

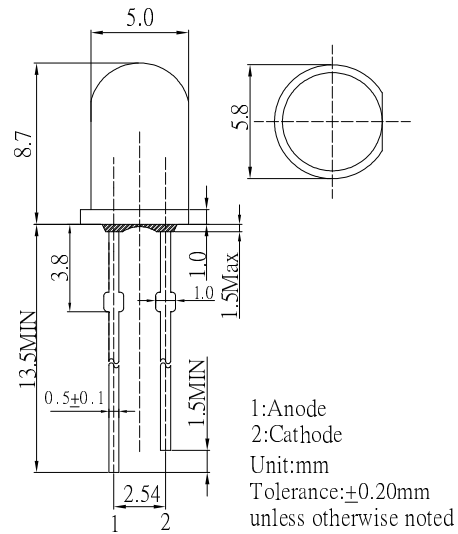
■ Features

- 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	30	mA
Pulse Forward Current#	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	104	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260 °C/ 5sec	-

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

■ Electrical -Optical Characteristics

(Ta=25°C)

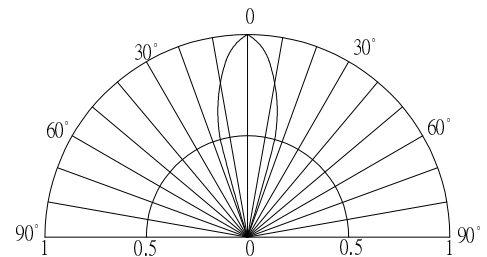
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage*1	V _F	I _F =20mA	-	2.9	3.4	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Domi. Wavelength*2	λ _D	I _F =20mA	500	505	510	nm
Luminous Intensity*3	I _v	I _F =20mA	6600	8000	-	mcd
50% Power Angle	2θ _{1/2}	I _F =20mA	-	30	-	deg

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

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

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

■ Directivity

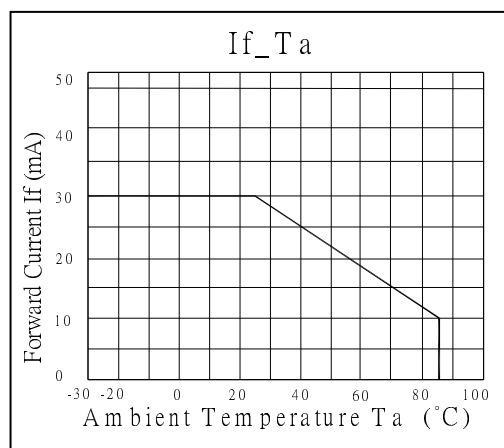
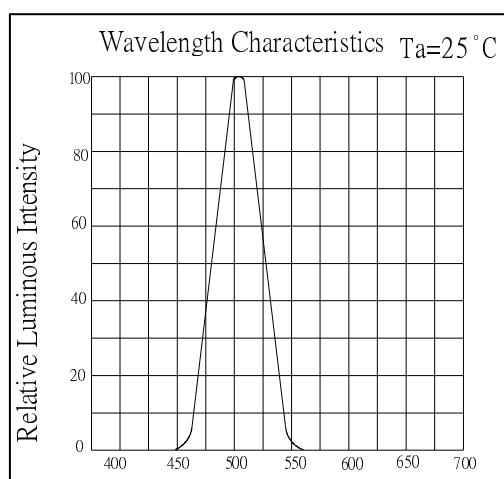
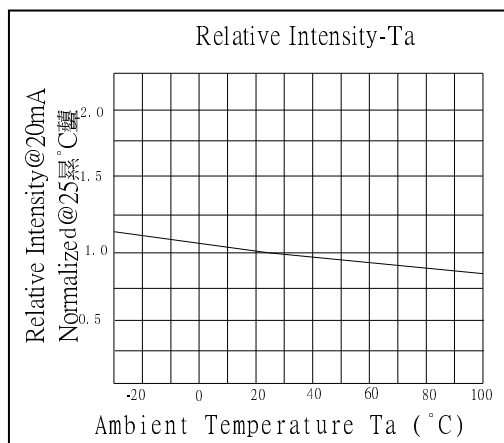
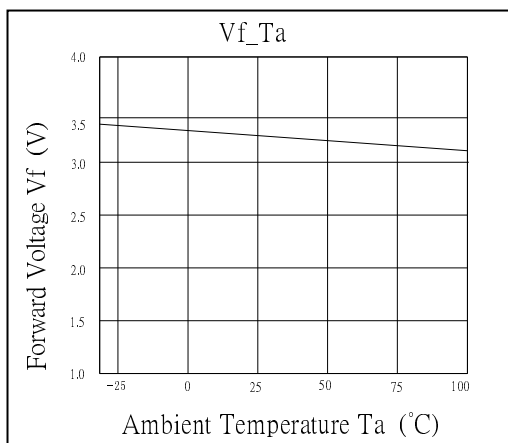
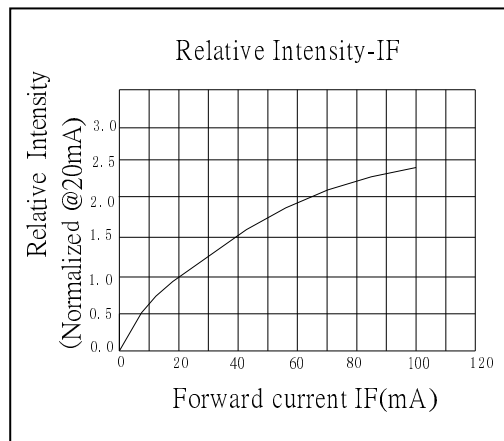
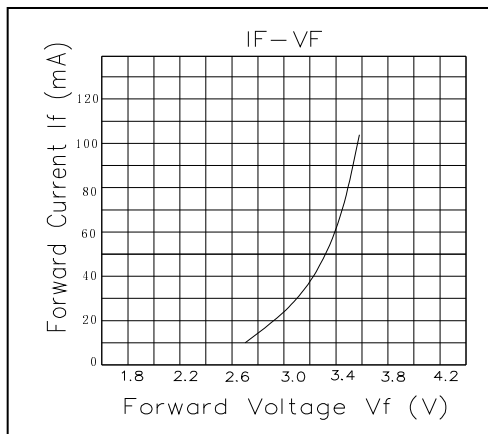


