LIGITEK

LIGITEK ELECTRONICS CO.,LTD.
Property of Ligitek Only

ROUND TYPE LED LAMPS

LSBK3330S

DATA SHEET

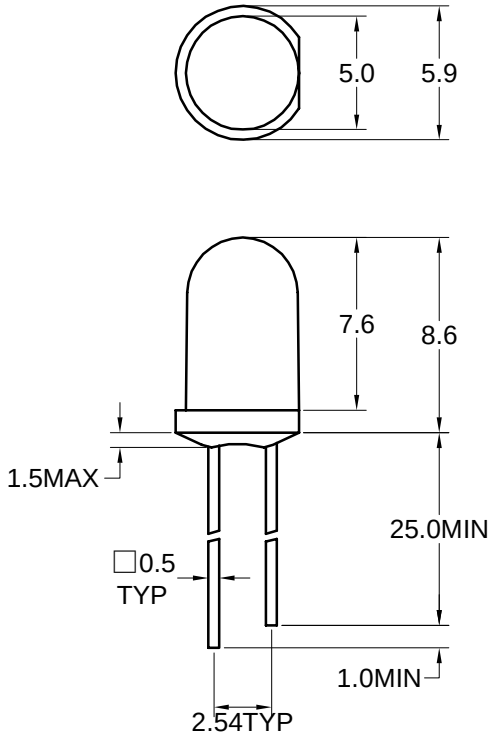
DOC. NO : QW0905-LSBK3330S

REV. : A

DATE : 07 - Dec - 2004

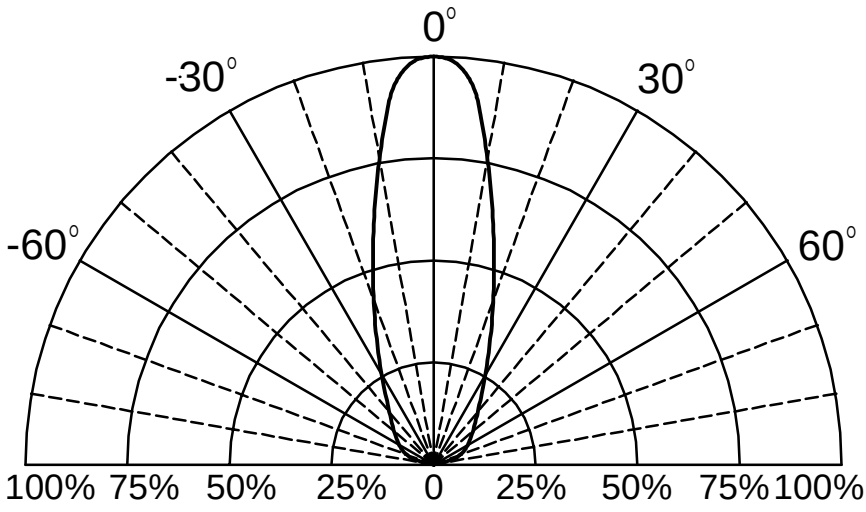
PART NO. LSBK3330S

Package Dimensions



Note : 1.All dimension are in millimeter tolerance is ±0.25mm unless otherwise noted.
2.Specifications are subject to change without notice.

Directivity Radiation



Absolute Maximum Ratings at Ta=25 ℃

Parameter	Symbol	Ratings	UNIT
		SBKS	
Forward Current	IF	30	mA
Peak Forward Current Duty 1/10@10KHz	IFP	100	mA
Power Dissipation	PD	120	mW
Reverse Current @5V	Ir	50	μA
Electrostatic Discharge	ESD	150	V
Operating Temperature	Topr	-20 ~ +80	℃
Storage Temperature	Tstg	-30 ~ +100	℃
Soldering Temperature	Tsol	Max 260℃ for 5 sec Max (2mm from body)	

Typical Electrical & Optical Characteristics (Ta=25 ℃)

PART NO	MATERIAL	COLOR		Dominant wave length λ Dnm	Spectral halfwidth △λ nm	Forward voltage @20mA(V)		Luminous intensity @20mA(mcd)		Viewing angle 2θ 1/2 (deg)
		Emitted	Lens			Typ.	Max.	Min.	Typ.	
LSBK3330S	InGaN/SiC	Blue	Blue Diffused	475	26	3.5	4.2	50	120	34

Note : 1.The forward voltage data did not including ±0.1V testing tolerance.
2. The luminous intensity data did not including ±15% testing tolerance.

