λ_d	--	624	--		
Spectrum Half width	$\Delta\lambda$	--	20	--		
Forward Voltage	V_F	--	2.0	2.3	V	
Zener Reverse Voltage	V_z	--	--	3.0	V	$I_z=5\text{mA}$

Rank Combination ($I_F=20\text{mA}$)

Rank	H	J	K	L
Luminous Intensity	715~900	900~1125	1125~1425	1425~1800

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

Rank	K	L	M	N
Forward Voltage	1.7~1.9	1.9~2.1	2.1~2.3	2.3~2.5

*Measurement Uncertainty of Forward Voltage: $\pm 0.1\text{V}$ Unit:V

Rank	1	2	3
Dominant Wavelength	618~620	620~624	624~628

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

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

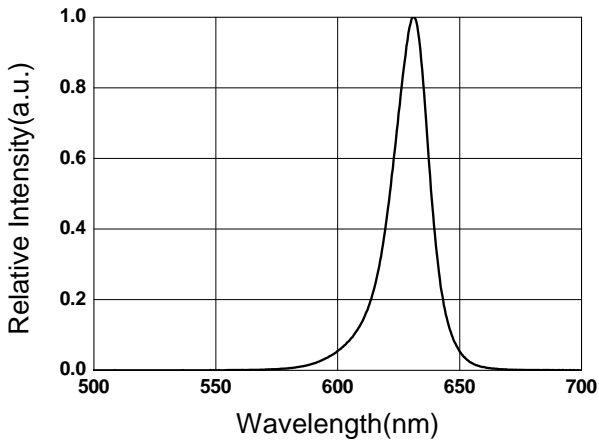


Technical Data Sheet

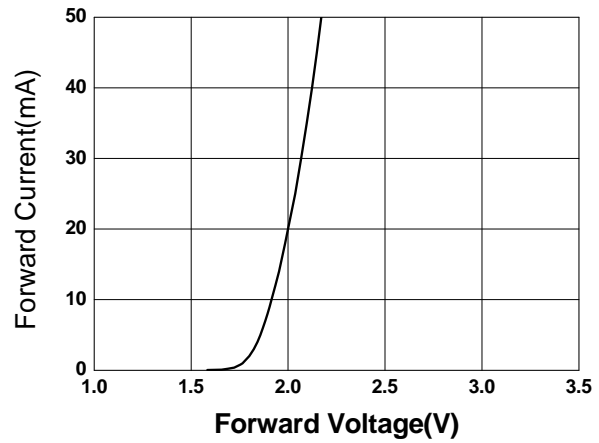
5474SURD/OMA-E12/X

Typical Electro-Optical Characteristics Curves

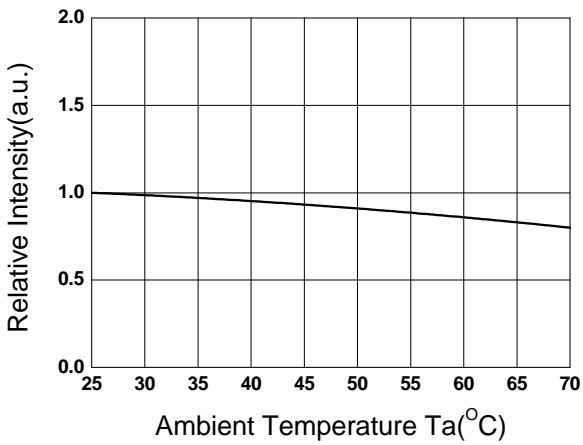
Relative Intensity vs. Wavelength



