

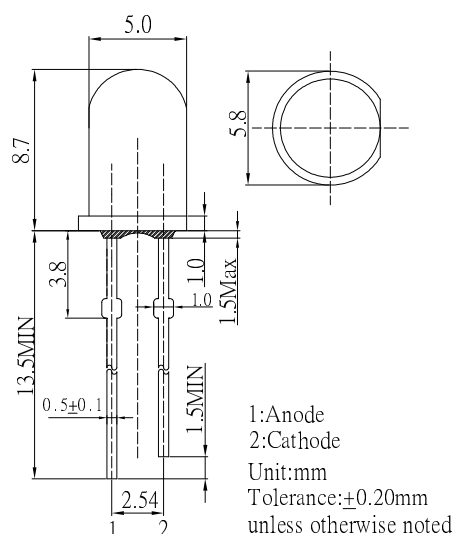
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- UV Resistant Epoxy
- Fewer Color Diffused Type

■ Applications

- Electronic Signs And Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

■ Outline Dimension

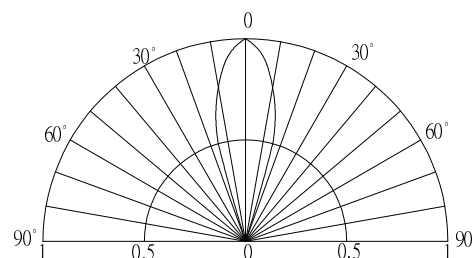


■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	50	mA
Pulse Forward Current#	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	130	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260 °C / 5sec	-

■ Directivity



#Pulse width Max.10ms Duty ratio max 1/10

■ Electrical -Optical Characteristics

(Ta=25°C)

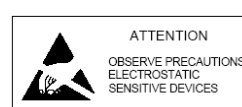
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage*	V _F	I _F =20mA	1.8	2.1	2.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Domi. Wavelength*	λ _D	I _F =20mA	600	605	610	nm
Luminous Intensity*	I _v	I _F =20mA	6600	8000	-	mcd
50% Power Angle	2θ _{1/2}	I _F =20mA	-	30	-	deg

