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SPECIFICATION

EPART NO. : LT8VW3-AH-UAC2

HIGH POWER AUTOMATIVE LED

Approved by

Checked by

Prepared by

Fang Po

Yang

Lian

REV:1 Take effect date:



HIGH POWER AUTOMATIVE LED

PART NO. : LT8VW3-AH-UAC2

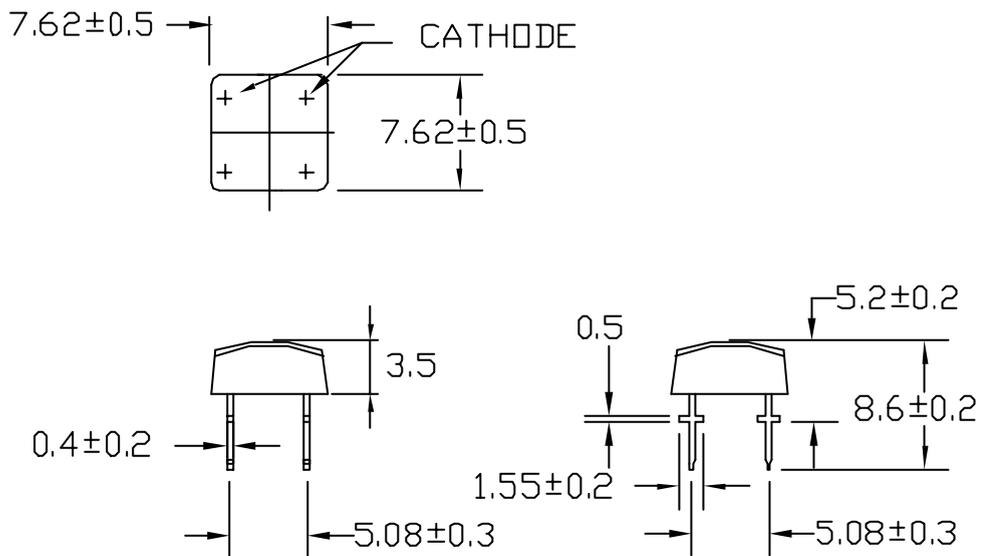
Features

- * High Intensity
- * Reliable and Rugged
- * Low Currnet Requirement
- * IC Compatible

Description

The white lamps are made with InGaN chips and water 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	
LT8VW3-AH-UAC2	InGaN	White	Water clear



HIGH POWER AUTOMATIVE LED
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Absolute Maximum Ratings at Ta=25 :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	84	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	-30 to +85	
Storage Temperature Range	Tstg	-40 to +100	
Lead Soldering Temp.(1.6mm from body) for 5 seconds		260	
Electrostatic discharge (ESD)		300	V

Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA	200	400		mcd
Forward Voltage	Vf	If=20mA		3.5	4.2	V
CIE Chronaticity coordinates: X Axis	X	If=20mA		0.310		
CIE Chronaticity coordinates: Y Axis	Y	If=20mA		0.300		
Reverse Current	Ir	Vr=5V			50	μ A
Viewing Angle	2 1/2	If=20mA		50		deg



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

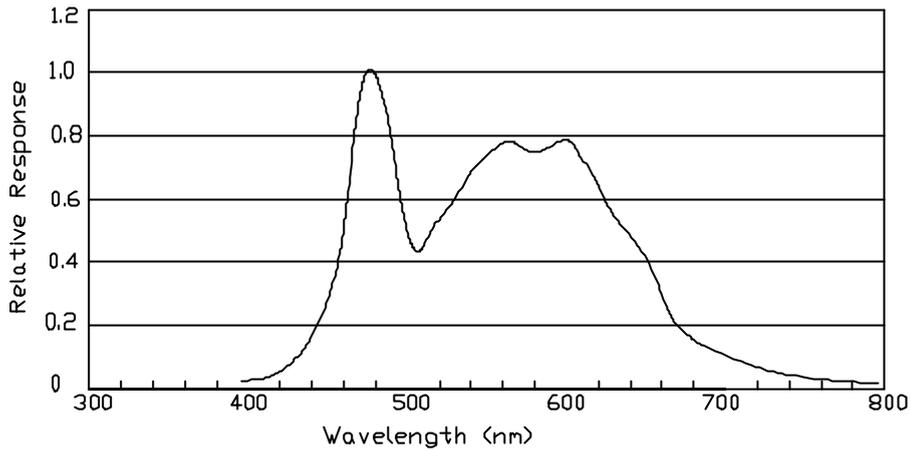
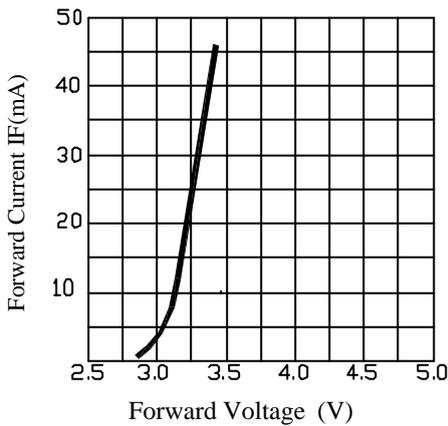
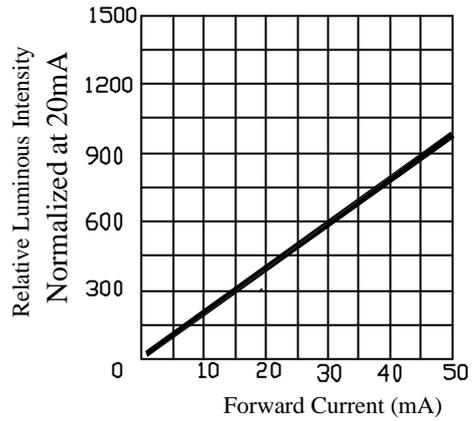


