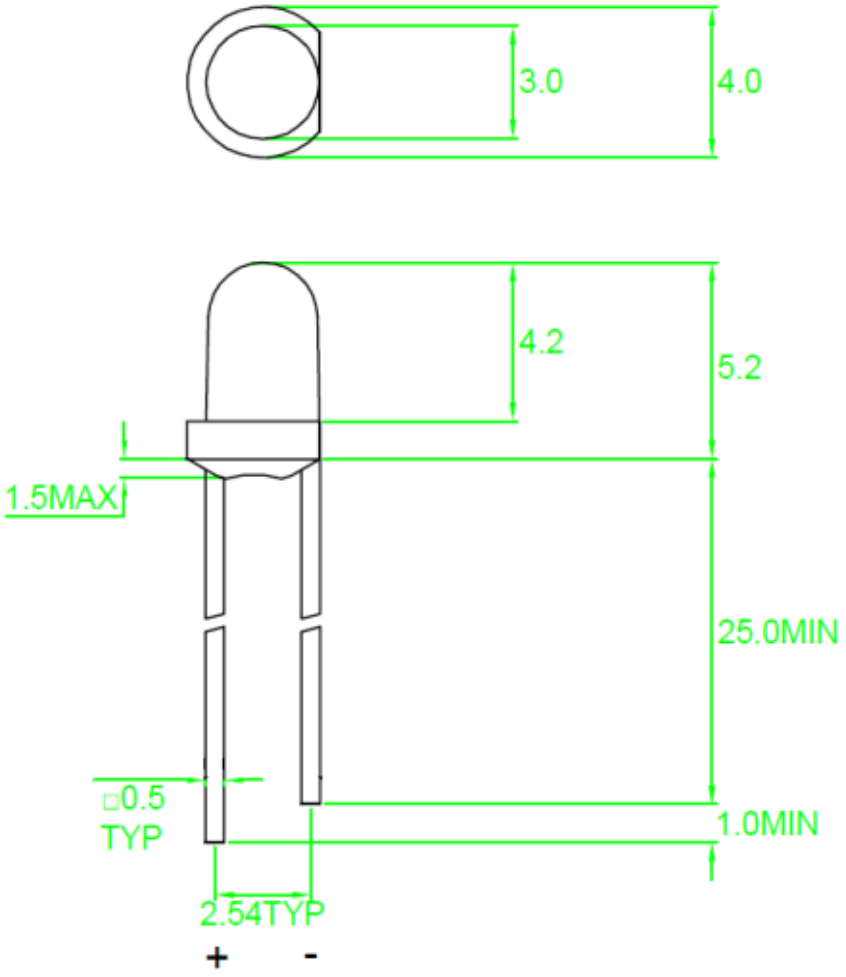
American Opto Plus LED Corp.
L314L-YGD-36D
3mm Yellow-Green LED Lamp

PACKAGE OUTLINES



Note: All dimensions are in millimeter, tolerance is ±0.25mm.

ITEM	MATERIALS
Lens color	Green Diffused
Dice	AlGaInP
Emitted Color	Yellow-Green

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	I_F	25	mA
Peak Forward Current (Duty 1/10@10kHz)	I_{FP}	75	mA
Power Dissipation	P_D	65	mW
Reverse Current @5V	I_R	10	μA
Electrostatic Discharge*	ESD	2000	V
Operating Temperature	T_{OPR}	-40 ~ +85	°C
Storage Temperature	T_{STG}	-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 handing these LED. All devices, equipment and machinery must be properly grounded.

OPTICAL-ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Dominant Wavelength	λ_P	--	--	574	--	nm
Spectral Half-Width	Δλ	--	--	20	--	nm
Forward Voltage	VF	I_F=20mA	1.7	2.6	--	V
Luminous Intensity	Iv	I_F=20mA	65	120	--	mcd
Viewing Angle	2Θ1/2	--	--	36	--	deg

