

Part:	HL-1008U57GD
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ATTENTION
 OBSERVE PRECAUTIONS
 FOR HANDLING
 ELECTROSTATIC
 DISCHARGE
 SENSITIVE
 DEVICES



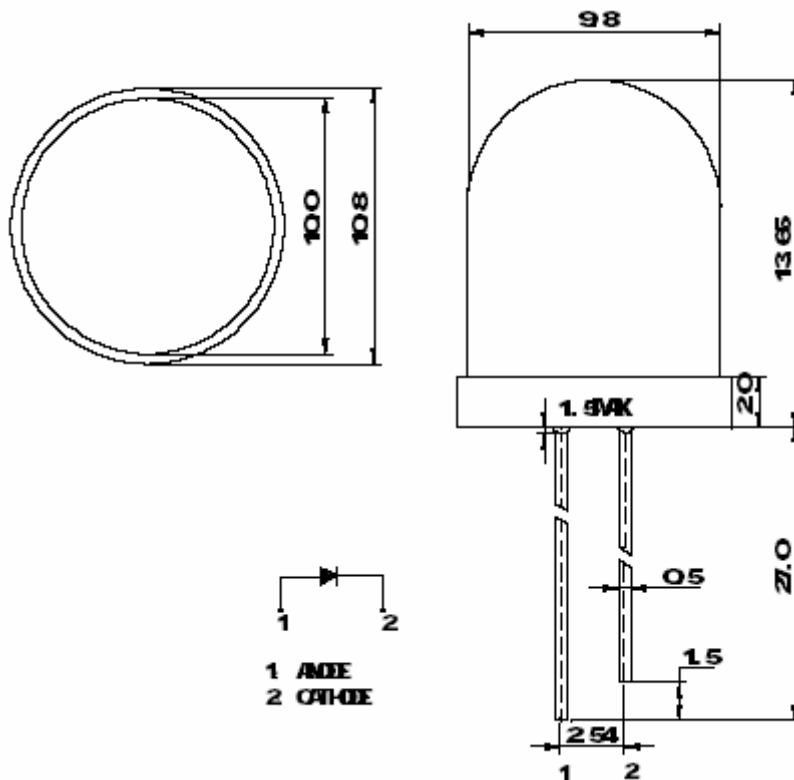
Features:

- $\phi 10$ LAMP LED
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE: 200PCS / BAG.

Description:

This devices are made with TS InGaN.

Package Dimensions:



Tolerance Grade	Dimension Tolerance (UNIT:mm)			
	0.5~3	3~6	6~30	30~120
Medium(m)	±0.1	±0.1	±0.2	±0.3
Chip		Lens Color		
Material	Emitting Color	Color Diffused		
InGaN	Green			

■Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	IF	20	mA
Peak Forward Current*	IFP	100	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	80	mW
Electrostatic discharge	ESD	2000	V
Operation Temperature	Topr	-30~+80	°C
Storage Temperature	Tstg	-30~+80	°C
Lead Soldering Temperature*	Tsol	Max. 260°C for 5sec Max.	

* IFP Conditions: Pulse Width≤10msec

* Tsol Conditions: 3mm from the base of the epoxy bulb

■Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF=20mA	2.8	3.2	3.6	V
50% Power Angle	2θ 1/2		--	60	--	deg
Luminous Intensity	Iv		1460	1500	1610	mcd
Prpc Wavelength	λD		515	--	525	nm
Recommend Forward Current	IF(rec)	--	--	--	20	mA
Reverse Current	IR	Vr=5V	--	--	10	uA

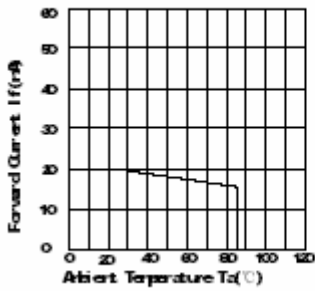
Notes:

1. Absolute maximum ratings Ta=25°C.
2. Tolerance of measurement of forward voltage±0.1V.
3. Tolerance of measurement of peak Wavelength±2.0nm.
4. Tolerance of measurement of luminous intensity±15%.
5. Tolerance of measurement of angle intensity±15%.

