



LIGITEK ELECTRONICS CO.,LTD.
Property of Ligitek Only

SUPER BRIGHT ROUND TYPE LED LAMPS



Lead-Free Parts

L8UG3333/S46/A-PF

DATA SHEET

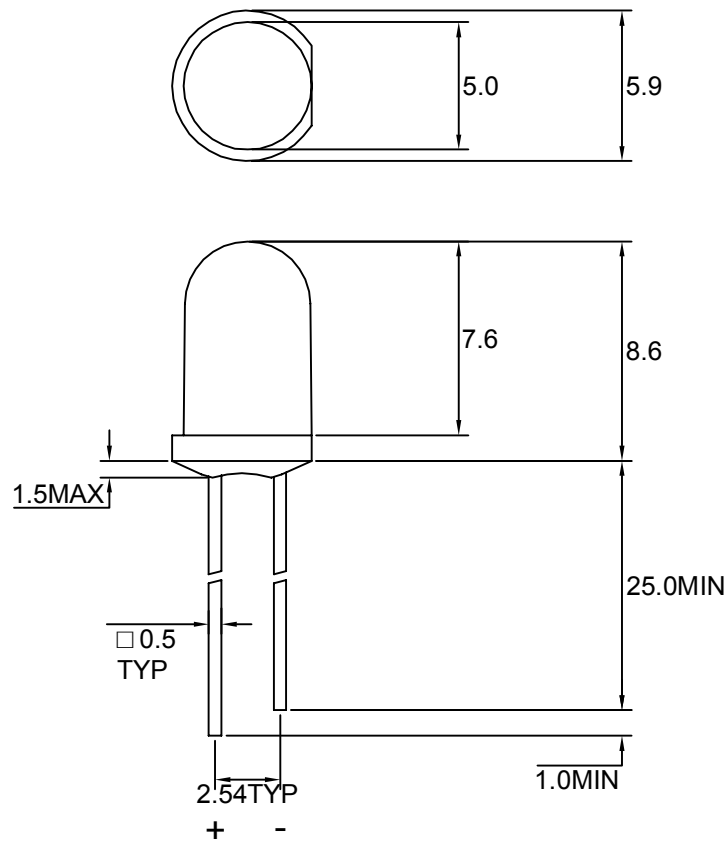
DOC. NO : QW0905-L8UG3333/S46/A-PF

REV. : A

DATE : 26 - Dec. - 2018

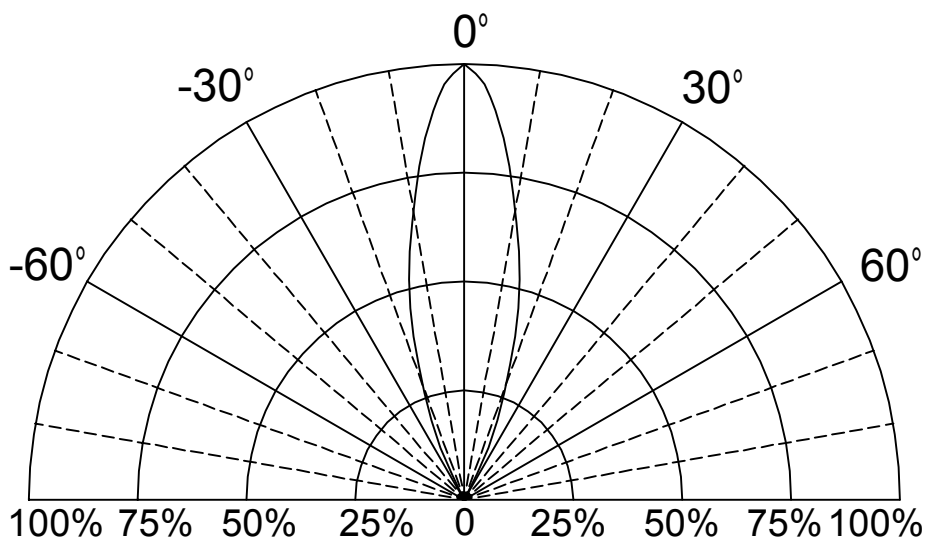


Package Dimensions



Note : 1.All dimension are in millimeter tolerance is $\pm 0.25\text{mm}$ unless otherwise noted.
2.Specifications are subject to change without notice.

Directivity Radiation



Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Ratings	UNIT
		8UG	
Forward Current	IF	25	mA
Peak Forward Current Duty 1/10@10KHz	IFP	75	mA
Power Dissipation	PD	65	mW
Reverse Current @5V	Ir	10	μA
Electrostatic Discharge(*)	ESD	2000	V
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C

* Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrostatic glove is recommended when handling these LED. All devices, equipment and machinery must be properly grounded.