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

TYPICAL OPTICAL-ELECTRICAL CHARACTERISTICS CURVES

Fig.1 Forward current vs. Forward Voltage

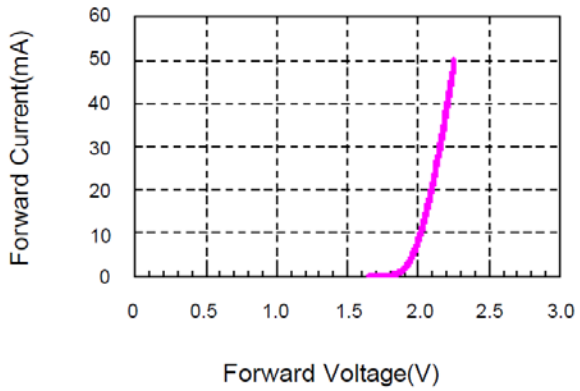


Fig.2 Relative Intensity vs. Forward Current

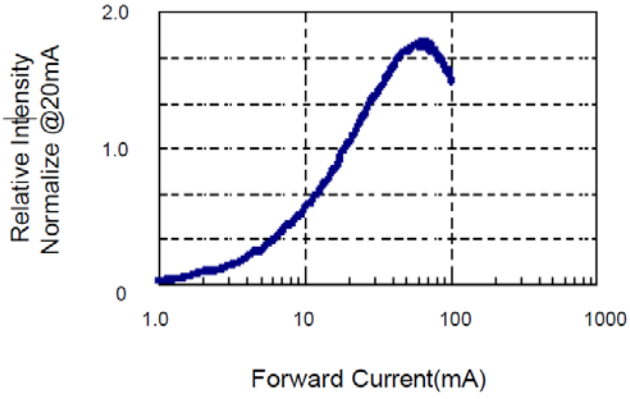


Fig.3 Forward Voltage vs. Temperature

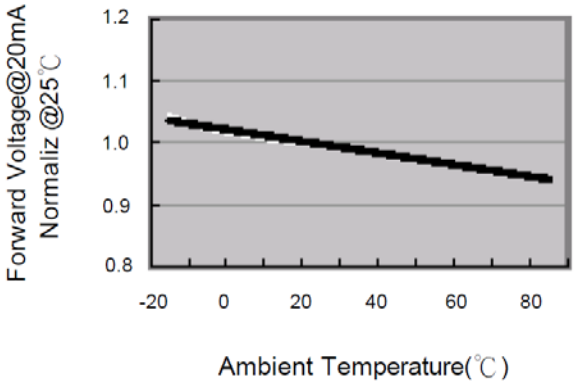


Fig.4 Relative Intensity vs. Temperature

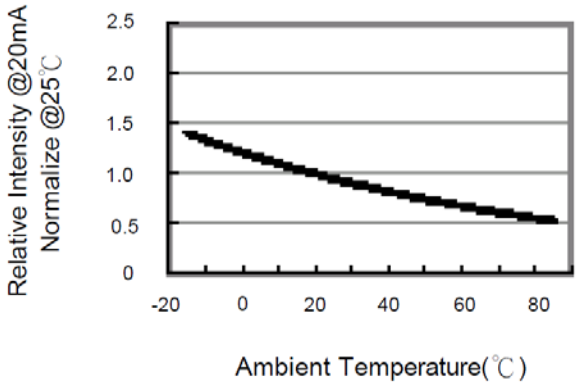


Fig.5 Relative Intensity vs. Wavelength

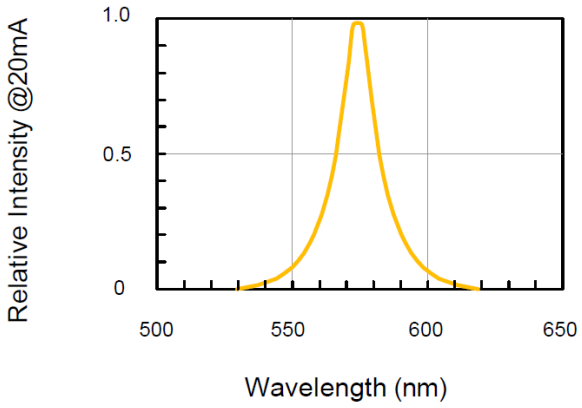
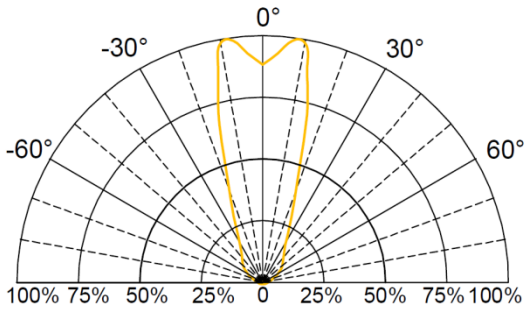


Fig.6 Directivity Radiation



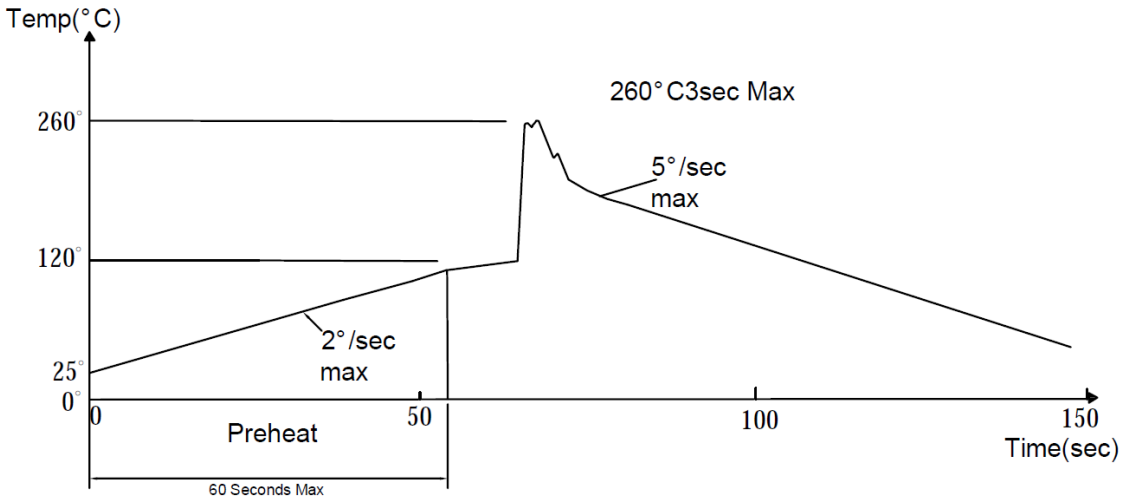
SOLDERING CONDITION (Pb-Free)

1. Iron:

Soldering Iron: 30W Max
Temperature 350°C Max
Soldering Time: 3 Seconds Max (One Time only)
Distance: 2mm Min (From solder joint to body)

2. Wave Soldering Profile

Dip Soldering
Preheat: 120°C Max
Preheat time: 60 seconds Max
Ramp-up
2°C/sec (Max)
Ramp-Down: -5°C/sec (Max)
Solder Bath: 260°C Max
Dipping Time: 3 seconds Max
Distance: 2mm Min (from solder joint to body)



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 high 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