



SPECIFICATION FOR LED LAMP

P/N : LR331CBG

Approved Sheet

Designed by	Qualified by	Approved by Customer

LR331CBG

Spec. No. : GT-0210-09-127

Features

- ◆ Standard T-1 package
- ◆ General purpose leads
- ◆ Viewing Angle : 25°

Benefits

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



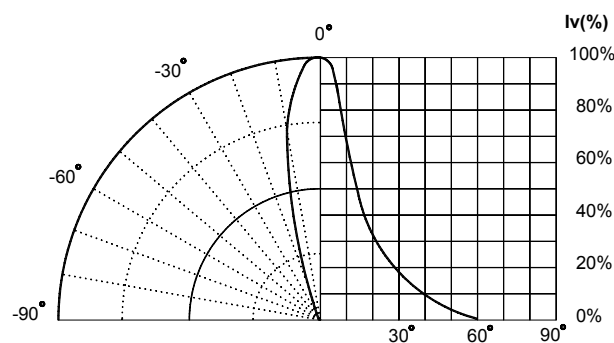
LED Picture

Applications

- ◆ Used in Traffic Sign Light
- ◆ Electronic Signs and Signals
- ◆ Small Area Illumination
- ◆ General Purpose Indicators
- ◆ Legend Backlighting

Description

- ◆ The T-1 lamps are untinged, nondiffused ., The precise optical design takes fine or special radiant pattern. This characteristic provides suitable viewing angle and helpful for special lighting function.

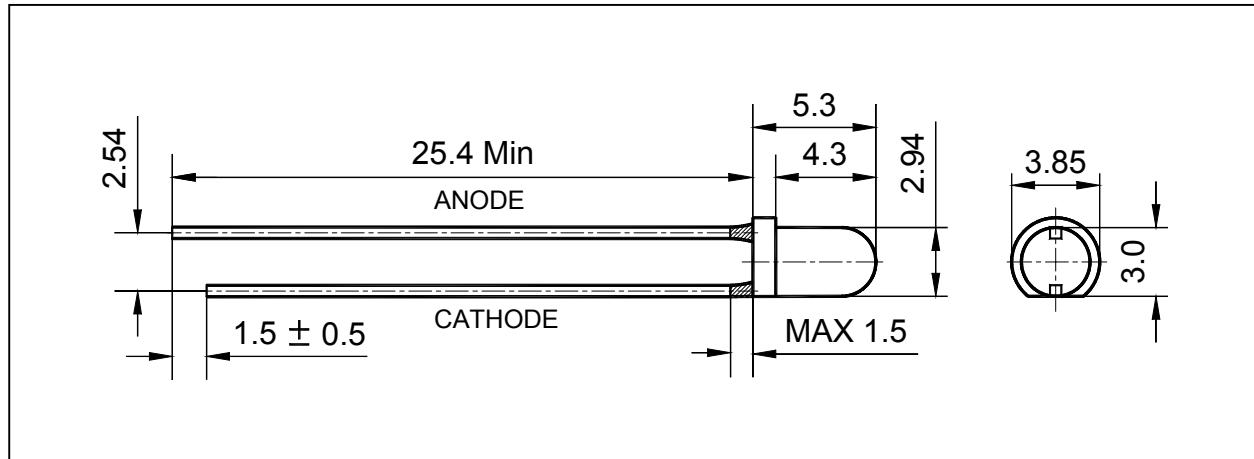


Beam Pattern

Device Selection Guide

Part Number	Viewing Angle	Resin Color	LED Color	Chip Material	Stand OFF
LR331CBG	25°	Water Clear	Red	AlGaInP/Al ₂ O ₃	No

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°C to $+80^\circ\text{C}$	
Storage Temperature Range	-55°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	2200	3200	----	mcd	$I_f=20mA$
Viewing Angle	$2\theta_{1/2}$	----	25	----	Deg.	$I_f=20mA$
Dominant Wavelength	λ_d	----	625	----	nm	$I_f=20mA$
Forward Voltage	V_f	----	2.2	2.6	V	$I_f=20mA$
Reverse Current	I_r	----	----	100	μA	$V_r=10V$

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	M	N	P
Luminous Intensity ($I_f = 20mA$)	2200~2800 mcd	2800~3600 mcd	3600~4700 mcd