LED & Application Technologies



InGaN LED

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES



RELIABILITY TEST REPORT

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

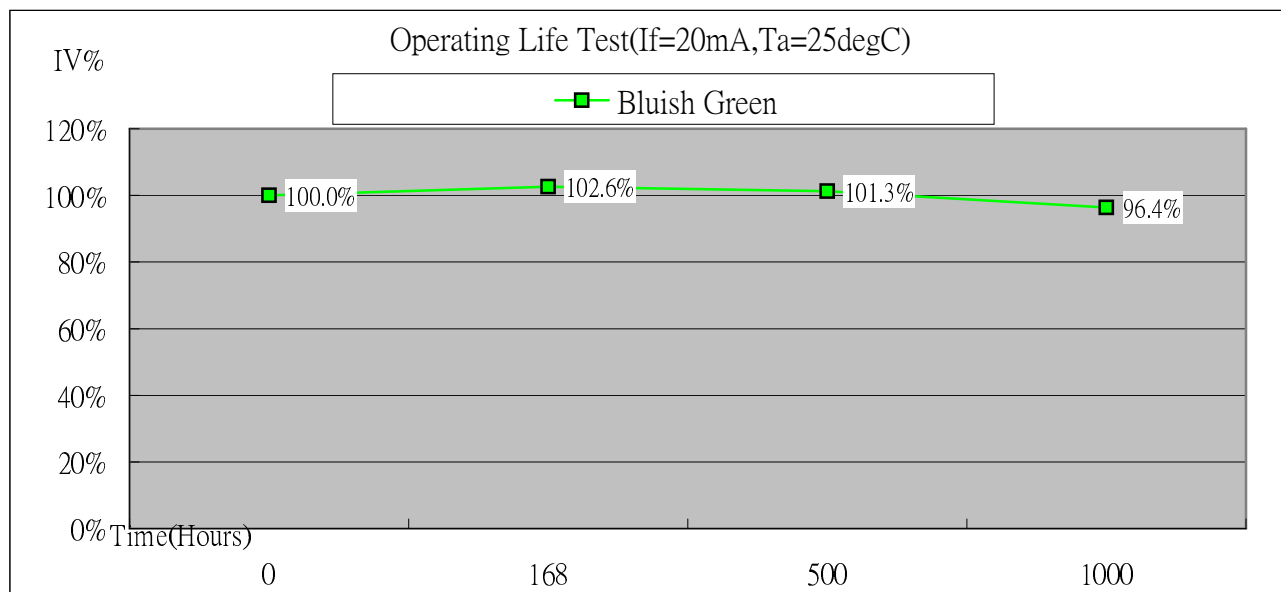
JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

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



LAMP APPLICATION (PB FREE SOLDERJING)

Apply to LAMP (DIP) SERIES.

