



## SPECIFICATION FOR LED LAMP

P/N : LR546DMN

Approved Sheet

Designed by	Qualified by	Approved by Customer

# LR546DMN

Spec. No. : GT-0210-09-025

## Features

- ◆ 5mm, Parallel Oval Shape
- ◆ Standard Lead Pitch
- ◆ Viewing Angle : 110°/50°

## Benefits

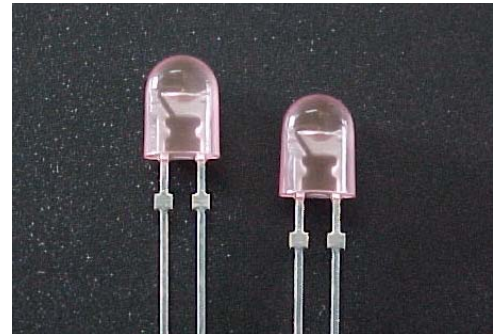
- ◆ High intensity
- ◆ Lower Power Consumption
- ◆ High Reliability and Firm and Solid
- ◆ Optimal Optical and Mechanical Design

## Applications

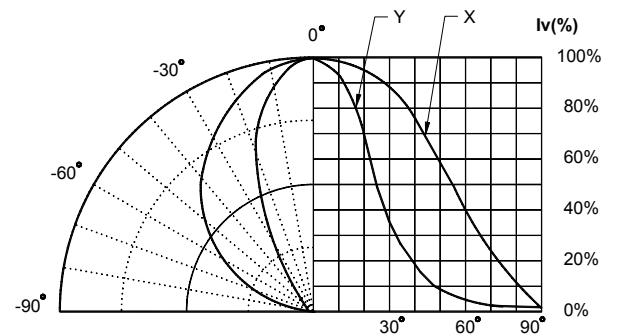
- ◆ For outer screen
- ◆ Electronic Signs and Signals
- ◆ Lighting
- ◆ General Purpose Indicators

## Description

- ◆ The 5mm parallel oval lamps are tinged, diffused ., The precise optical design takes fine or special radiant pattern. This characteristic provides suitable viewing angle and helpful for special lighting function..



LED Picture

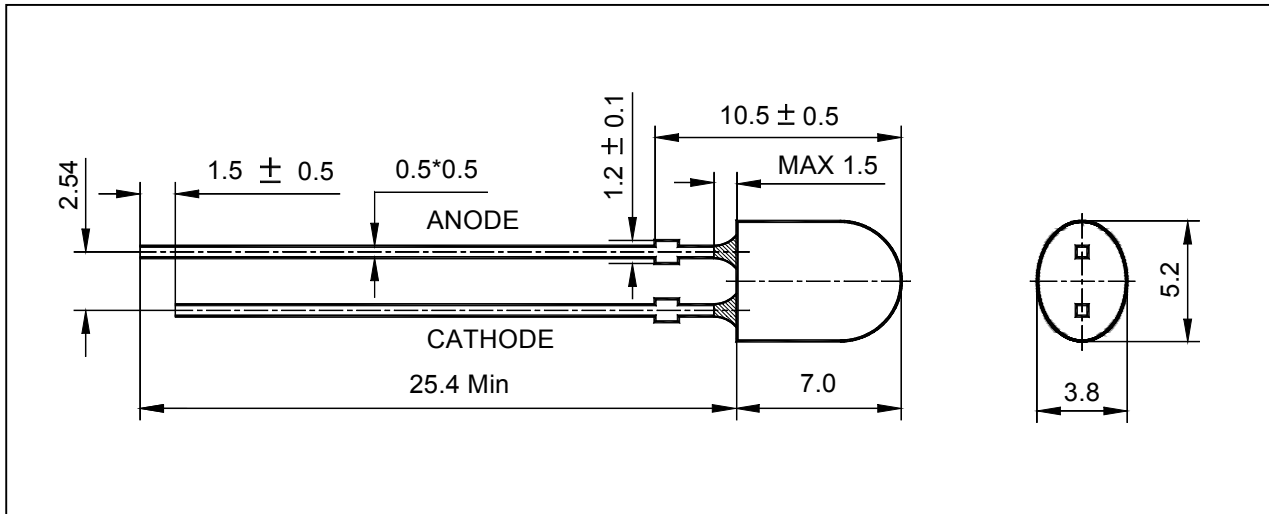


Beam Pattern

## Device Selection Guide

Part Number	Viewing Angle	Resin Color	LED Color	Chip Material	Stand OFF
LR546DMN	110°/50°	Color Diffused	Red	AlGaInP/GaAs	Yes