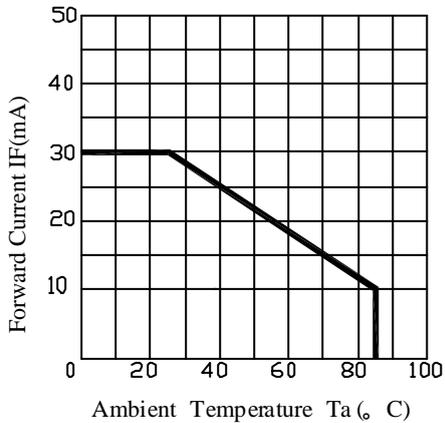
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



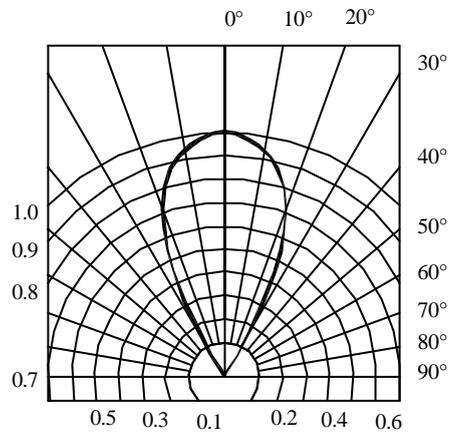
FORWARD CURRENT VS.APPLIED VOLTAGE



LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. WAVELENGTH



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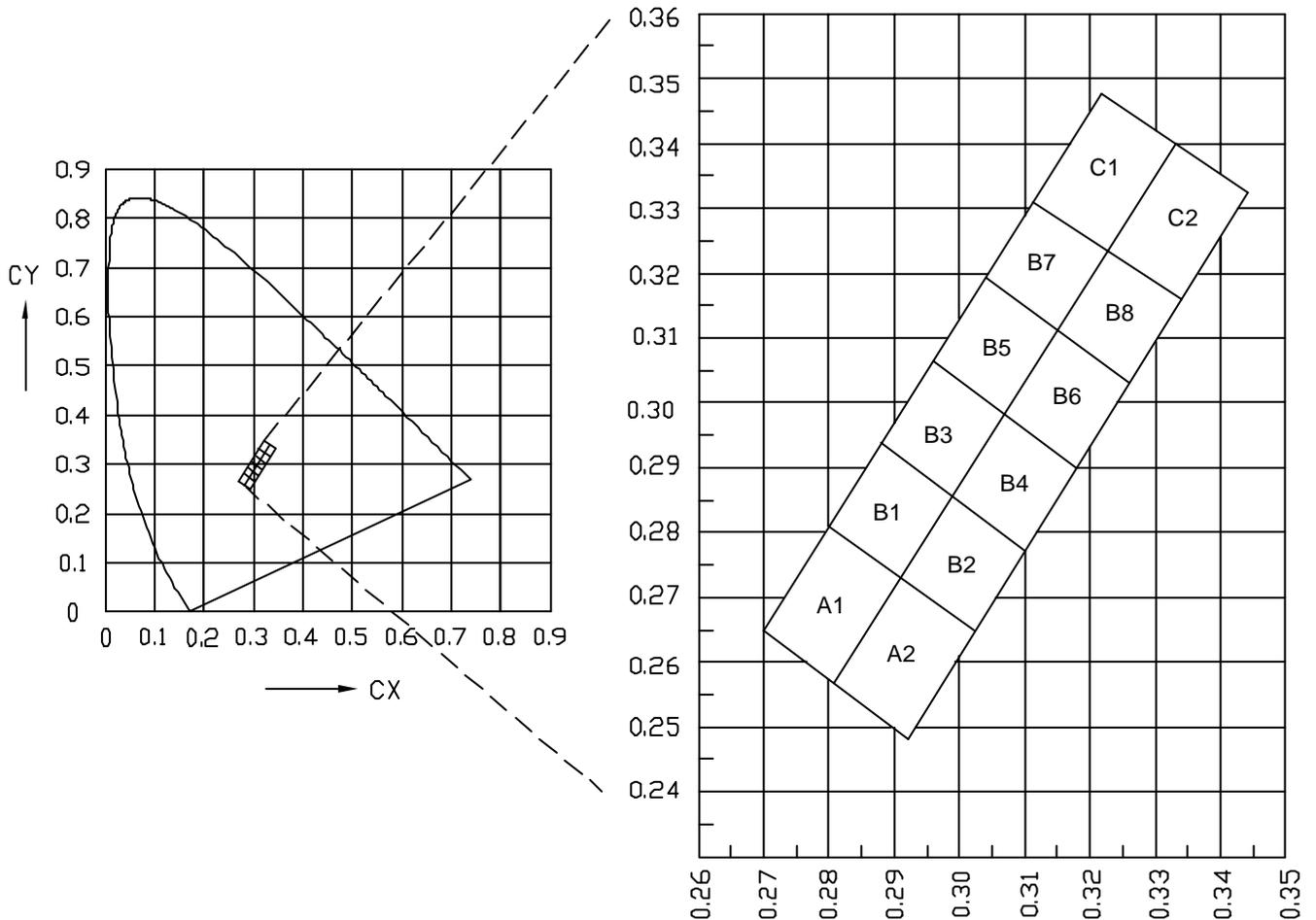
Chromaticity Coordinates Specifications for Bin Grading

