



LEDTECH ELECTRONICS CORP.

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SPECIFICATION

PART NO. : LT1814-81-UB91

5.0MM ROUND LED LAMP

Approved by	Checked by	Prepared by
<i>Jack</i>	<i>Jang</i>	<i>Bao Min</i>



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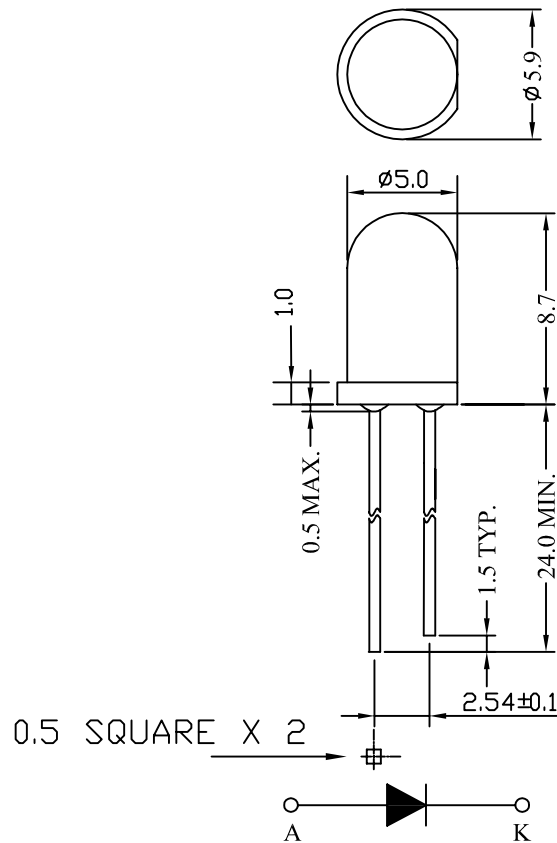
Features

- * High intensity
- * Reliable and rugged
- * Low current requirement
- * IC compatible

Description

The Hyper red lamp are made with AlGaInP/GaAs chip and Red clear epoxy resin.

Package Dimensions



Notes:

- 1.All dimensions are in millimeters.
- 2.Tolerance is ± 0.25 mm unless otherwise noted.

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT1814-81-UB91	AlGaInP/GaAs	Hyper red	Red Clear



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Absolute Maximum Ratings at Ta=25°C :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	72	mW
Reverse Voltage	Vr	4	V
D.C. Forward Current	If	30	mA
Peak Current (1/10 Duty Cycle , 0.1 ms Pulse Width)	If(Peak)	100	mA
Operating Temperature Range	Topr	-25 to +85	°C
Storage Temperature Range	Tstg	-40 to +100	°C
Lead Soldering Temp.(1.6mm from body) for 5 seconds		260	°C

Electrical and Optical Characteristics :

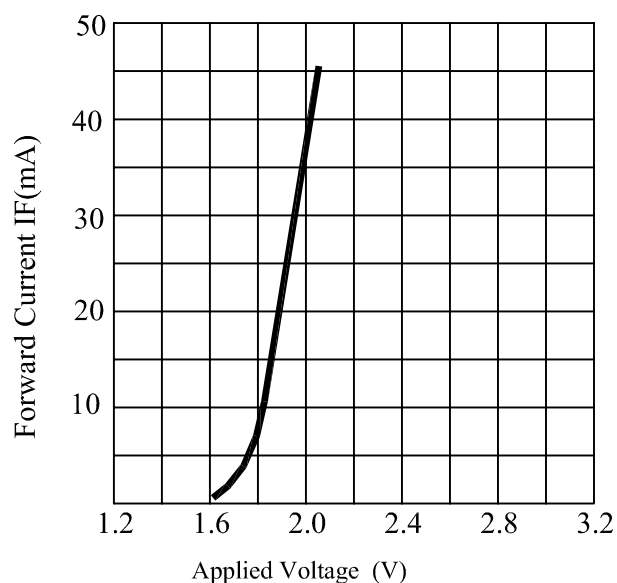
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA	1300	2200		mcd
Forward Voltage	Vf	If=20mA		1.9	2.4	V
Peak Wavelength	λP	If=20mA		632		nm
Dominant Wavelength	λD	If=20mA		625		nm
Reverse Current	Ir	Vr=4V			100	μA
Viewing Angle	$2 \theta 1/2$	If=20mA		10		deg
Spectrum Line Halfwidth	$\Delta \lambda$	If=20mA		20		nm