*1 Tolerance of measurements of dominant wavelength is ±1nm

*2 Tolerance of measurements of luminous intensity is ±15%

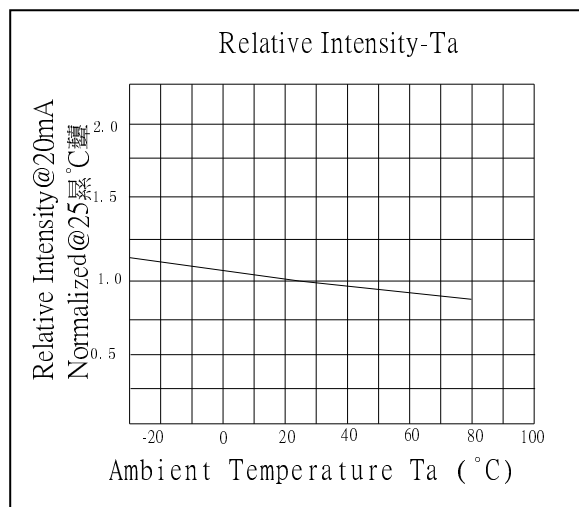
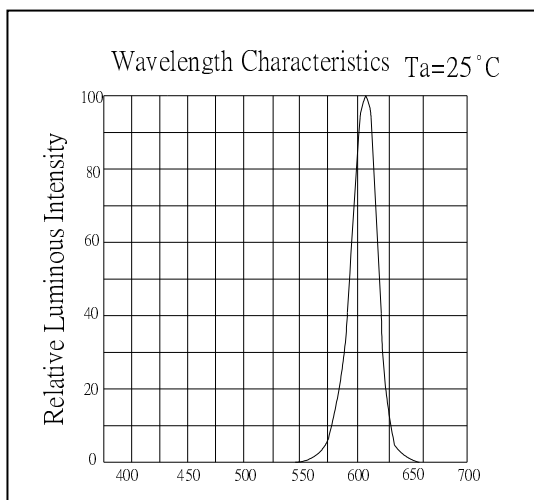
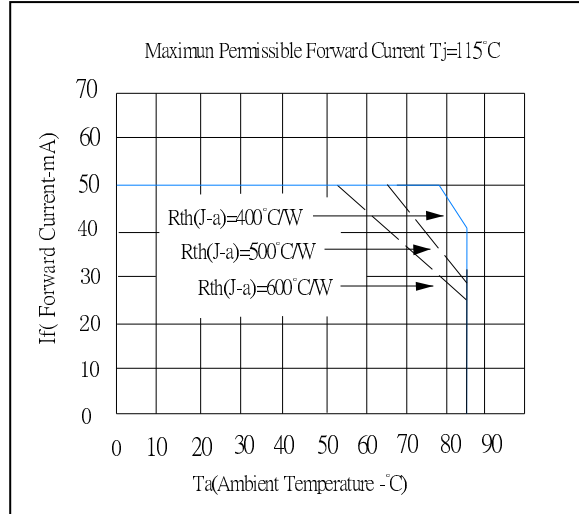
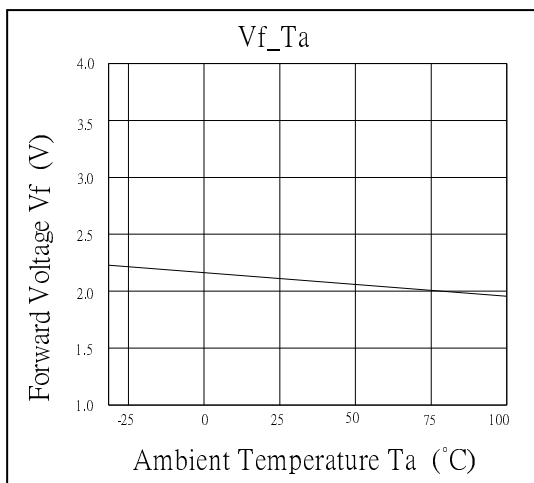
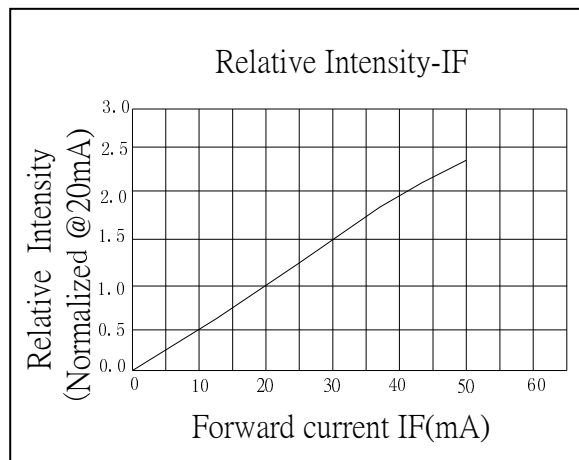
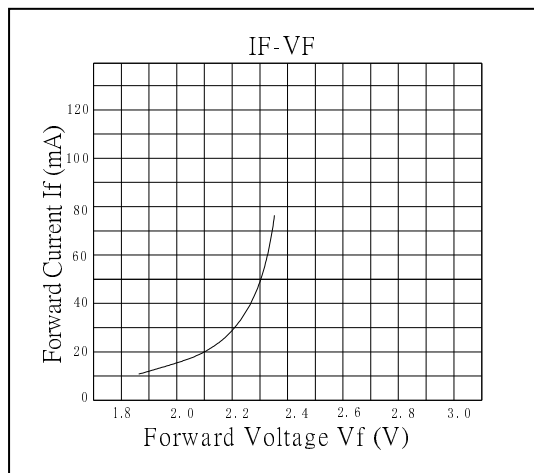
*3 Tolerance of measurements of forward voltage is ±0.1V