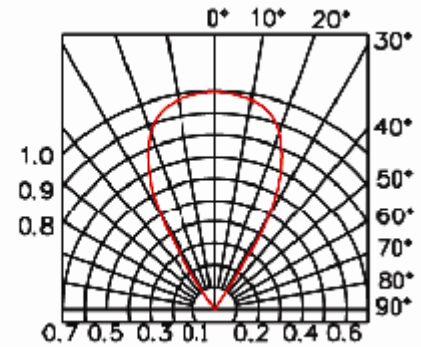
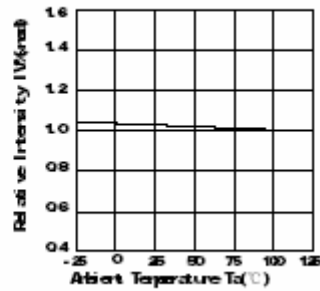
■Reliability Performance Test Items And Result

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Room Temperature DC Operating Life Test	Ta=25°C ±5°C, IF=20mA	1000 hrs	22 pcs	0/1
Environment Test	Thermal Shock Test	100°C ±5°C 5min ↑↓ -40°C ±5°C 5min.	100 cycles	22 pcs	0/1
	Temperature Cycle Test	100°C ±5°C 30min ↑↓5min -40°C ±5°C 30min.	100 cycles	22 pcs	0/1
	Temperature & Cycle Test	85°C ±5°C /85% RH IF=5mA	1000 hrs	22 pcs	0/1
	Temperature Cycle Test	Ta=100°C ±5°C	1000 hrs	22 pcs	0/1
	Low Temperature Storage	Ta=100°C ±5°C	1000 hrs	22 pcs	0/1
Mechanical Test	Resistance to Soldering Heat	Ta=100°C ±5°C	1times	22 pcs	0/1
	Lead Integrity	Load 2.5N(0.25kgf) 0° ~ 90° ~ 0°	3times	22 pcs	0/1

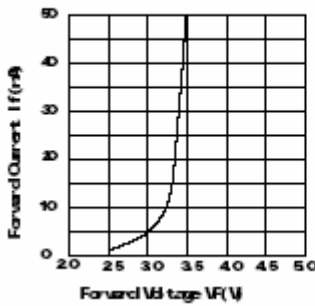
Forward Current vs. Ambient Temperature



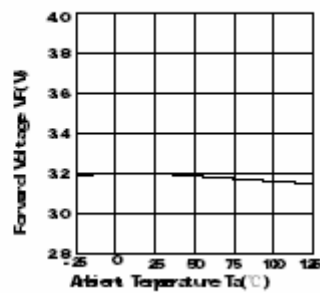
Relative Intensity vs. Ambient Temperature



Forward Current vs. Forward Voltage

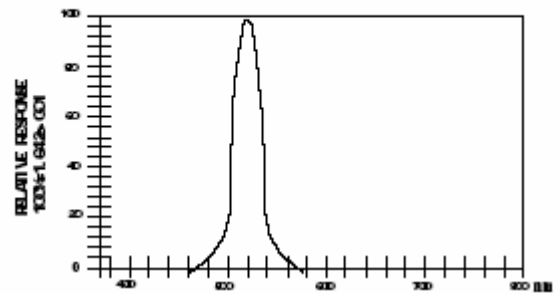


Forward Voltage vs. Ambient Temperature



Luminous Spectrum (Ta=25°C)

SPECTRAL RADIANCE



Soldering:

1. Manual Of Soldering

The temperature of the iron tip should not be higher than 260°C (500°F) and Soldering within 3 seconds per solder-land is to be observed.

2. DIP soldering (Wave Soldering):

Preheating: 120°C ~150°C, within 120~180 sec.

Operation heating: 245°C ±5°C within 5 sec. 260°C (Max)

Gradual Cooling (Avoid quenching).