## Package Dimensions



- Notes:**
1. All dimensions are in millimeters
  2. Tolerance is  $\pm 0.20\text{mm}$  unless otherwise noted.
  3. Protruded resin under flange is 1.5mm max.
  4. Lead spacing is measured where the leads emerge from the package.
  5. Specifications are subject to change without notice.

## Absolute Maximum Rating at $T_a=25^\circ\text{C}$

Parameter	Value	Units
Power Dissipation	150	mW
Peak Forward Current(1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Forward Current	50	mA
Reverse Voltage	25	V
Operating Temperature Range	$-40^\circ\text{C}$ to $+80^\circ\text{C}$	
Storage Temperature Range	$-55^\circ\text{C}$ to $+100^\circ\text{C}$	
Lead Soldering Temperature(3mm From Body)	260 $^\circ\text{C}$ for 5 Seconds	

**Electrical Optical Characteristics at Ta=25℃**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
Luminous Intensity	$I_v$	120	----	----	mcd	$I_f=20mA$
Viewing Angle	$2\theta_{1/2}$	----	110/50	----	Deg.	$I_f=20mA$
Dominant Wavelength	$\lambda_d$	----	624	----	nm	$I_f=20mA$
Forward Voltage	$V_f$	----	2.0	2.4	V	$I_f=20mA$
Reverse Current	$I_r$	----	----	100	$\mu A$	$V_r=10V$

**Note:** 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity,  $2\theta_{1/2} = \theta_{1/2} + \theta_{1/2}$ .

**Bin Ranks**

Rank	A	B	C
Luminous Intensity ( $I_f = 20mA$ )	120~160 mcd	160~200 mcd	200~260 mcd
Rank	D	E	F
Luminous Intensity ( $I_f = 20mA$ )	260~340 mcd	340~450 mcd	450~580 mcd

