



SPECIFICATION FOR LED LAMP

PART NO. : LT33B3-81-URE1
10.0MM ROUND LED LAMP

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**10.0MM ROUND LED LAMP
PART NO. : LT33B3-81-URE1**

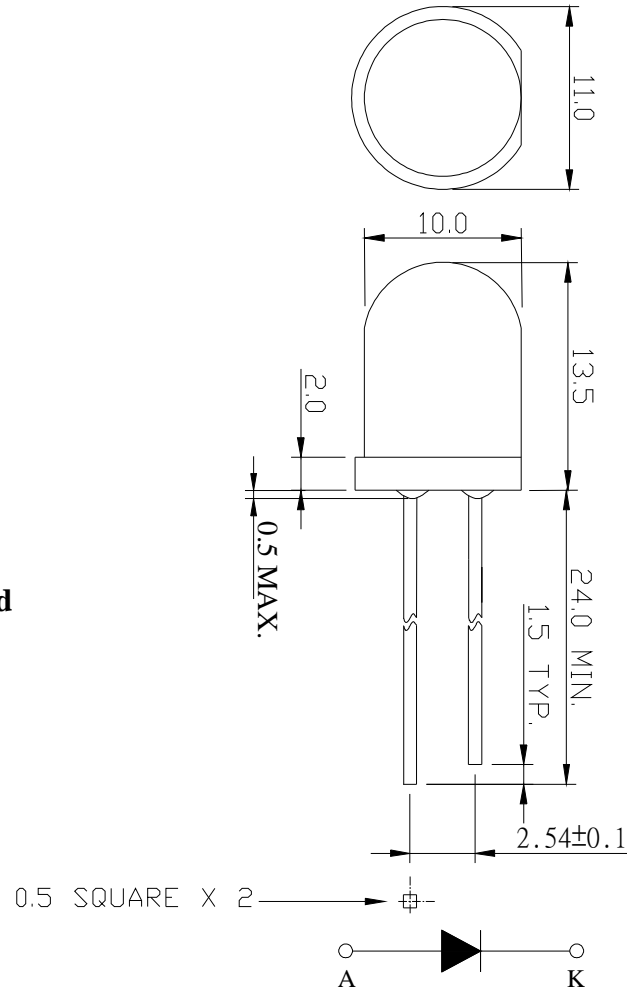
Features

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

Description

The Blue lamps are made with InGaN/Sapphire chips and Water clear epoxy resin.

Package Dimensions



Notes:

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

Part No.	Led Chip		Lens Color
	Material	Emitting Color	
LT33B3-81-URE1	InGaN/Sapphire	Blue	Water clear



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Absolute Maximum Ratings at Ta=25°C :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	120	mW
Reverse Voltage	Vr	5	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
Electrostatic discharge (ESD)		300	V

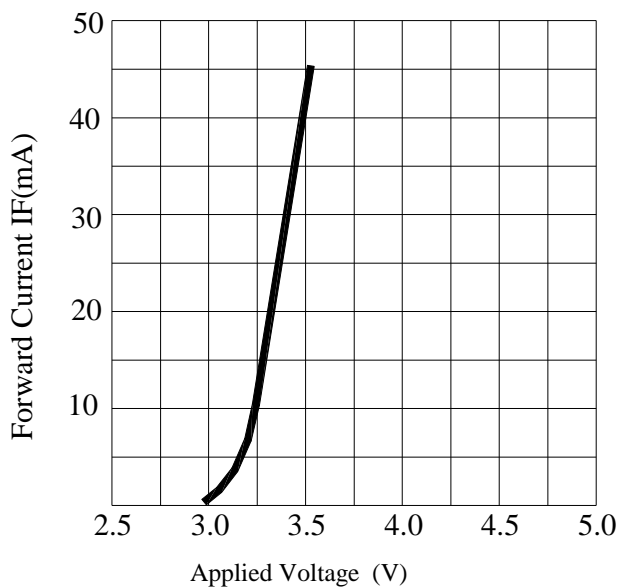
Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA	540	900		mcd
Forward Voltage	Vf	If=20mA		3.3	4.2	V
Peak Wavelength	λP	If=20mA		468		nm
Dominant Wavelength	λD	If=20mA		470		nm
Reverse Current	Ir	Vr=5V			100	μA
Viewing Angle	$2\theta 1/2$	If=20mA		22		deg
Spectrum Line Halfwidth	$\Delta \lambda$	If=20mA		26		nm

