

APPROVAL SHEET

Company Name _____

Full Sun Part Number **L3-G0030-4500** _____

Quantity _____

Shipment Date _____

Approved by Supplier _____

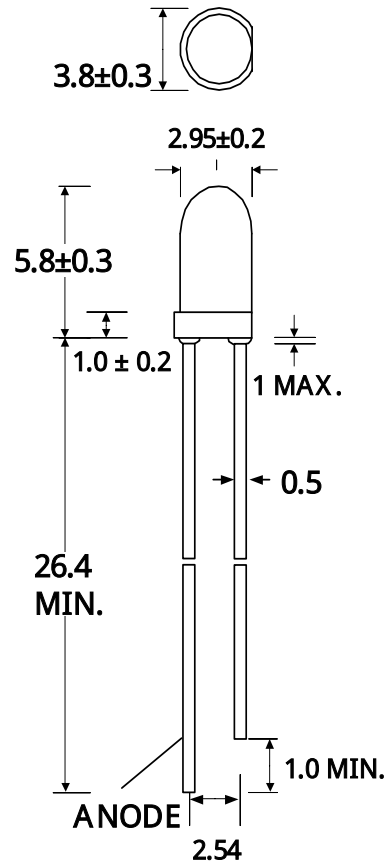
Approved by Customer _____

DISCRIPTION

- Super bright LED Lamp
- Round type
- 3mm diameter
- Lens color: Water Clear
- With Flange
- Solder leads without stand-off
- Package: bulk

FEATURES

- Emitted color: Super Green
- High Luminous intensity
- Technology: InGaN
- Peak wavelength $\lambda_p = 502\text{nm}$
- Viewing angle: 30°
- UV resistant epoxy



Notes:

1. All dimensions are in millimeter.
2. Lead spacing is measured where the lead emerge from the package.

SELECTION GUIDE

Chip Material	Chip Emitted	Lens Color	Viewing Angle
InGaN	Super Green	Water Clear	30°

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	MAX. RATING	Unit
Power Dissipation	P_D	120	mW
Peak Forward Current (1/10 Duty Cycle @1KHz)	I_{PF}	100	mA
Continuous Forward Current	I_{AF}	30	mA
Reverse Voltage	V_R	5.0	V
Operating Temperature Range	T_{OPR}	-20~+70	°C
Storage Temperature Range	T_{STG}	-40~+85	°C

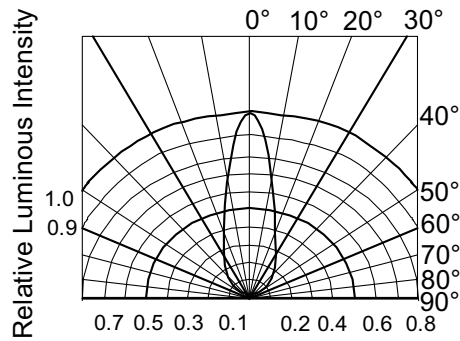
Solder temperature 1.6 mm from body for 3 seconds at 260°C

OPTICAL-ELECTRICAL CHARACTERISTICS

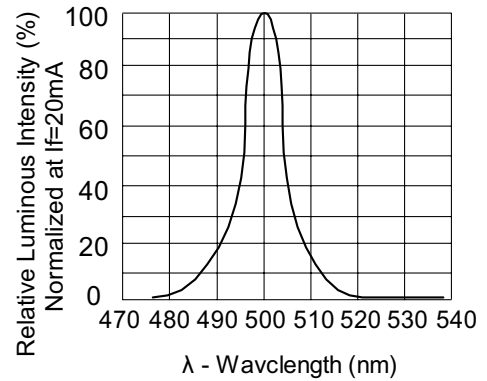
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Luminous Intensity	I_V	$I_F = 20\text{mA}$	2800	4500		mcd
Forward Voltage	V_F	$I_F = 20\text{mA}$		3.2	3.6	V
Reverse Current	I_R	$V_R = 5\text{V}$			10	uA
Viewing Angle	2θ1/2	$I_F = 20\text{mA}$		30		deg.
Peak Wavelength	λ_P	$I_F = 20\text{mA}$		502		nm
Dominant Wavelength	λ_D	$I_F = 20\text{mA}$	495	500	505	nm
Spectrum Radiation Bandwidth	$\Delta \lambda$	$I_F = 20\text{mA}$		30		nm

*Tolerance of Viewing Angle: -10 / +5 deg.