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

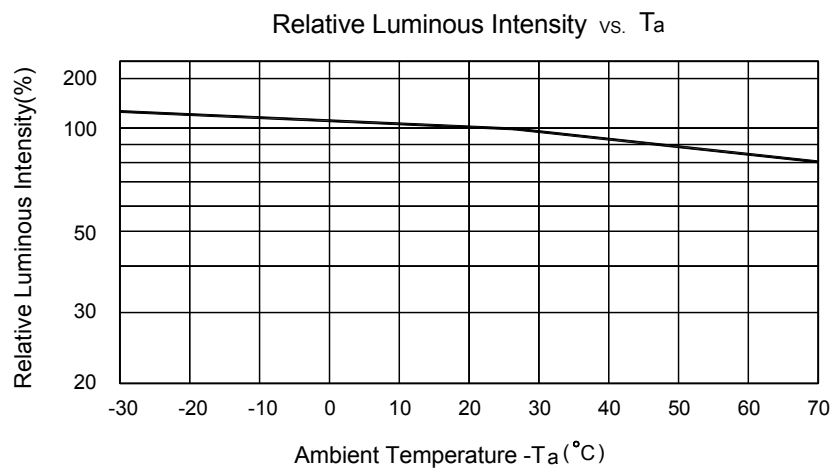
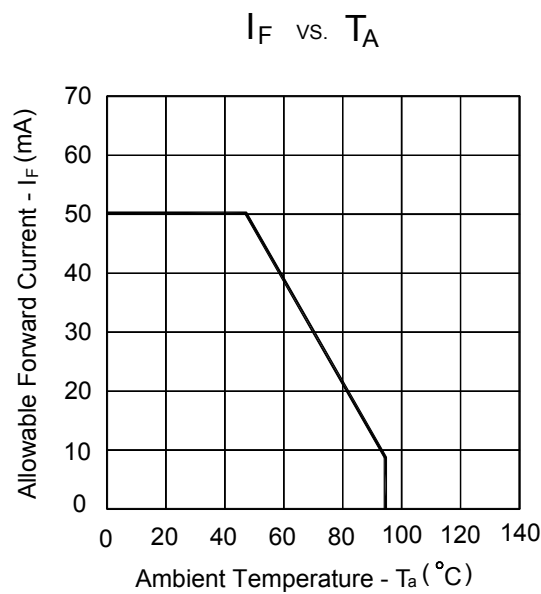
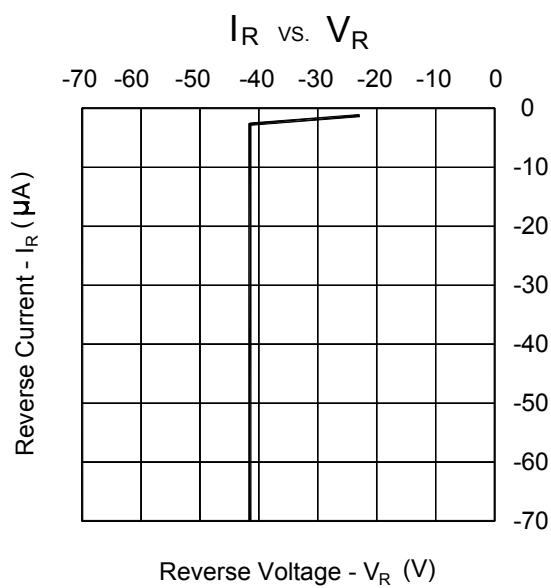
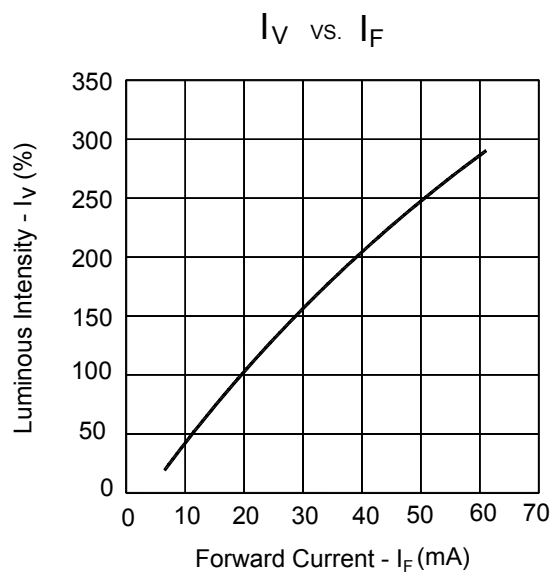
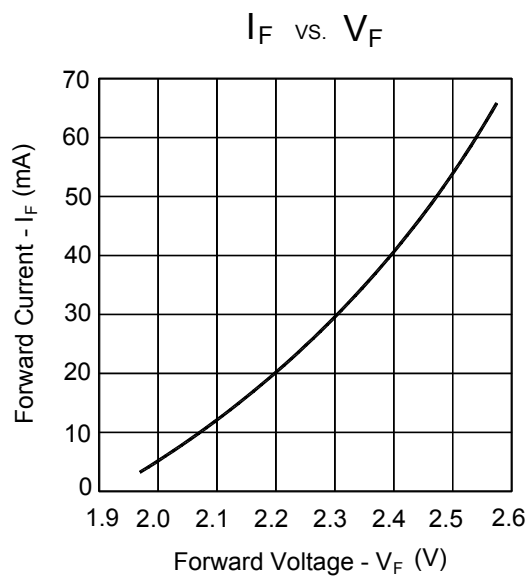
Measurement Uncertainty of the Luminous intensity : $\pm 15\%$