COLOR RANKS(IF=20mA.Ta=25° C)

BiN	RANK					BiN	RANK				
A1	X	0.27	0.28	0.291	0.281	B5	X	0.296	0.304	0.315	0.307
	Y	0.265	0.282	0.273	0.256		Y	0.307	0.319	0.311	0.298
A2	X	0.281	0.291	0.302	0.292	B6	X	0.307	0.315	0.326	0.318
	Y	0.256	0.273	0.265	0.248		Y	0.298	0.311	0.303	0.29
B1	X	0.28	0.288	0.299	0.291	B7	X	0.304	0.312	0.323	0.315
	Y	0.282	0.294	0.286	0.273		Y	0.319	0.331	0.323	0.311
B2	X	0.291	0.299	0.31	0.302	B8	X	0.315	0.323	0.334	0.326
	Y	0.273	0.286	0.277	0.265		Y	0.311	0.323	0.315	0.303
B3	X	0.288	0.296	0.307	0.299	C1	X	0.312	0.322	0.333	0.323
	Y	0.294	0.307	0.298	0.286		Y	0.331	0.348	0.34	0.323
B4	X	0.299	0.307	0.318	0.31	C2	X	0.323	0.333	0.344	0.334
	Y	0.286	0.298	0.29	0.277		Y	0.323	0.34	0.332	0.315

Notes : X.Y Tolerance each Bin limit is ± 0.01

Chromaticity Coordinates & Bin grading diagram





HIGH POWER AUTOMATIVE LED
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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	-----



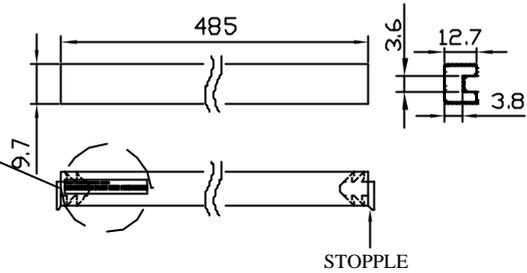
HIGH POWER AUTOMATIVE LED

PART NO. : LT8VW3-AH-UAC2

ENCASED TYPE

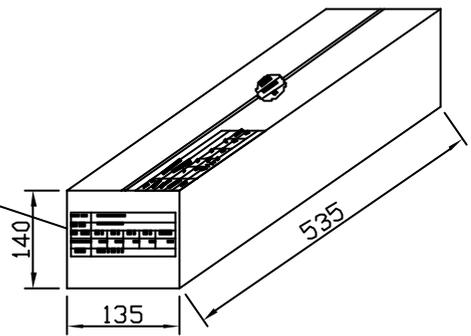
TUBE:
 QUANTITY: 60 PCS

PART NO :LTXXXX-XX
LOT :XXXXXXXX QTY'S :XXPCS BIN CODE:XX-XX



INNER BOX
 QUANTITY: 140 tubes
 TOTAL: 8,400 PCS

PART NO.	LXXXX-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: 33,600 PCS

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