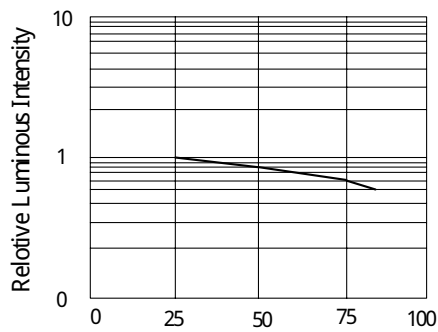
TYPICAL OPTICAL-ELECTRICAL CHARACTERISTIC CURVES



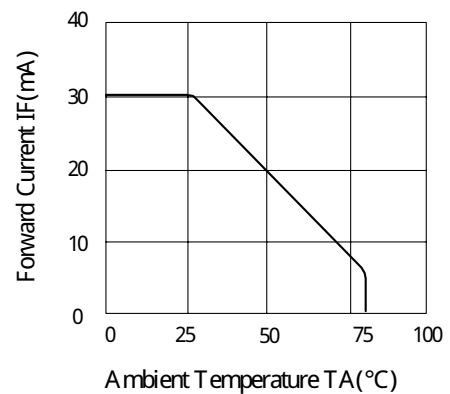
RADIATION DIAGRAM



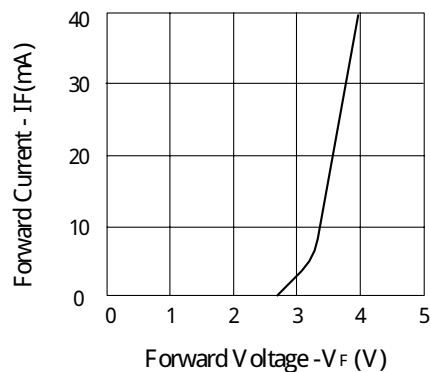
**RELATIVE LUMINOUS INTENSITY
Vs. WAVELENGTH**



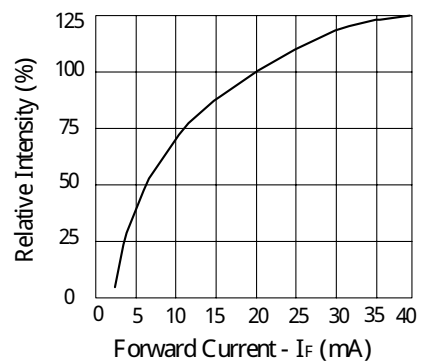
**LUMINOUS INTENSITY
Vs. AMBIENT TEMPERATURE**