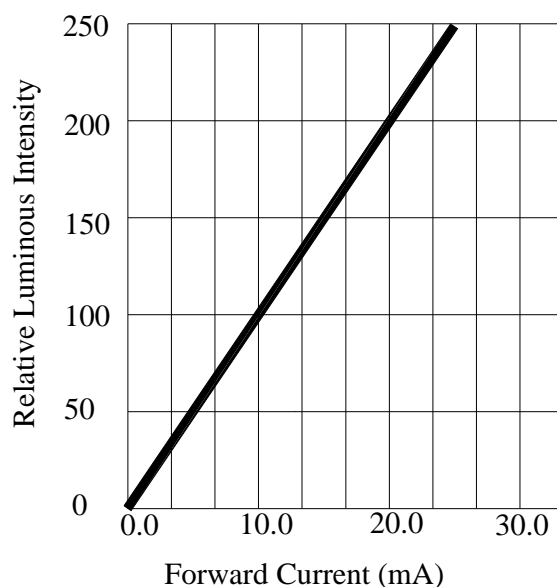


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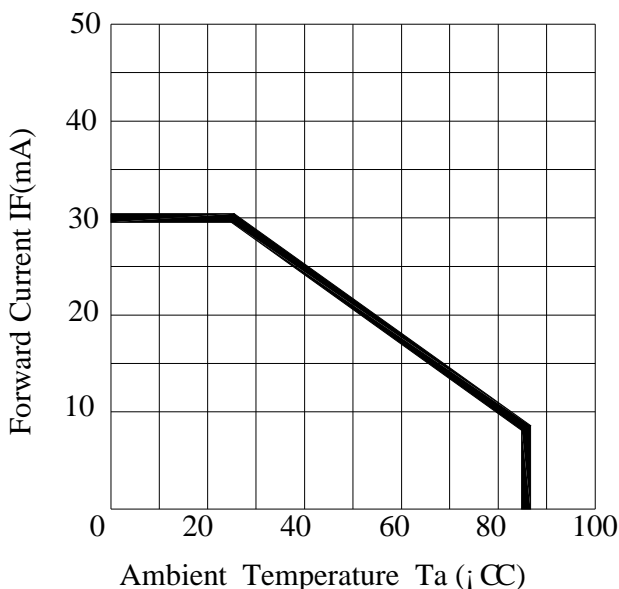
Typical Electrical / Optical Characteristics Curves :



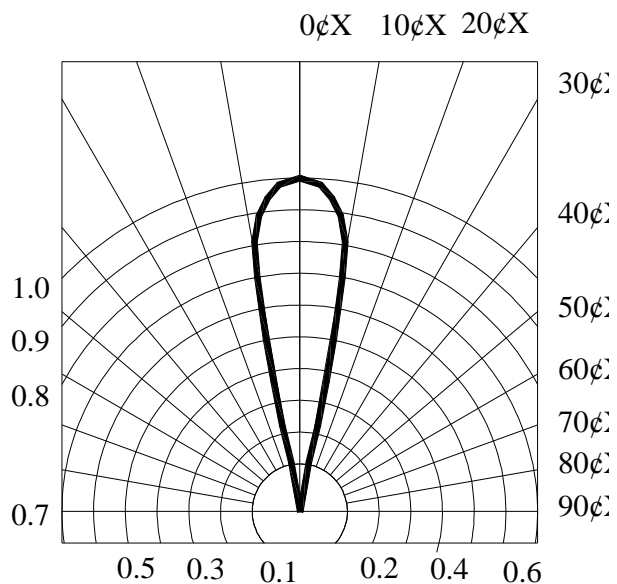
FORWARD CURRENT VS.APPLIED VOLTAGE



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℃	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℃J/30min~ -40℃J/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	-----	100 μA
Luminous Intensity	Iv	If=20mA	Initial Data x0.8	-----