LEDTECH ELECTRONICS CORP.

NANYA ROAD,MUGANG ZHAOQING
CITY GUANGDONG CHINA.
TEL:86-758-2875541,2870651,2877464,2876185,2877017
FAX:86-758-2878014
Http://www.ledtech.com.tw

SPECIFICATION

PART NO. : LT2813-4D-UJF7

5.2×3.8mm OVAL LED LAMP

RoHS

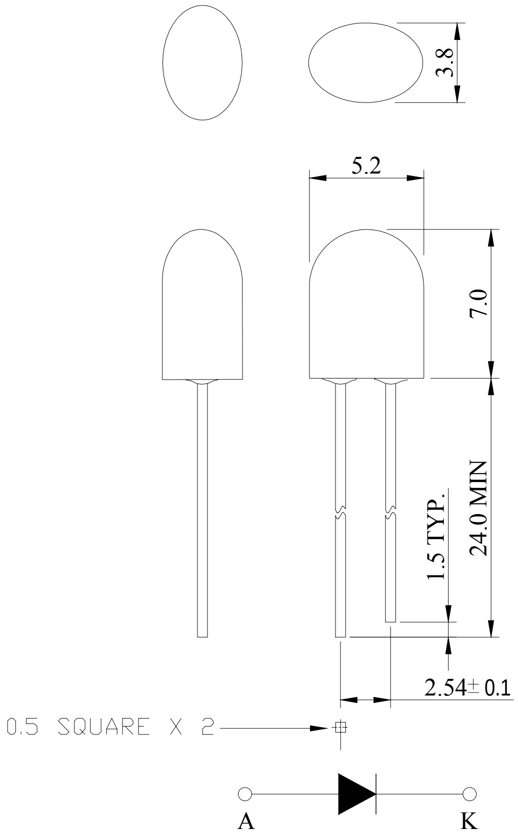
ATTENTION

**OBSERVE PRECAUTION
FOR HANDLING
ELECTRO STATIC
SENSITIVE
DEVICES**

Approved by	Checked by	Prepared by
Tung	*Yang*	*Min Bao*

Description

This hyper red lamp is made with AlGaInP/Si chip and water clear epoxy resin.



Notes:
1. All dimensions are in mm.
2. Tolerance is±0.25mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT2813-4D-UJF7	AlGaInP/Si	Hyper red	Water clear

Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	78	mW
Reverse Voltage	V_R	5	V
D.C. Forward Current	If	30	mA
Reverse (Leakage) Current	Ir	100	μA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	If(Peak)	100	mA
Operating Temperature Range	Topr.	-25 to +85	℃
Storage Temperature Range	Tstg.	-40 to +100	℃
Soldering Temperature(1.6mm from body)	Tsol.	Dip Soldering : 260℃ for 5 sec. Hand Soldering : 350℃ for 3 sec.	
Electrostatic discharge	ESD.	300	V

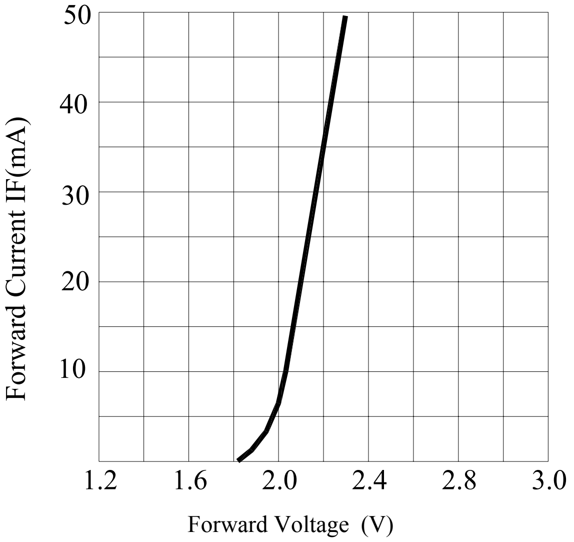
Electrical and Optical Characteristics:

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity		Iv	If=20mA	760	1500		mcd
Forward Voltage		Vf	If=20mA		2.1	2.6	V
Peak Wavelength		λp	If=20mA		632		nm
Dominant Wavelength		λd	If=20mA		625		nm
Reverse (Leakage) Current		Ir	Vr=5V			100	μA
ViewingAngle	Vertical	2θ1/2	If=20mA		40		deg
	Horizontal	2θ1/2	If=20mA		100		
Spectrum Line Halfwidth		Δλ	If=20mA		20		nm

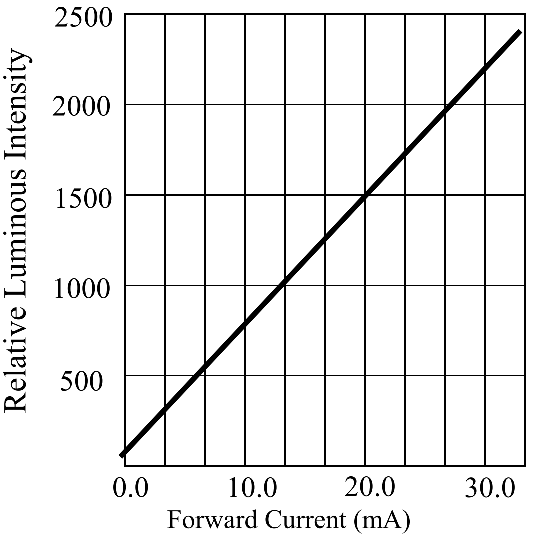
Notes: 1. The datas tested by IS tester.

2. Customer's special requirements are also welcome.

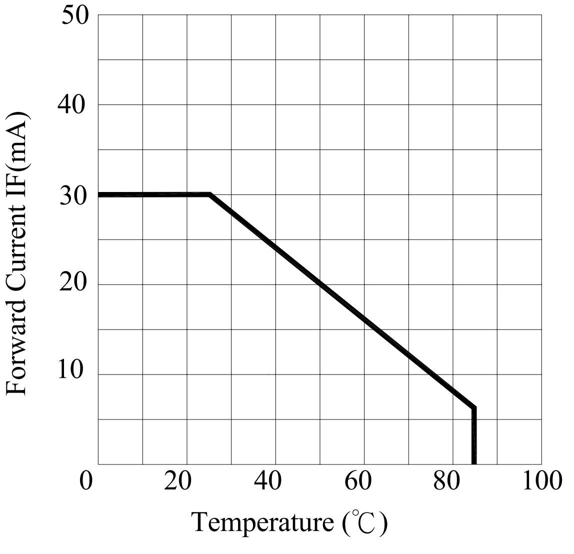
Typical Electrical / Optical Characteristics Curves :



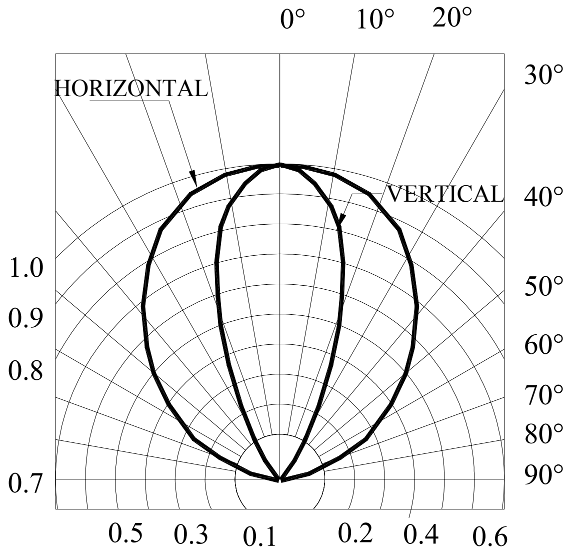
FORWARD CURRENT VS.APPLIED VOLTAGE



FORWARD CURRENT VS. LUMINOUS INTENSITY



FORWARD CURRENT VS. AMBIENT TEMPERATURE



RADIATION DIAGRAM

Precautions:

TAKE NOTE OF THE FOLLOWING IN USE OF LED

1. Temperature in use

Since the light generated inside the LED needs to be emitted to outside efficiently, a resin with high light transparency is used; therefore, additives to improve the heat resistance or moisture resistance (silica gel , etc) which are used for semiconductor products such as transistors cannot be added to the resin.

