



LEDTECH ELECTRONICS CORP.

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SPECIFICATION

PART NO. : LT18W2-86-URE5

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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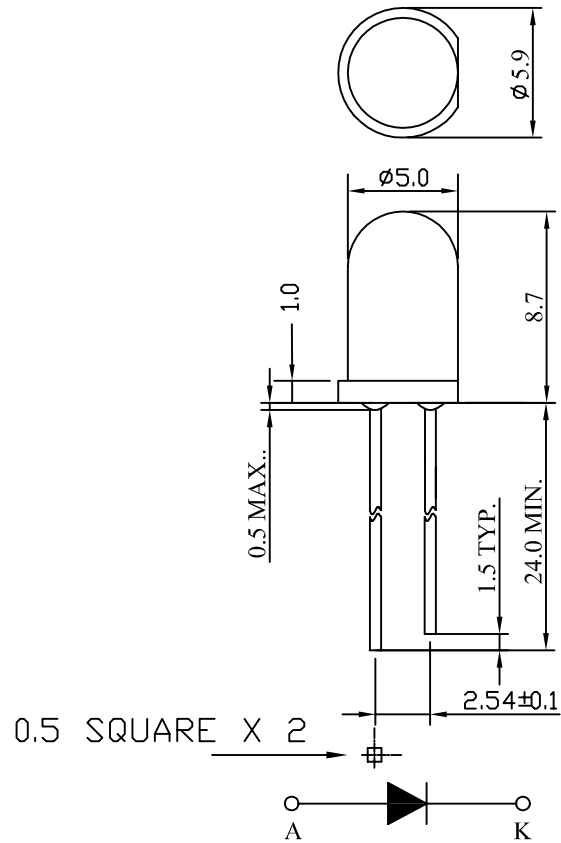
Features

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

Description

The White lamp are made with
InGaN/Sapphire chip and
white diffused 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	
LT18W2-86-URE5	InGaN/Sapphire	White	White diffused



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Absolute Maximum Ratings at Ta=25°C :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	70	mW
Reverse Voltage	Vr	5	V
D.C. Forward Current	If	20	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
Electrostatic discharge (ESD)		300	V

Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA	220	380		mcd
Forward Voltage	Vf	If=20mA		3.2	3.5	V
CIE Chronaticity coordinates: X Axis	X	If=20mA		0.290		
CIE Chronaticity coordinates: Y Axis	Y	If=20mA		0.300		
Reverse Current	Ir	Vr=5V			50	μ A
Viewing Angle	2 θ 1/2	If=20mA		46		deg
Spectrum Line Halfwidth	Δ λ	If=20mA		26		nm