Typical Electrical & Optical Characteristics (Ta=25 °C)

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			Min.	Max.	Min.	Typ.	
L8UG3333/S46/A-PF	AlGaInP	Green	Green Diffused	574	20	1.7	2.6	220	450	30

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

8UG CHIP

Fig.1 Forward current vs. Forward Voltage

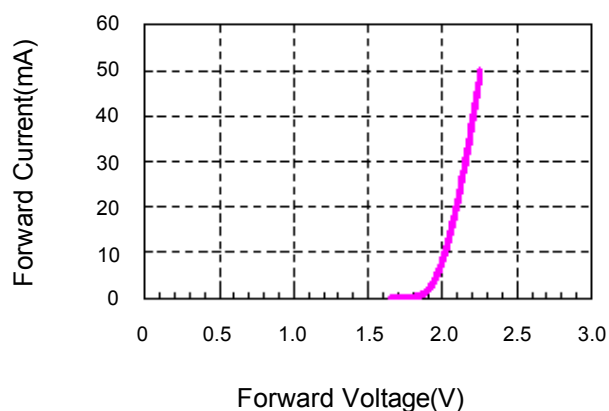


Fig.2 Relative Intensity vs. Forward Current

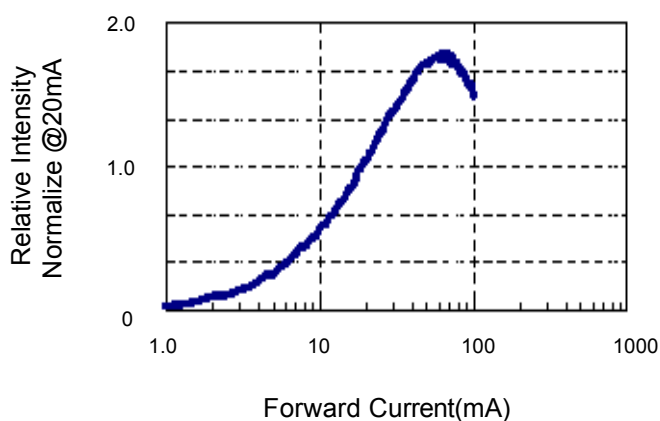


Fig.3 Forward Voltage vs. Temperature

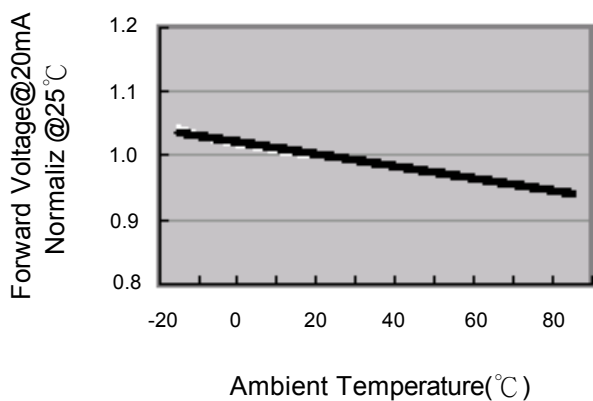


Fig.4 Relative Intensity vs. Temperature

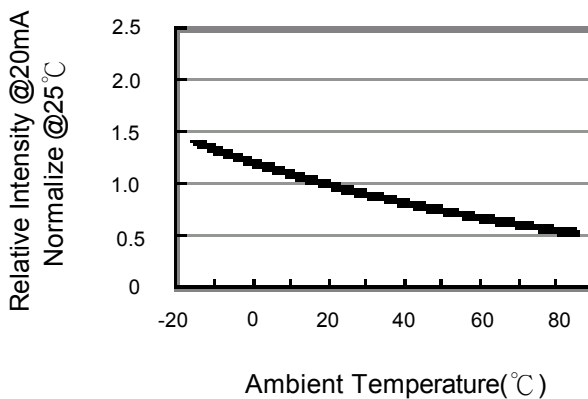
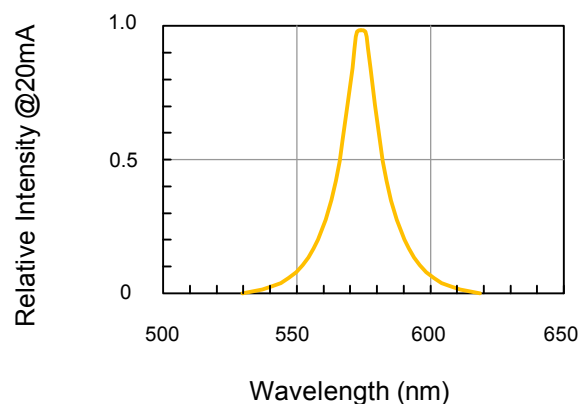


Fig.5 Relative Intensity vs. Wavelength



Reliability Test:

Test Item	Test Condition	Description	Reference Standard
Operating Life Test	1.Under Room Temperature 2.If=20 mA 3.t=1000 hrs (-24hrs, +72hrs)	This test is conducted for the purpose of determining the resistance of a part in electrical and thermal stressed.	MIL-S TD-750: 1026 MIL-S TD-883: 1005 J IS 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 condition of high temperature for hours.	MIL-STD-883:1008 J IS 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.	J IS C 7021: B-12
High Temperature High Humidity Test	1.T a=65 ±5 2.R H=90 %~95 % 3. t=240hrs ±2hrs	The purpose of this test is the resistance of the device under tropical for hours.	MIL -STD-202:103B J IS C 7021: B-11
Thermal Shock Test	1 .Ta=105 ±5 & -40 ±5 (10min) (10min) 2.to tal 10 cycles	The purpose of this is the resistance of the device to sudden extreme changes in high and low temperature.	MIL-S TD-202: 107D MIL-S TD-750: 1051 MIL-S TD-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-S TD-202: 210A MIL-S TD-750: 2031 J IS 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-S TD-750: 2026 MIL-S TD-883: 2003 J IS C 7021: A-2