**FORWARD CURRENT
Vs. AMBIENT TEMPERATURE**



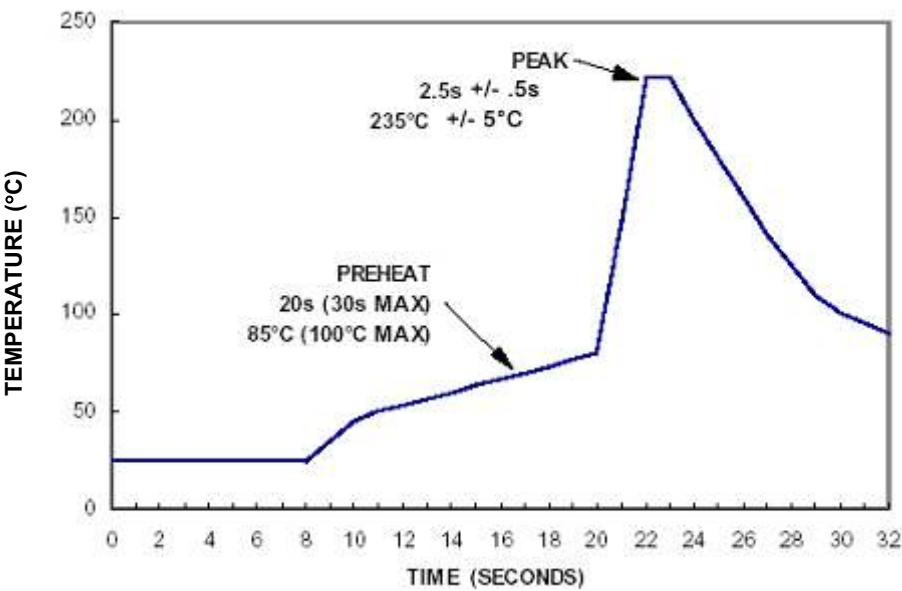
**FORWARD CURRENT
Vs. FORWARD VOLTAGE**



**LUMINOUS INTENSITY
Vs. FORWARD CURRENT**

■ Recommended Soldering Conditions

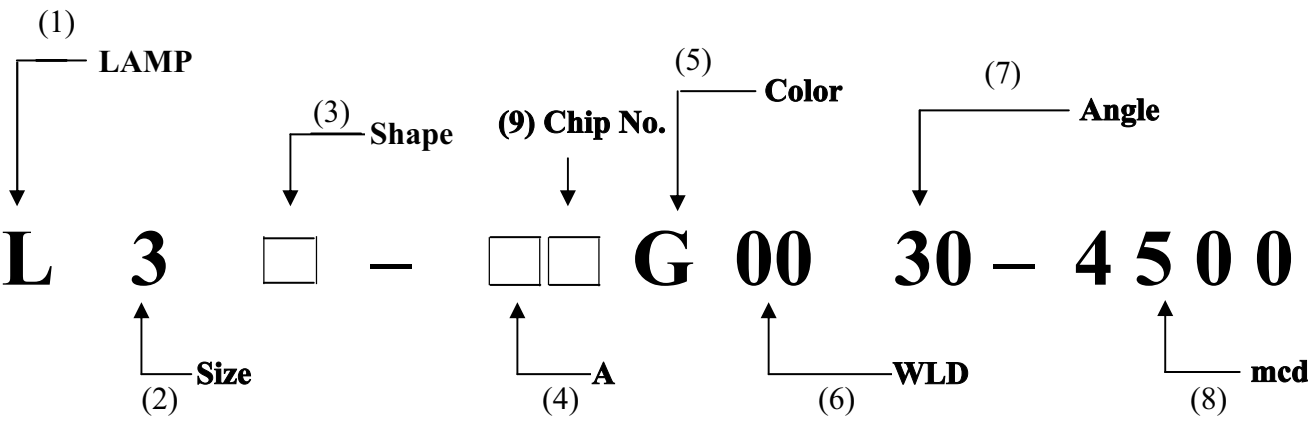
The recommended soldering conditions and maximum conditions are shown in Figure 1. listed in Table 1. A sample solder profile taken on the LED lead on the bottom-side of the PCB is shown in Figure 1. Both the recommended



Preheat Temperature	85 +/- 15°C
Preheat Time*	20 sec (Max 30 sec)
Peak Profile Temperatures	235 +/- 5°C
Soak Time above 200°C	2.5s +/- .5s

*Note: All top preheat stages are to be turned off so that the lamp body is not directly exposed to the heat source.

Item number code rule



Specification table

VF (v)	λ D(nm)	IV(mcd)
2.9-3.0	496-499 499-502 502-505	2800~3900
3.0-3.1		3900~5500
3.1-3.2		5500~7600
3.2-3.3		7600~10500
3.3-3.4		