Typical Electro-Optical Characteristics Curve

SBK CHIP

Fig.1 Forward current vs. Forward Voltage

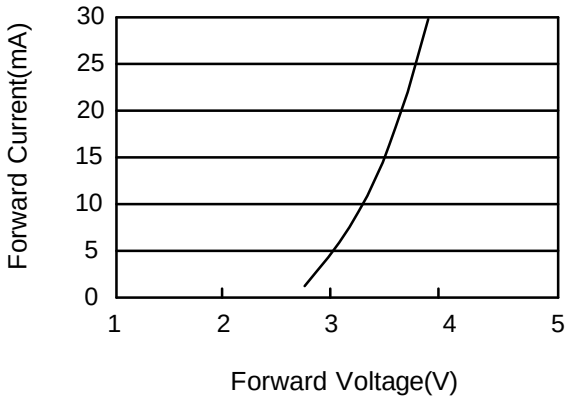


Fig.2 Relative Intensity vs. Forward Current

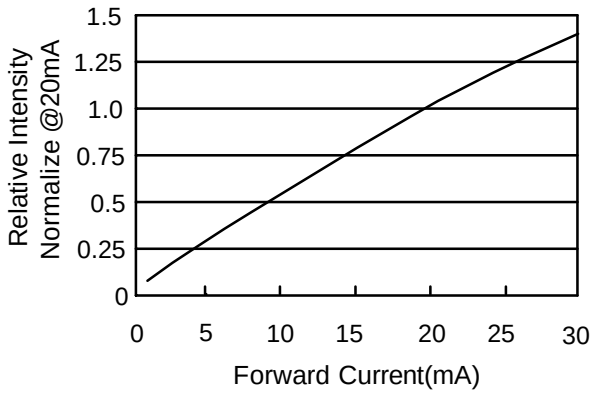


Fig.3 Forward Current vs. Temperature

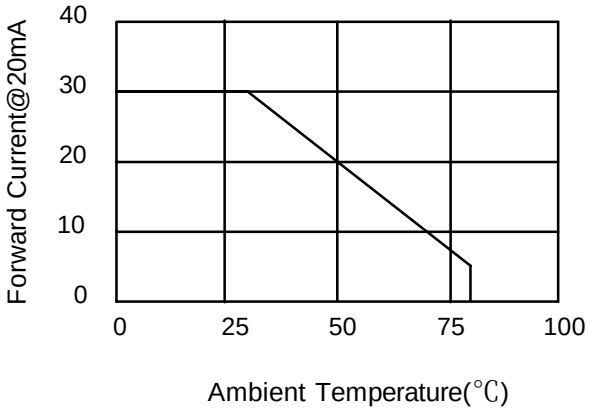
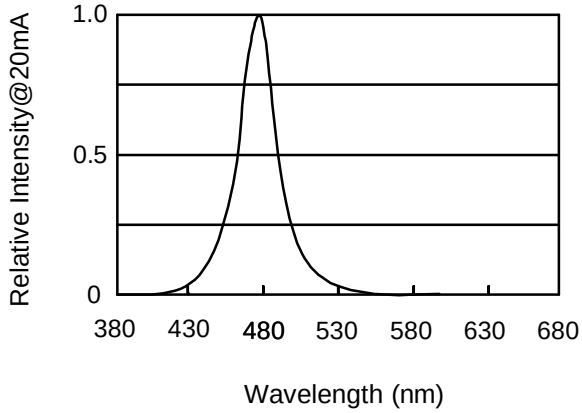


Fig.4 Relative Intensity vs. Wavelength



Reliability Test:

Test Item	Test Condition	Description	Reference Standard
Operating Life Test	1.Under Room Temperature 2.If=20mA 3.t=1000 hrs (-24hrs, +72hrs)	This test is conducted for the purpose of detemining the resisance of a part in electrical and themal stressed.	MIL-STD-750: 1026 MIL-STD-883: 1005 JIS C 7021: B-1
High Temperature Storage Test	1.Ta=105℃±5℃ 2.t=1000 hrs (-24hrs, +72hrs)	The purpose of this is the resistance of the device which is laid under ondition of hogh temperature for hours.	MIL-STD-883:1008 JIS C 7021: B-10
Low Temperature Storage Test	1.Ta=-40℃±5℃ 2.t=1000 hrs (-24hrs, +72hrs)	The purpose of this is the resistance of the device which is laid under condition of low temperature for hours.	JIS C 7021: B-12
High Temperature High Humidity Test	1.Ta=65℃±5℃ 2.RH=90％~95％ 3.t=240hrs ±2hrs	The purpose of this test is the resistance of the device under tropical for hous.	MIL-STD-202:103B JIS C 7021: B-11
Thermal Shock Test	1.Ta=105℃±5℃&-40℃±5℃ (10min) (10min) 2.total 10 cycles	The purpose of this is the resistance of the device to sudden extreme changes in high and low temperature.	MIL-STD-202: 107D MIL-STD-750: 1051 MIL-STD-883: 1011
Solder Resistance Test	1.T.Sol=260℃±5℃ 2.Dwell time= 10 ±1sec.	This test intended to determine the thermal characteristic resistance of the device to sudden exposures at extreme changes in temperature when soldering the lead wire.	MIL-STD-202: 210A MIL-STD-750: 2031 JIS C 7021: A-1
Solderability Test	1.T.Sol=230℃±5℃ 2.Dwell time=5 ±1sec	This test intended to see soldering well performed or not.	MIL-STD-202: 208D MIL-STD-750: 2026 MIL-STD-883: 2003 JIS C 7021: A-2