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

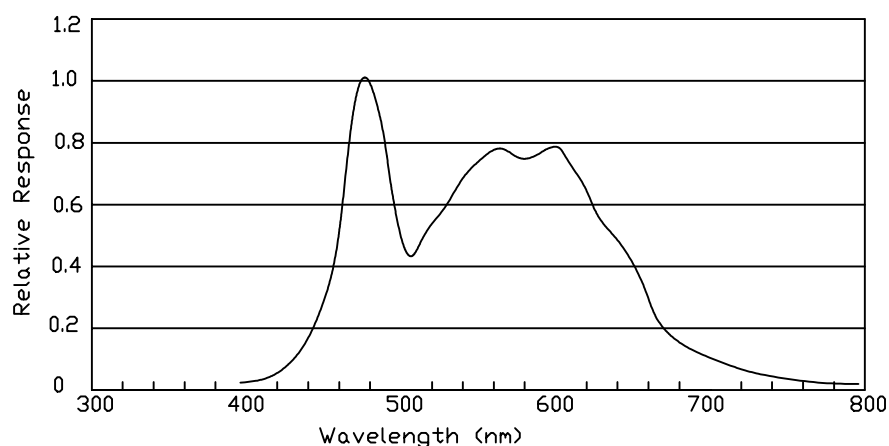
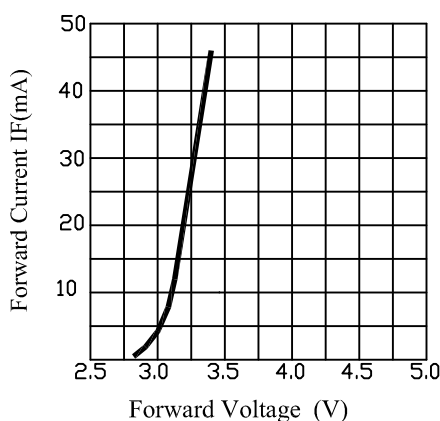
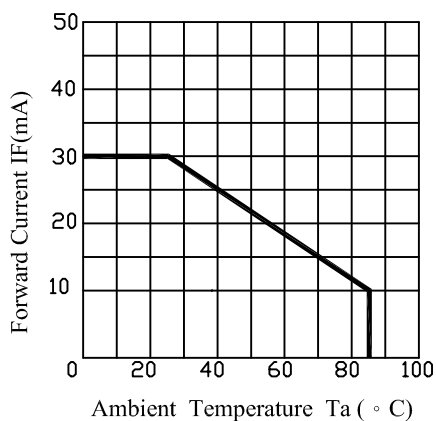
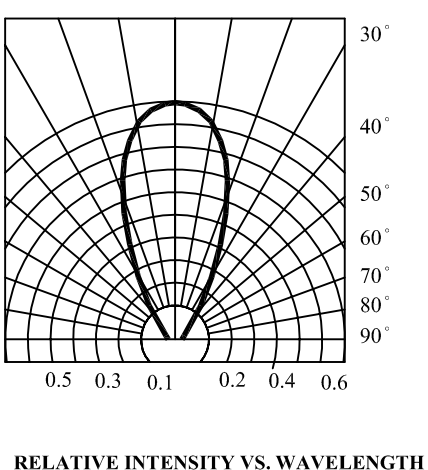
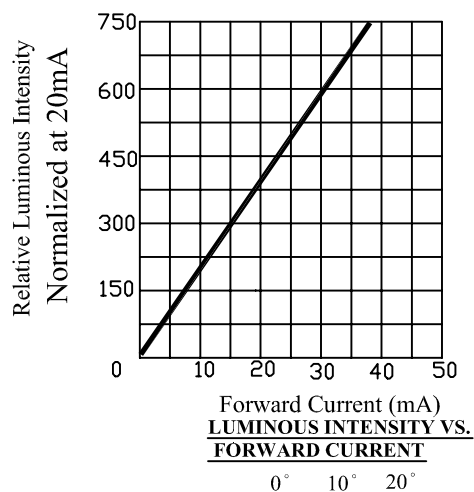