**Note:** The quantity ratio of the ranks is decided by GVOPTO.

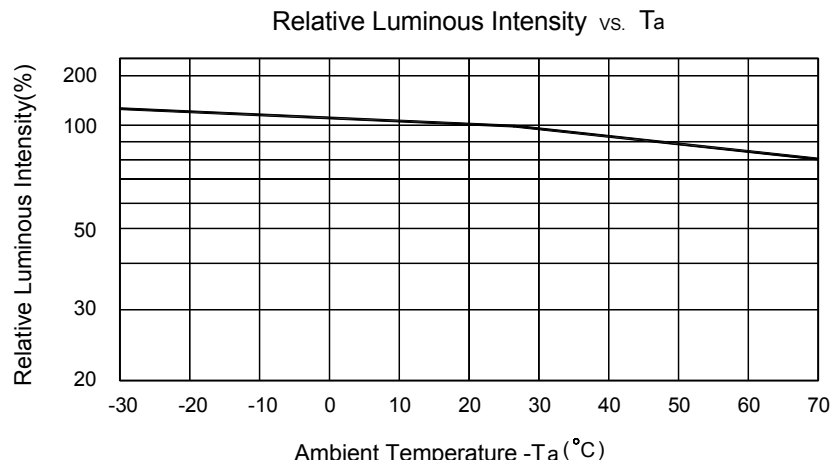
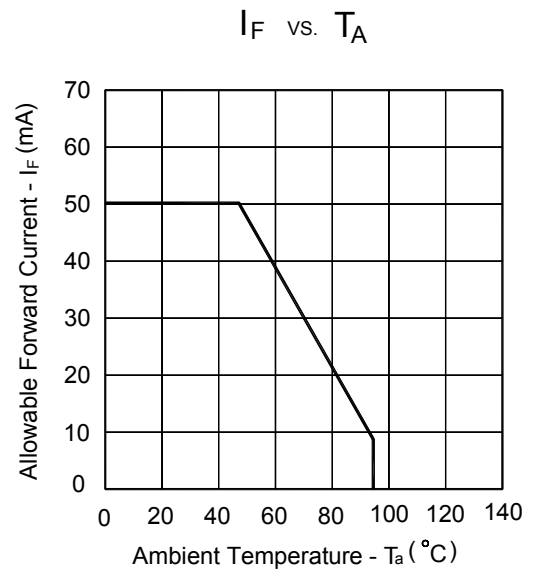
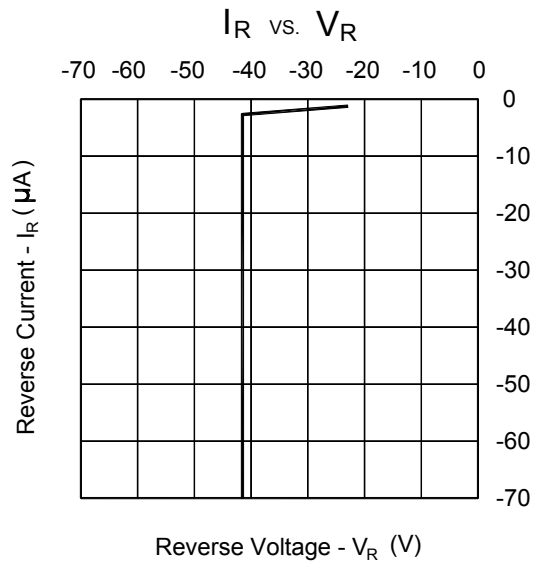
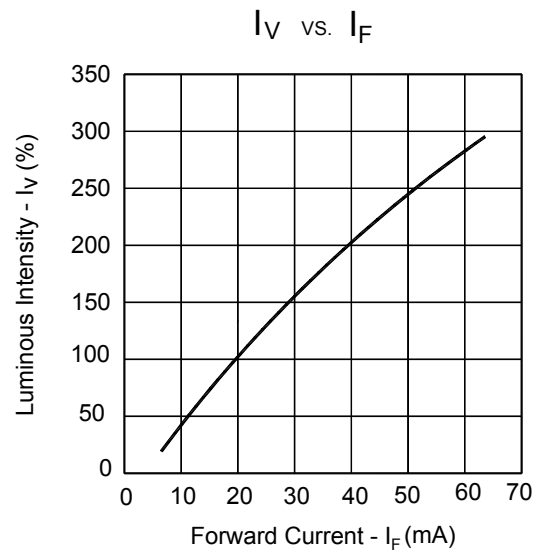
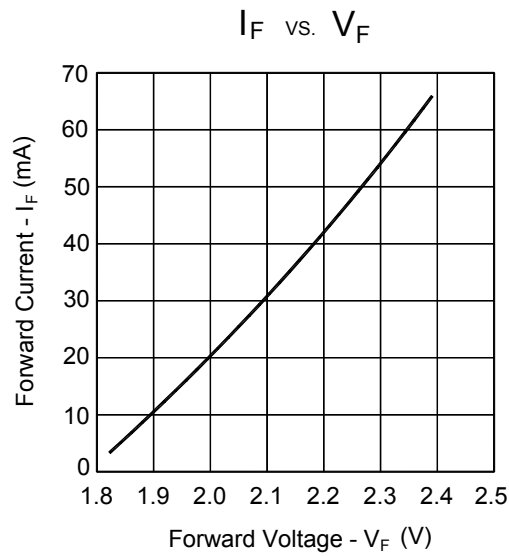
Measurement Uncertainty of the Luminous intensity :  $\pm 15\%$