LED & Application Technologies



AlGaInP LED

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES



RELIABILITY TEST REPORT

CLASSIFICATION	TEST ITEM	TEST CONDITION
ENDURANCE TEST	ROOM TEMPERATURE OPERATION LIFE	If: 20mA Ta: 25±5 °C TEST TIME=1000HRS
	HIGH TEMPERATURE HIGH HUMIDITY STORAGE	R.H: 90~95% Ta: 65±5°C TEST TIME=240HRS(+2HRS)
	HIGH TEMPERATURE STORAGE	Ta: 100°C TEST TIME=500HRS(-24HRS,+48HRS)
	LOW TEMPERATURE STORAGE	Ta: -40°C TEST TIME=500HRS(-24HRS,+48HRS)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	-40°C ~ 25°C ~ 100°C ~ 25°C 30min 5min 30min 5min 20cycles
	RESISTANCE TO SOLDERING HEAT	Ta: 260±5°C TEST TIME=10±1sec
	SOLDERABILITY	Ta: 245±5°C TEST TIME=5±1sec

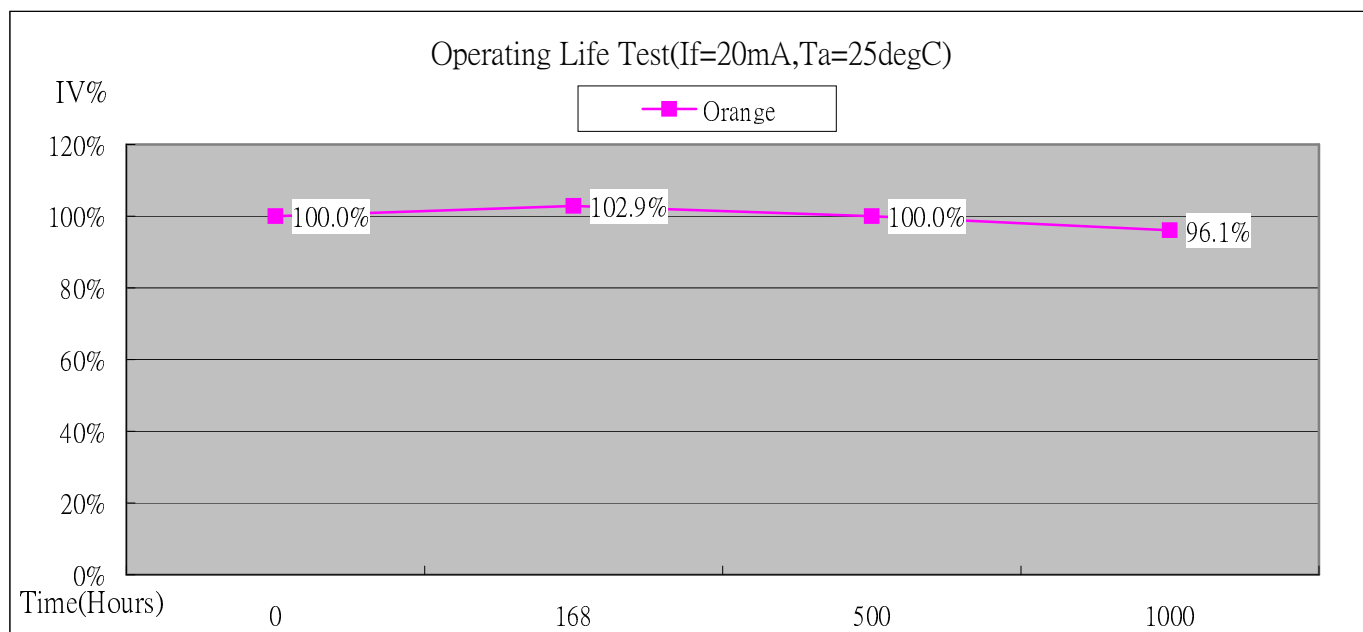
JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

