

# 6364/G1DA-ANQA/X/MS

#### **Features**

- High luminous intensity output
- Oval Shape
- Well defined spatial radiation
- Wide viewing angle  $(2 \theta_{1/2}) : 70^{\circ} / 40^{\circ}$
- UV resistant epoxy
- ESD-withstand voltage: up to 4KV
- 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 red and blue mixing color applications
- Superior performance in outdoor environment

### **Applications**

- Single or dual color graphic signs
- Message boards
- Variable message signs (VMS)
- Commercial outdoor advertising

#### **Device Selection Guide**

	Chip			
LED Part No.	Material	Emitted Color	Lens Color	Stopper
6364/G1DA-ANQA/MS	LON	Super Green	Green Diffused	NO
6364/G1DA-ANQA/P/MS	InGaN			YES

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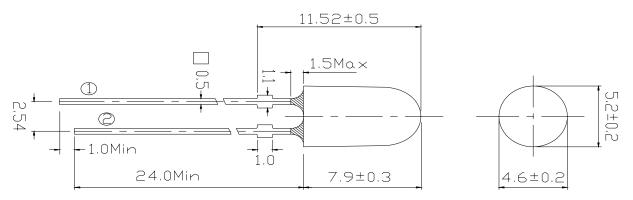
Device Number: DLE-636-025 Prepared date: 11-01-2005 Prepared by: Grace Shen



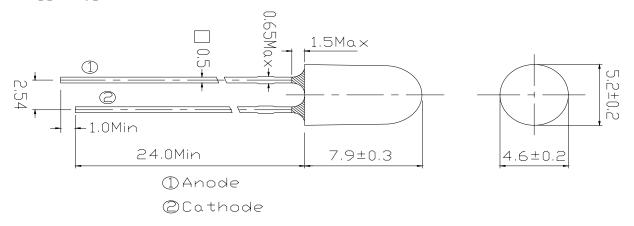
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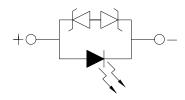
## **Package Dimensions**

#### **Stopper Type**



#### No Stopper Type





#### **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.

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## **Absolute Maximum Rating (Ta=25°C)**

Parameter	Symbol	<b>Absolute Maximum Rating</b>	Unit
Forward Current	$I_{\mathrm{F}}$	30	mA
Pulse Forward Current (Duty1/10@ 1KHz)	$I_{FP}$	100	mA
Operating Temperature	Topr	-40 ~ +85	$^{\circ}\!\mathbb{C}$
Storage Temperature	$T_{stg}$	-40 <b>~</b> +100	$^{\circ}\!\mathbb{C}$
Electrostatic Discharge	ESD	4K	V
Soldering Temperature	$T_{sol}$	260 ±5	$^{\circ}\!\mathbb{C}$
Power Dissipation	P <sub>d</sub>	110	mW
Zener Reverse Current	Iz	100	mA
Reverse Voltage	VR	5	V

Notes: Soldering time  $\leq 5$  seconds.

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity	$I_V$	2250	2850	4500	mcd	
Viewing Angle	$2 heta_{ ext{1/2}}$		X:70Y:40	-	deg	
Peak Wavelength	λp		518			T 20 A
Dominant Wavelength	$\lambda_d$		525		nm	$I_F=20\text{mA}$
Spectrum Half width	Δλ		35			
Forward Voltage	$V_{\mathrm{F}}$		3.2	3.6	V	
Zener Reverse Voltage	Vz	5.2			V	Iz=5mA
Reverse Current	$I_R$			10	$\mu$ A	V <sub>R</sub> =5V

### Rank Combination (I<sub>F</sub>=20mA)

Rank	N	P	Q
Luminous Intensity	2250~2850	2850~3600	3600~4500

\*Measurement Uncertainty of Luminous Intensity: ±15% Unit:mcd 0 2 3 Rank Forward Voltage 2.8~3.0 3.0~3.2 3.2~3.4 3.4~3.6

\*Measurement Uncertainty of Forward Voltage: ±0.1V

Rank	4	5
Dominant Wavelength	524~528	528~532

<sup>\*</sup>Measurement Uncertainty of Dominant Wavelength ±1.0nm

Unit:nm

Unit:V

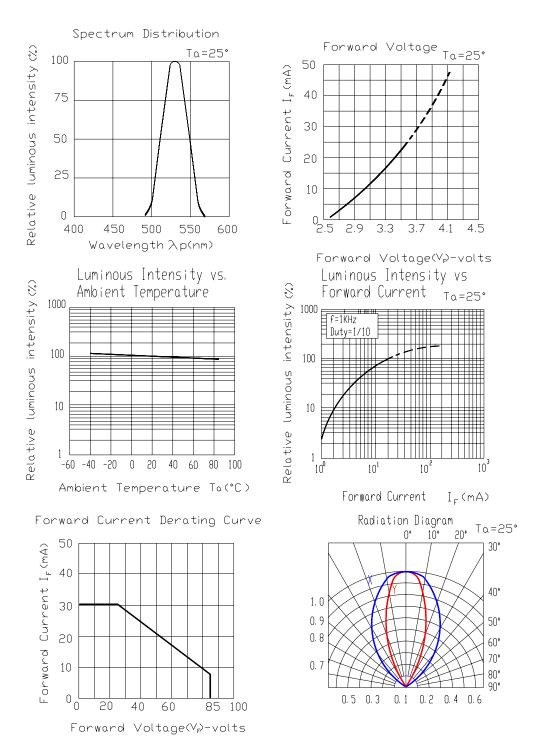
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<sup>\*</sup>The quantity ratio of the ranks is decided by EVERLIGHT.



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## **Typical Electro-Optical Characteristics Curves**



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### **Packing Quantity Specification**

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

#### **Label Form Specification**

**EVERLIGHT** 

CPN:

P/N:

6364/G1DA-ANQA/X/MS

QTY: CAT:

LOT NO: REF:

MADE IN TAIWAN

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

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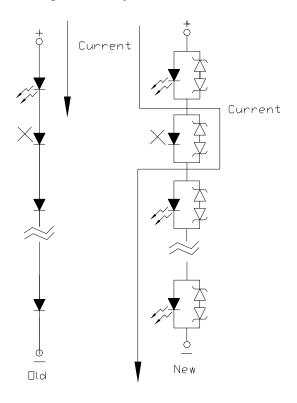
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#### **Notes**

- 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.
- 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 up.
- 5. 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.



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#### 6. Soldering Condition

Careful attention should be paid during soldering. When soldering, leave more then 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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