Measurement Uncertainty of the Forward Voltage :  $\pm 0.1V$

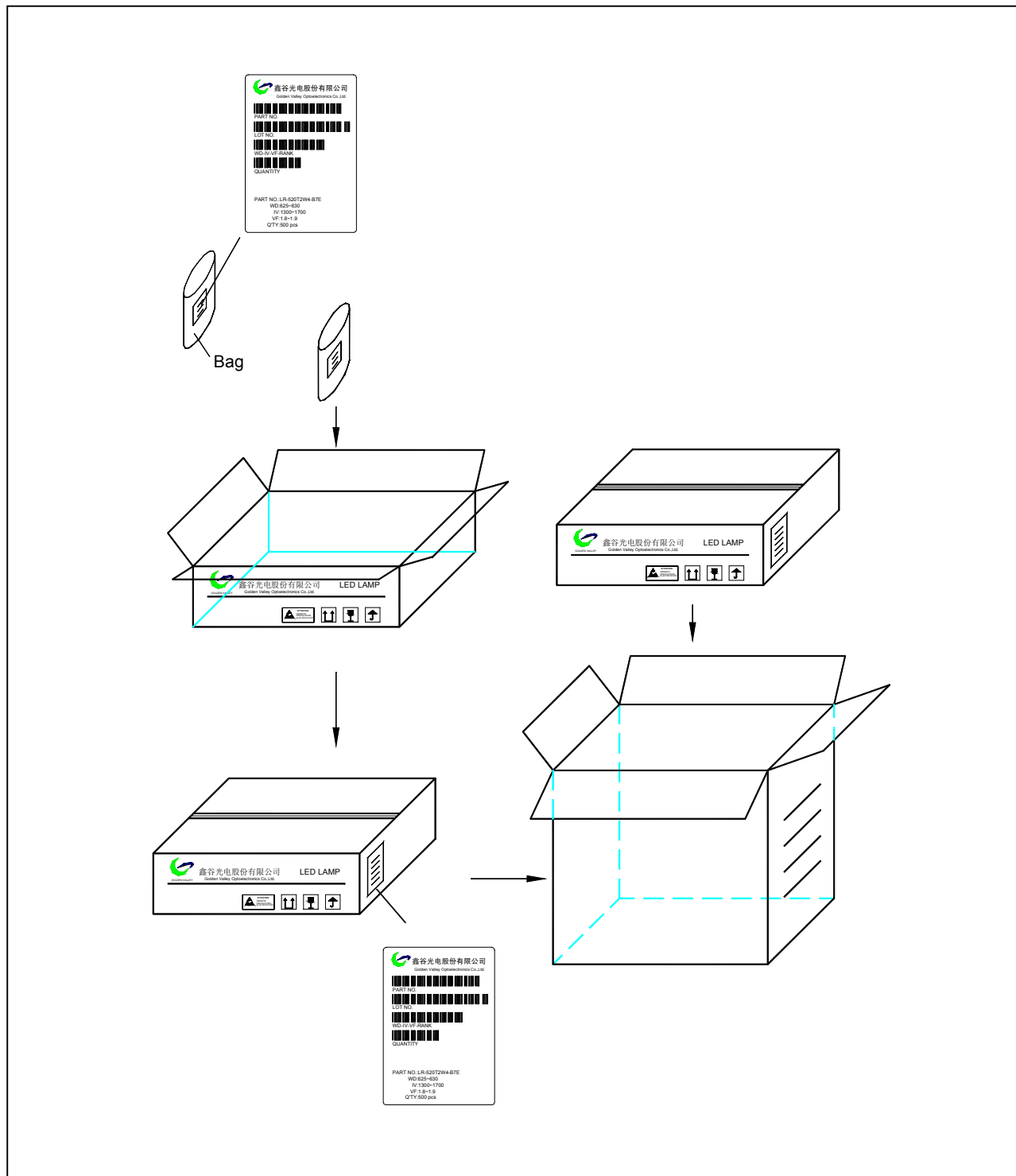
**Cautions on LED Usage**

1. Static electricity and surge will damage the LEDs. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
2. Use grounded soldering iron and do not solder the LEDs at the conditions beyond the absolute maximum ratings specified in the data sheet.
3. G.V. will not be held responsible for any damage caused by the operation exceeds the absolute maximum ratings.
4. Use the LEDs as soon as possible once the bag was opened. Store and use where there is no corrosive gas. The leads of LEDs will be rusty when the LEDs were exposed to the air for longer than one month.

Typical Electrical / Optical Characteristics Curves  
(25°C Ambient Temperature Unless Otherwise Noted)



## Packing Specification



### Notes :

1. Inner play bag is common products
2. 20 bags per inner box, 20 kpcs per inner box .
3. 3 inner box per outer box, 60 kpcs per outer box