Fig.1 WHITE LED Spectrum VS. WAVELENGTH



FORWARD CURRENT VS. APPLIED VOLTAGE



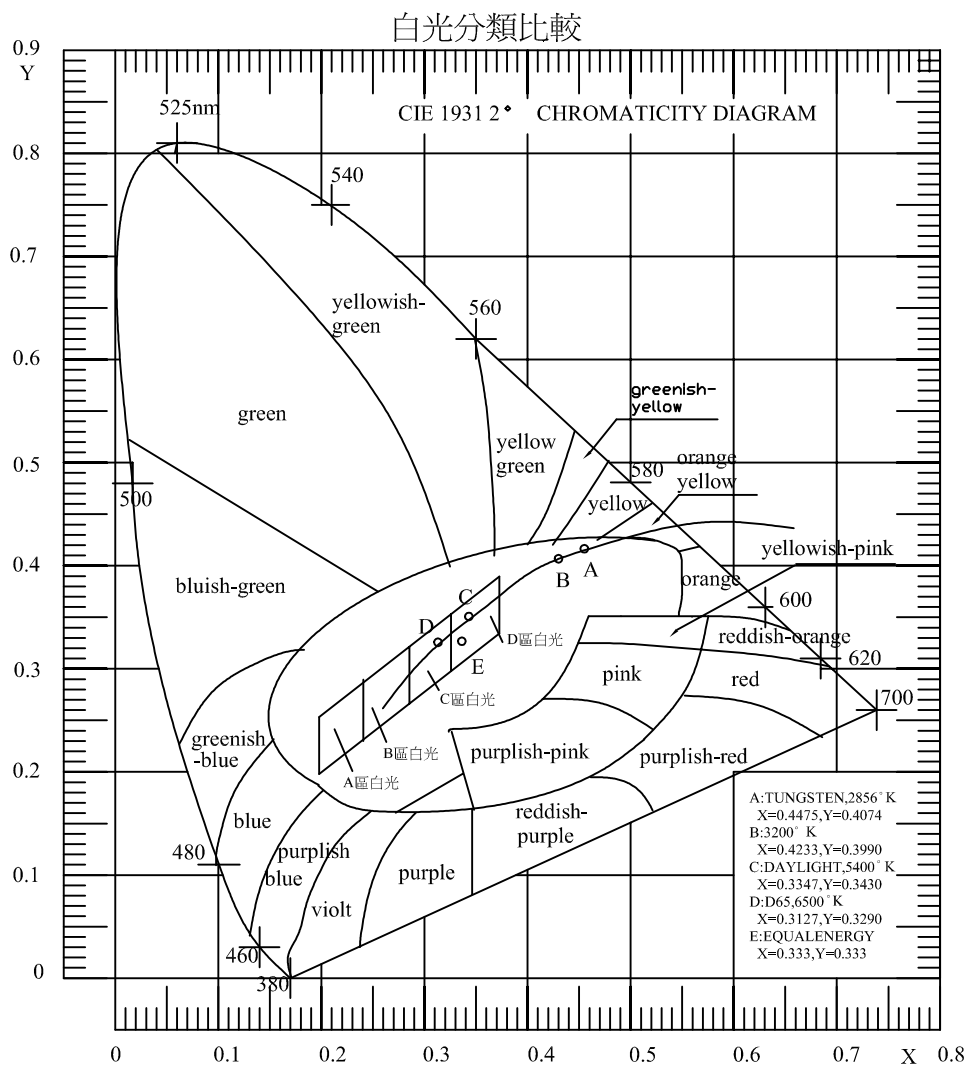
FORWARD CURRENT VS. AMBIENT TEMPERATURE



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Rank	Chromaticity Coordinates(Ledtech Preliminary)								
A	X	0.22	0.22	0.26	0.26				
	Y	0.22	0.28	0.31	0.25				
B	X	0.26	0.26	0.29	0.29				
	Y	0.25	0.31	0.33	0.27				
C	X	0.29	0.29	0.32	0.32				
	Y	0.27	0.33	0.35	0.29				
D	X	0.32	0.32	0.36	0.36				
	Y	0.29	0.35	0.38	0.32				
Tolerance		X= ± 0.02		Y= ± 0.02					



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Reliability Test Method :

Test Item	Test Condition	Duration Time
Operation Life	If=20mA / Ta=25℃	168hrs
Storage at High Temperature	Ta=100℃	168hrs
Storage at Low Temperature	Ta=-40℃	168hrs
Storage at High Temperature/High Humidity	Ta=85℃ /RH=85%	168hrs
Operating at High Temperature	Ta=85℃ / If=20mA	168hrs
Operating at Low Temperature	Ta=25℃ / If=20mA	168hrs
Thermal Shock	Ta/T=100℃/30min~ -40℃/30min	10 cycles
Solderability	Tsol=230℃	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=5V	-----	50 μ A
Luminous Intensity	Iv	If=20mA	Initial Data x0.8	-----



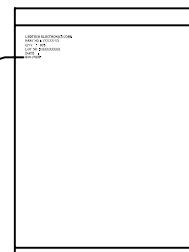
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ENCASED TYPE

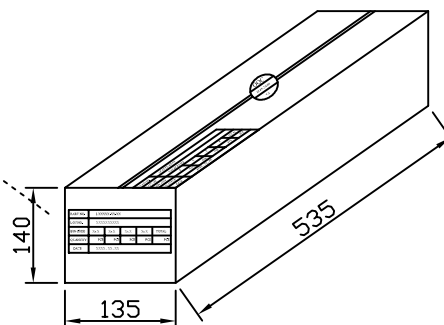
PLASTIC PACKAGE
QUANTITY: 200 PCS

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



INNER BOX
QUANTITY: 30 PACKETS
TOTAL: 6,000 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: 24,000 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	