MEASURING ITME	SYMBOL	CONDITIONS	FAILURE CRITERIA
LUMINOUS INTENSITY	IV	If=20mA	IV<0.5*L.S.L
FORWARD VOLTAGE	VF	If=20mA	VF>1.2*U.S.L
REVERSE CURRENT	IR	Vr=5V	IR>2*U.S.L
SOLDERABILITY	-	-	LESS THAN 95% SOLDER COVERAGE

U.S.L : Upper Specification Limit

L.S.L : Lower Specification Limit

OPERATION LIFE TEST LUMINANCE RATE CURVE



*Burn-in condition: 20mA

*Projection of Statistical Average Light Output Degradation Performance for LED Technology

Extrapolated from OptoSupply QA Dept. Test Data.

*According to OptoSupply outgoing Packaged Products Specification

*MTBF: 50,000hrs, 90% Confidence (A Failure is Any LED Which is Open, shorted or fails to Emit Light)

*The Projected Data is Base on The Feature of LED Itself Under Normal Operation Conditions.

*Any Improper Circuit Design or External Factors Might Cause a Different Result.

LAMP APPLICATION (PB FREE SOLDERJING)

Apply to LAMP (DIP) SERIES.

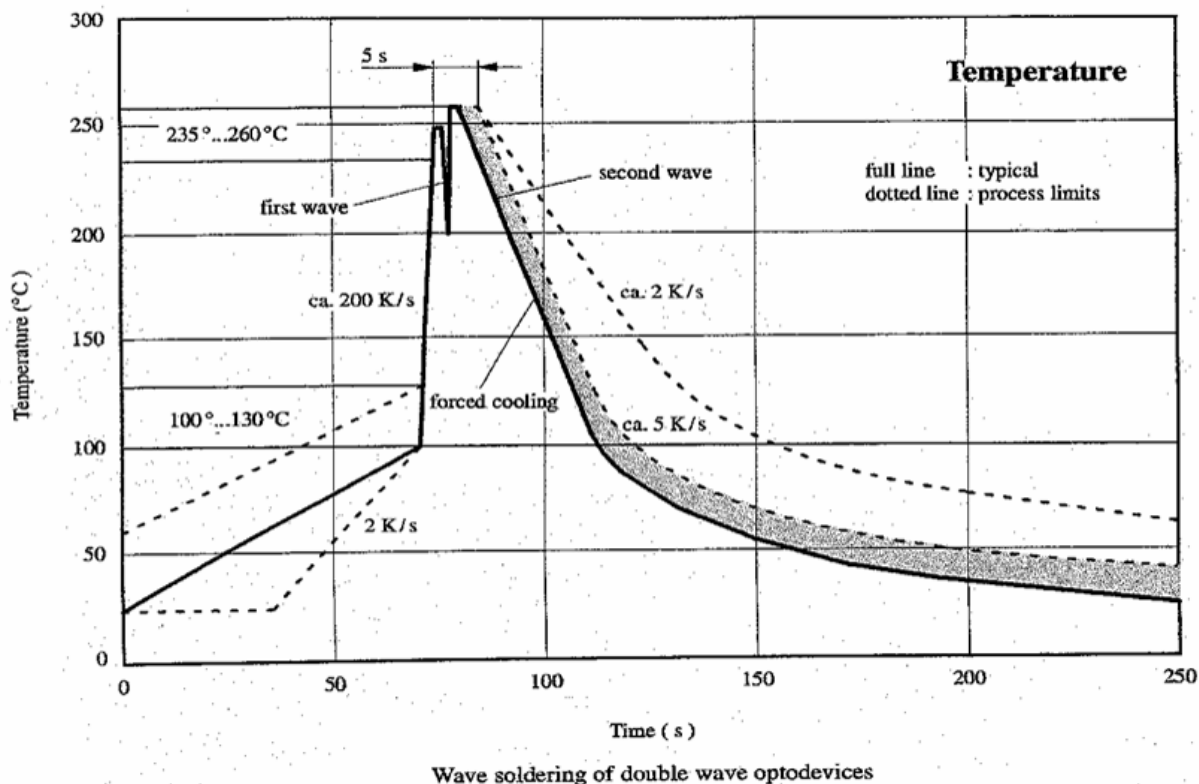
Description:

(1) Manual soldering (Solder Iron)

- (1.1) Temperature at tip of the iron: 350°C Max.
- (1.2) It's banned to load any stress on the resin during soldering.
- (1.3) Soldering time: 3sec.Max.(one time only.)
- (1.4) Leave 3mm of minimum distance from the base of the epoxy.

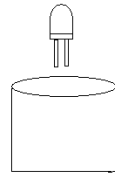
(2) Dip Soldering (Wave Soldering-Solder Bath)

- (2.1) Leave 3mm of minimum distance from the base of the epoxy.
Soldering beyond the base of the tie bar (stand off) is recommended.
- (2.2) When soldering, do not put stress on the LEDs during heating.
- (2.3) Cutting the lead frames at high temperatures may cause LED failure.
- (2.4) Never take next process until the component is cooled down to room temperature after reflow.
- (2.5) After soldering, do not warp the circuit board.
- (2.6) The recommended dip soldering profile is the following.



LAMP PACKING

500pcs/Bag



LED LAMPS

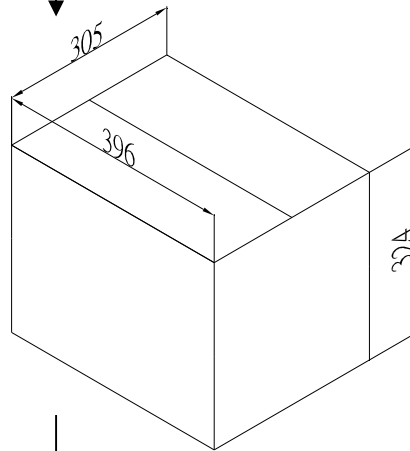
PART NO: _____
LOT NO: _____
IV: _____
VF: _____
COLOR: _____
QTY: _____
QC: _____

BOX

Dimension (mm)

396*305*324

40Bags/Box

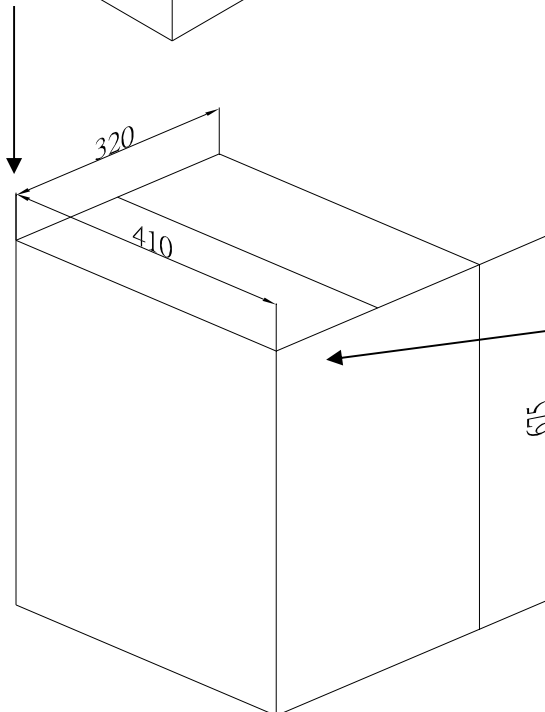


Carton

Dimension (mm)

675*410*320

2Boxes/Carton



LED LAMPS

PART NO: _____
LOT NO: _____
IV: _____
VF: _____
COLOR: _____
QTY: _____
QC: _____