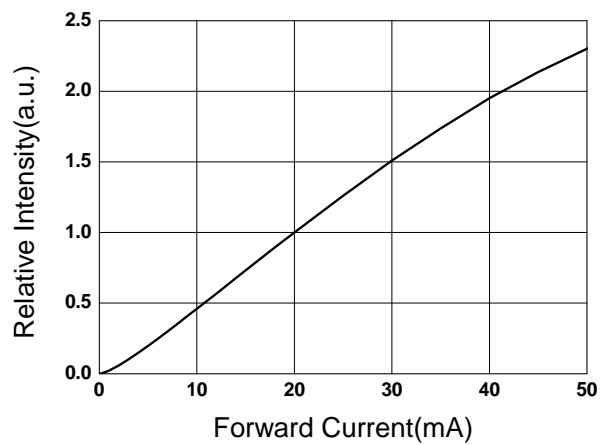
Forward Current vs. Forward Voltage



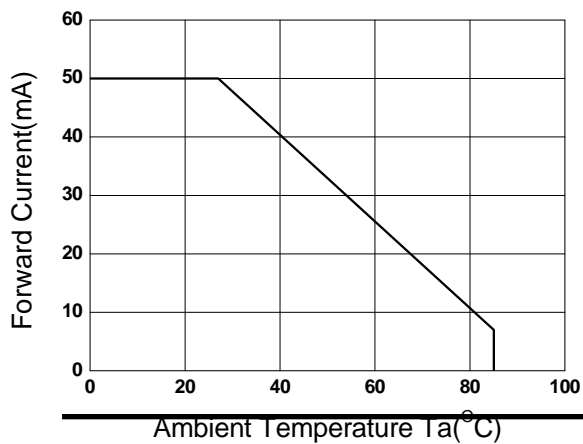
Relative Intensity vs. Ambient Temp



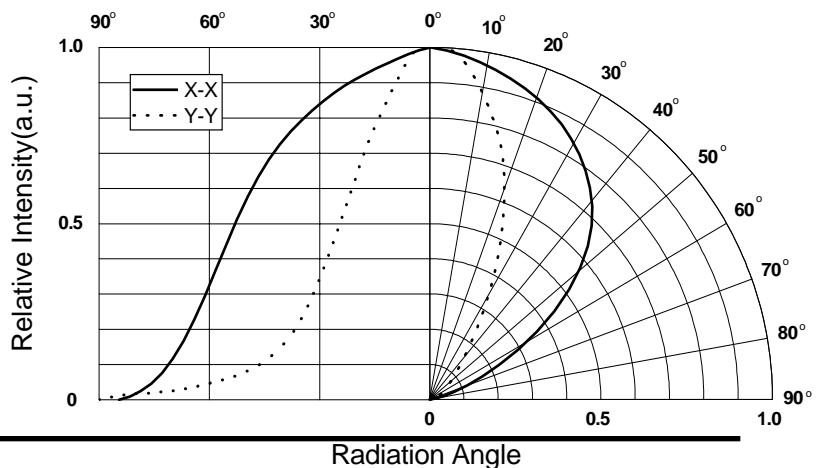
Forward Current vs. Relative Intensity



Forward Current vs. Ambient Temp.



Radiation Characteristics





Technical Data Sheet

5474SURD/OMA-E12/X

Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

Label Form Specification



CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks of Luminous and Forward Voltage

HUE: Ranks of Dominant Wavelength

REF: Reference

LOT No: Lot Number

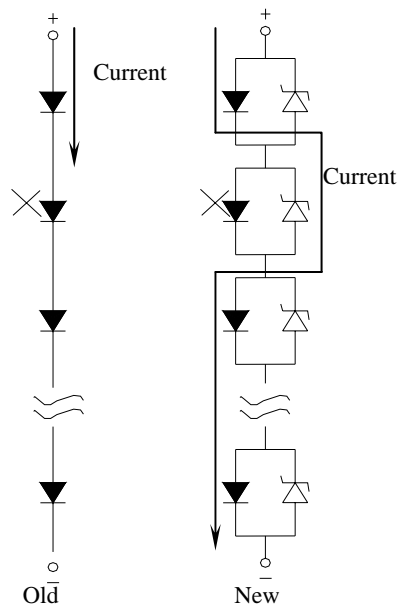
MADE IN TAIWAN: Production Place

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.
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. 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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