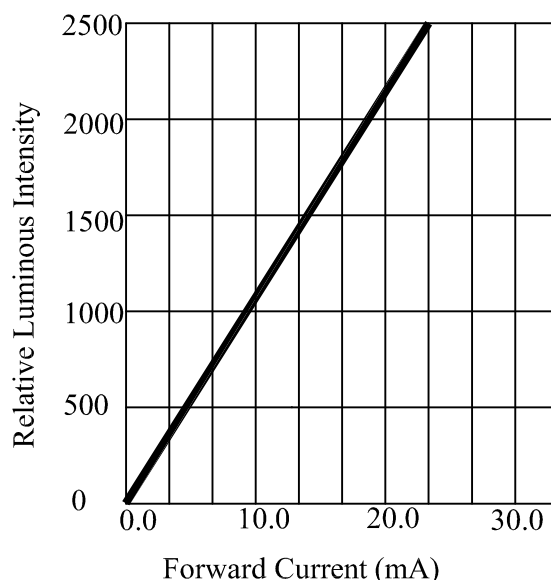
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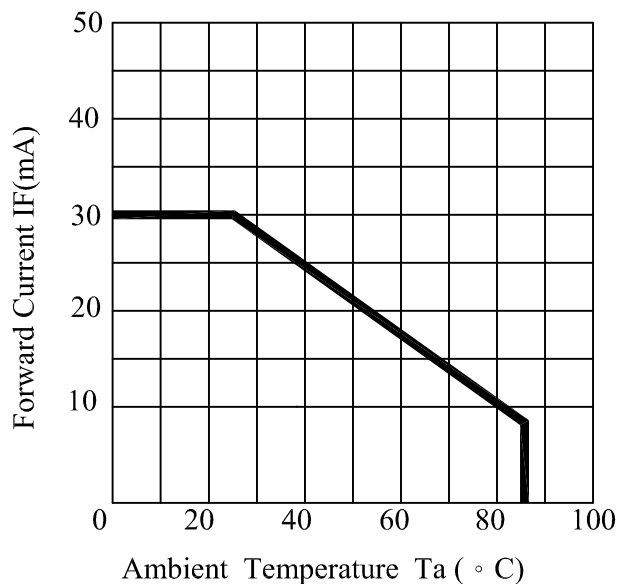
Typical Electrical / Optical Characteristics Curves :



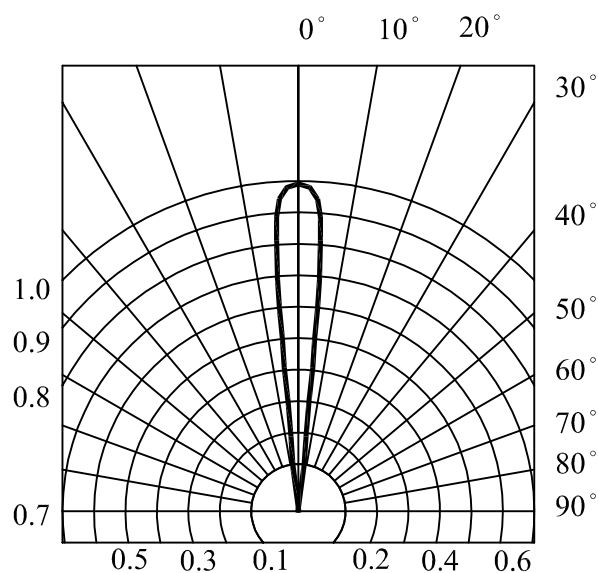
FORWARD CURRENT VS. APPLIED VOLTAGE



FORWARD CURRENT VS. LUMINOUS INTENSITY



AMBIENT TEMPERATURE VS. FORWARD CURRENT



RADIATION DIAGRAM



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Reliability Test Method :

Test Item	Test Condition	Duration Time
Operation Life	If=20mA / Ta=25°C	168hrs
Storage at High Temperature	Ta=100°C	168hrs
Storage at Low Temperature	Ta=-40°C	168hrs
Storage at High Temperature/High Humidity	Ta=85°C /RH=85%	168hrs
Operating at High Temperature	Ta=85°C / If=20mA	168hrs
Operating at Low Temperature	Ta=-25°C / If=20mA	168hrs
Thermal Shock	Ta/T=100°C/30min~ -40°C/30min	10 cycles
Solderability	Tsol=230°C	5 sec

Criteria for Judging The Damage:

Item	Symbol	Test Condition	Criteria for Judgment	
			Min.	Max.
Forward Voltage	Vf	If=20mA	-----	Initial Data x1.1
Reverse Current	Ir	Vr=4V	-----	100 μ A
Luminous Intensity	Iv	If=20mA	Initial Data x0.8	-----



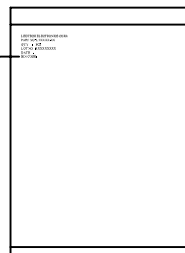
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ENCASED TYPE

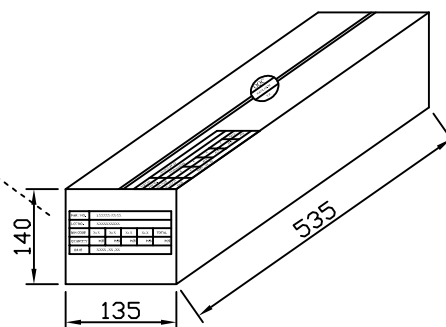
PLASTIC PACKAGE
QUANTITY: 1,000 PCS

LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
Q'TY : PCS
LOT NO :XXXXXXXXXX
DATE :
BIN CODE:



INNER BOX
QUANTITY: 10 PACKETS
TOTAL: 10,000 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: 40,000 PCS

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

