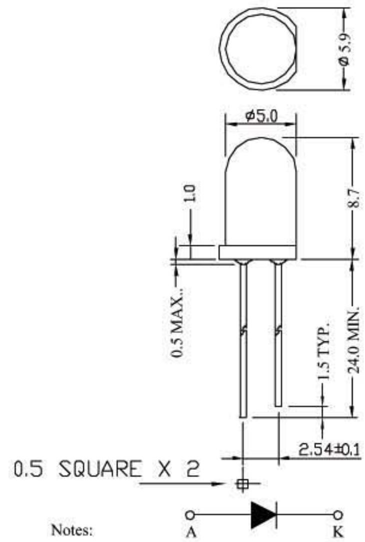
5mm Blue LED

P/N: L500BC

LED Chip		Lens Color
Material	Emitting Color	
InGaN/Sapphire	Blue	Water Clear

Package Dimensions



Notes:

1.All dimensions are in millimeters.

2.Tolerance is ±0.25mm unless otherwise noted.

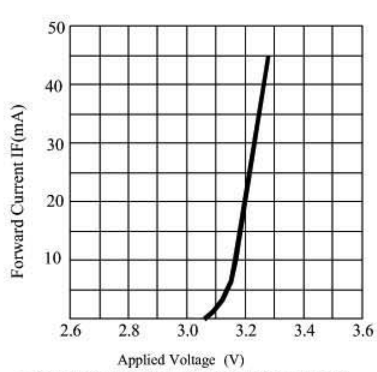
Absolute Maximum Ratings at Ta=25 ℃ :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	120	mW
Reverse Voltage	Vr	5	V
D.C. Forward Current	If	30	mA
Reverse (Leakage) Current	Ir	50	μA
Peak Current (1/10 Duty Cycle , 0.1 ms Pulse Width)	If(Peak)	100	mA
Operating Temperature Range	Topr	-25 to +85	℃
Storage Temperature Range	Tstg	-40 to +100	℃
Lead Soldering Temp.(1.6mm from body) for 5 seconds		260	℃
Electrostatic discharge (ESD)		2000	V

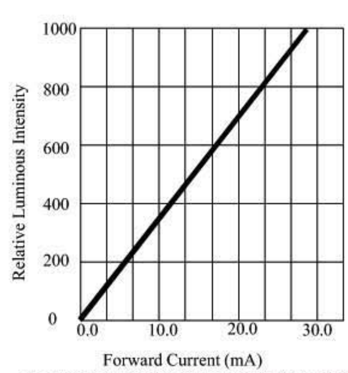
Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA	370	680		mcd
Forward Voltage	Vf	If=20mA		3.2	4.0	V
Peak Wavelength	λP	If=20mA		-----		nm
Dominant Wavelength	λD	If=20mA		465		nm
Reverse(Leakage)Current	Ir	Vr=5V			50	μA
Viewing Angle	2θ1/2	If=20mA		30		deg
Spectrum Line Halfwidth	Δλ	If=20mA		26		nm

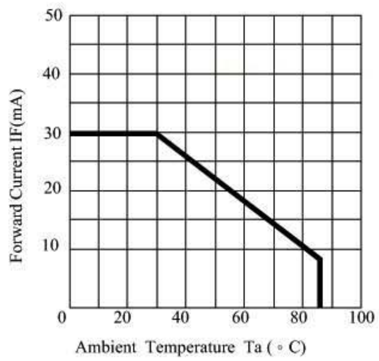
Typical Electrical / Optical Characteristics Curves :



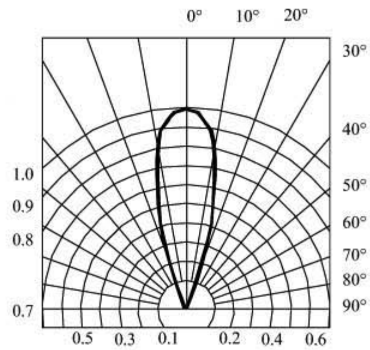
FORWARD CURRENT VS.APPLIED VOLTAGE



FORWARD CURRENT VS. LUMINOUS INTENSITY



AMBIENT TEMPERATURE VS. FORWARD CURRENT



RADIATION DIAGRAM

Reliability Test

NO.	Discription	Test Method	Test Condition
1	Operational life	1000 Hrs	IF=20mA, Ta=25 ℃
2	High Temp. Storage	1000 Hrs	100℃
3	Low Temp. Storage	1000 Hrs	-40℃
4	High Temp./High Humidity	1000 Hrs	60℃, 95%
5	Temperature Cycling	100 Cycles	-30 ℃(30min) → +25 ℃(5min) → +80 ℃(30min) → +25 ℃(5min)
6	Damp Heat Cyclic	40 Cycles Time of 1 cucle: 6 hrs	IF=20mA, Ta=25℃ -0℃±2(2H)→65℃±2 90-95%RH(3H) →-0℃±2(1H)
7	Soldering Heat	5 Sec.	260±5°C 1.6mm from bottom of case
8	Solderability	5±0.2 Sec. Wave soldering.	260±5°C Speed of immersing and lifting 25 ±2.5mm/sec
9	Drop	X.Y.Z Direction each 1 time	Maple plate, 75cm
10	Lead pull	10 Sec.	Weight 0.5Kg
11	Lead Bend	2 times	Weight 0.25Kg,Bending Angle=90 °

The result of the above Reliability test will be referred to the Electrical and Optical Characteristic in this Specification and Judgment will be made in accordance with the following criteria listed below.

Reliability Test Failure Judgment Criteria

Item	Criteria for Judgment
Foward Voltage	More than 120 % X upper limit of spec.
Reverse (Leakage) Current	More than 100 % X upper limit of spec.
Luminous Intensity	More than 50 % X Lower limit of spec.
Solderbility	Less than 95 %