Consequently, the heat resistant ability of the resin used for LED is usually low; therefore, please be careful on the following during use.

Avoid applying external force, stress, and excessive vibration to the resins and terminals at high temperature. The glass transition temperature of epoxy resin used for the LED is approximately 120-130℃.

At a temperature exceeding this limit, the coefficient of liner expansion of the resin doubles or more compared to that at normal temperature and the resin is softened.

If external force or stress is applied at that time, it may cause a wire rupture.

2. Soldering

Please be careful on the following at soldering.

After soldering, avoided applying external force, stress, and excessive vibration until the products go to cooling process (normal temperature), <Same for products with terminal leads>

(1) Soldering measurements:

Distance between melted solder side to bottom of resin shall be 1.6mm or longer.

(2) Dip soldering :

Pre-heat: 90℃ max. (Backside of PCB), Within 60 seconds.

Solder bath: 260±5℃ (Solder temperature), Within 5 seconds.

(3) Hand soldering: 350℃ max. (Temperature of soldering iron tip), Within 3 seconds.

3. Insertion

Pitch of the LED leads and pitch of mounting holes need to be same.

4. Others

Since the heat resistant ability of the LED resin is low, SMD components are used on the same PCB, please mount the LED after adhesive baking process for SMD components. In case adhesive baking is done after LED lamp insertion due to a production process reason, make sure not to apply external force, stress, and excessive vibration to the LED and follow the conditions below.

Baking temperature: 120℃ max.   Baking time: Within 60 seconds.

If soldering is done sequentially after the adhesive baking, please perform the soldering after cooling down the LED to normal temperature.

ENCASED TYPE

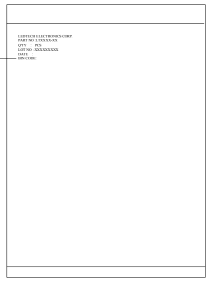
PLASTIC PACKAGE

QUANTITY: 200 PCS

LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX

Q'TY : PCS
LOT NO :XXXXXXXXXX

DATE :
BIN CODE:

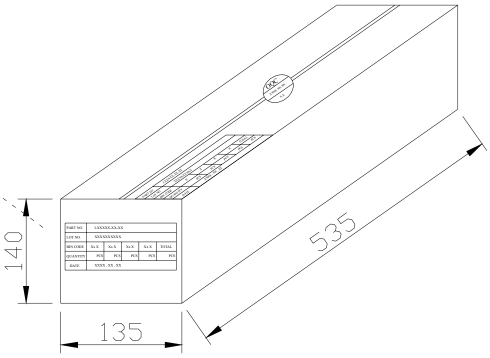


INNER BOX

QUANTITY: 40 PACKETS

TOTAL: 8,000 PCS

PART NO.	LXXXXX-XX-XX				
LOT NO.	XXXXXXXXXX				
BIN CODE	Xx X	Xx X	Xx X	Xx X	TOTAL
QUANTITY	PCS	PCS	PCS	PCS	PCS
DATE	XXXX , XX , XX				



OUTER CARTON

QUANTITY: 4 BOX

TOTAL: 32,000 PCS

C/T NO. 箱 號	XX
PART NO. 料 號	LXXXXX-XX-XX
QUANTITY 數 量	PCS
N.W. 净 重	KGS
G.W. 毛 重	KGS
REMARK 備 註