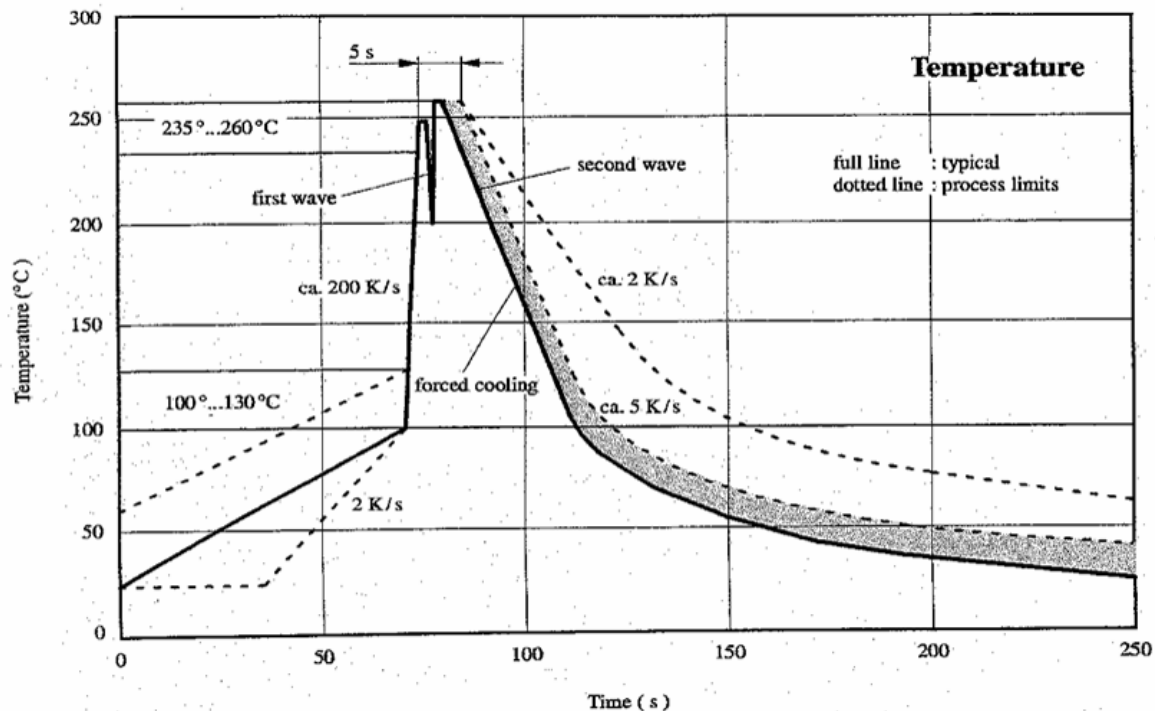
Description:

(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.

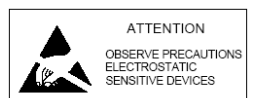
(2) Dip Soldering (Wave Soldering-Solder Bath)

- (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.



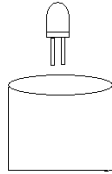
Wave soldering of double wave optodevices

LED & Application Technologies



LAMP PACKING

500pcs/Bag



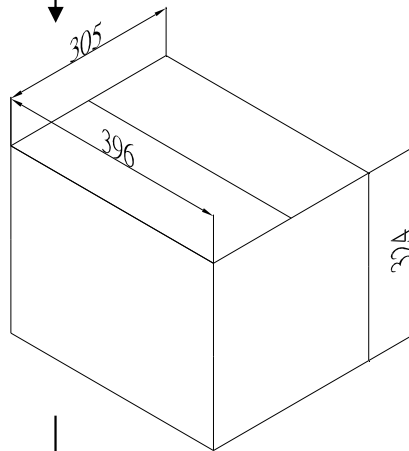
LED LAMPS	
PART NO:	_____
LOT NO:	_____
IV:	_____
VF:	_____
COLOR:	_____
QTY:	_____
QC:	_____

BOX

Dimension (mm)

396*305*324

40Bags/Box

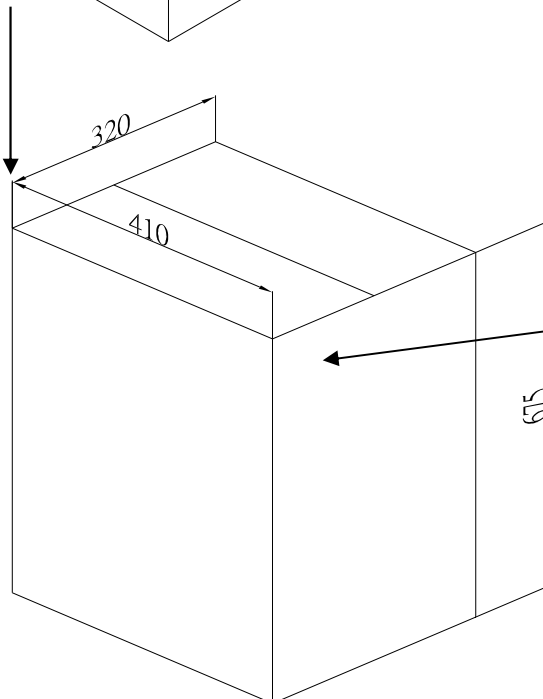


Carton

Dimension (mm)

675*410*320

2Boxes/Carton



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