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

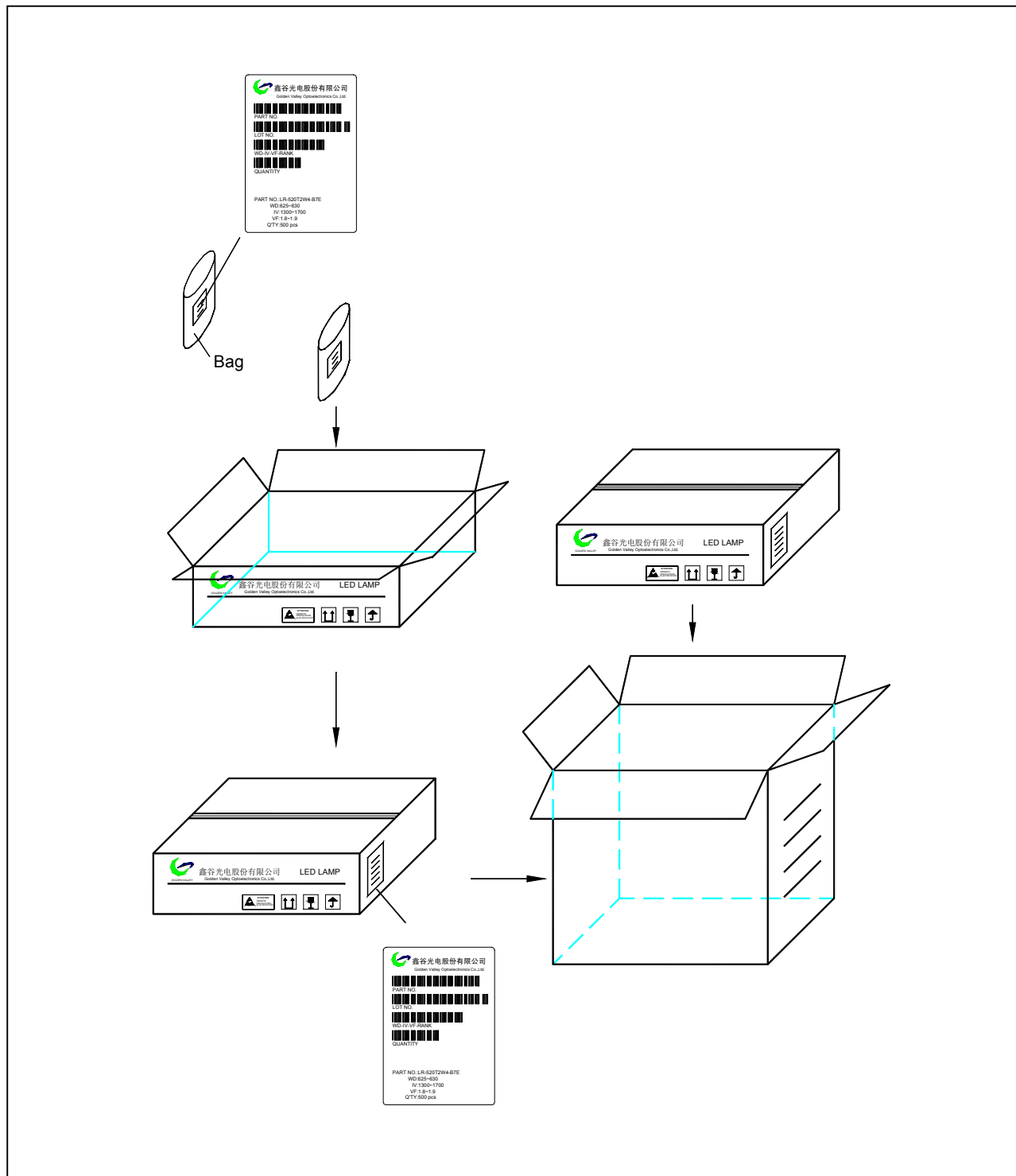
Cautions on LED Usage

1. Static electricity and electrical 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 in where there is no corrosive gas.
- The leads of LEDs will be rusted if the LEDs were exposed to the air in longer time

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