

Sample Approval Sheet

Customer Name: UNI

Product Name: 5.1x4.3mm Oval Blue LED

Model: OSB5SA5HA3B-NO

Date: July.06, 2010

Optosupply			
Prepared by	Checked by	Approved by	Marketing Dept.
Huirong Peng	Kyle Ian	Eddie	Daisy Tsai

CUSTOMER CONFIRMATION		
Confirmed by	Checked by	Approved by

Hong Kong Office :

Optosupply Limited

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Factory:

Optosupply Electronics (SZ) Limited

Optosupply Industrial Zone, South Dabu, Longhu Road, Longdong Village, Longgang Town, Shenzhen. P.R.C.

Tel: (86) 755-8484 6601 (106) Fax: (86) 755-8484 6596

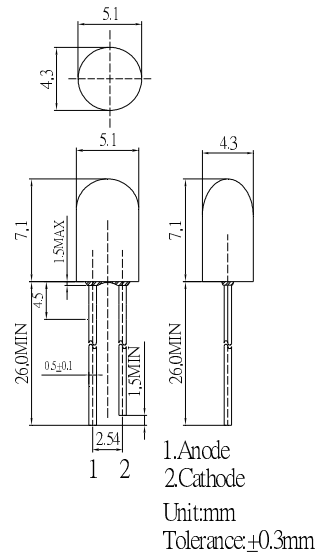
E-mail : sales-hk@optosupply.com Website: www.optosupply.com

■Features

- High Luminous LEDs
- 5.1x4.3mm Standard Directivity
- Long Lifetime Operation
- Superior Weather-resistance
- UV Resistant Epoxy
- Color Transparent Type

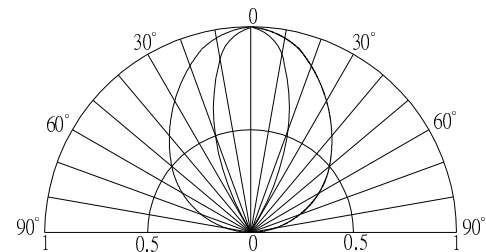
■Applications

- Traffic Signal
- Backlighting
- Signal and channel letter
- 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}	120	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	108	mW
Operating Temperature	Topr	-40~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature	Tsol	260°C/5sec	-

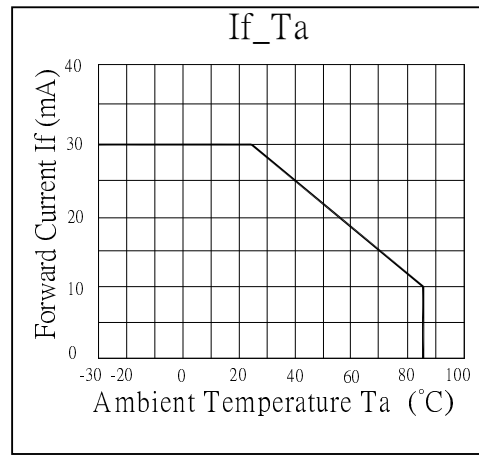
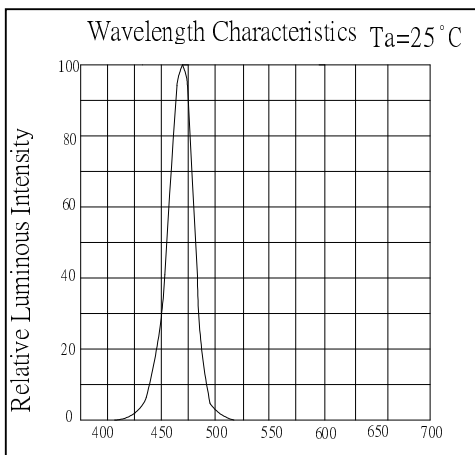
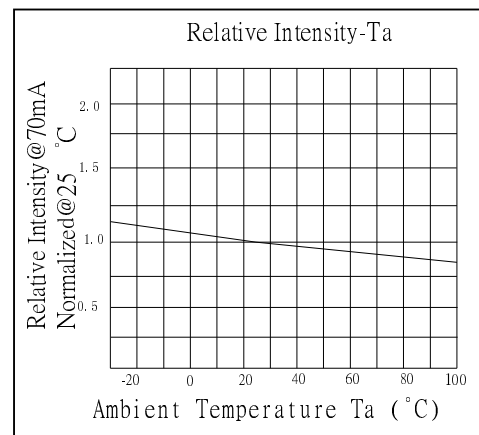
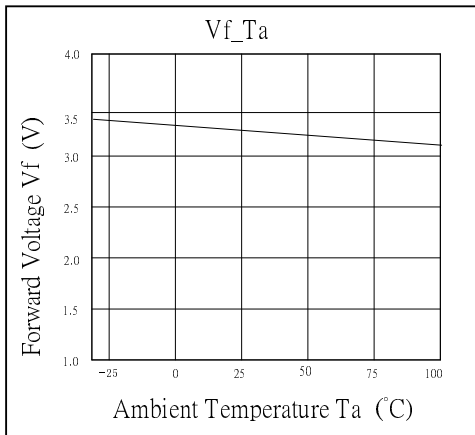
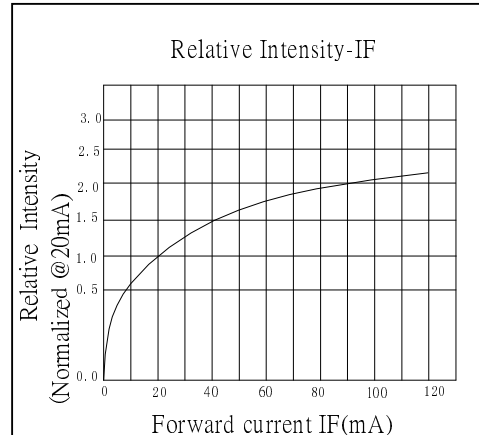
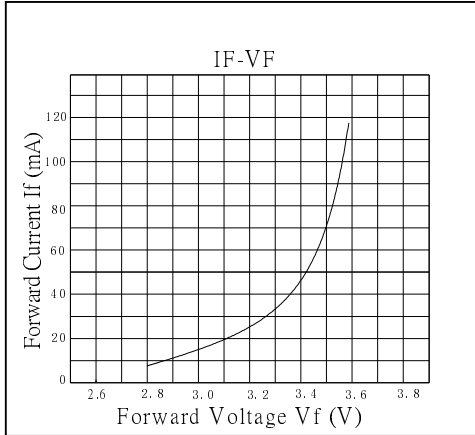
*Pulse width Max.10ms , Duty ratio max 1/10

■Directivity

■Electrical -Optical Characteristics
(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =20mA	2.9	3.1	3.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Domi. Wavelength*	λ _D	I _F =20mA	465	470	475	nm
Luminous Intensity*	I _v	I _F =20mA	2180	3000	4200	mcd
50% Power Angle	2θ _{1/2}	I _F =20mA	-	100/40	-	deg

*1 Tolerance of dominant wavelength is ±1nm

*2 Tolerance of luminous intensity is ±15%

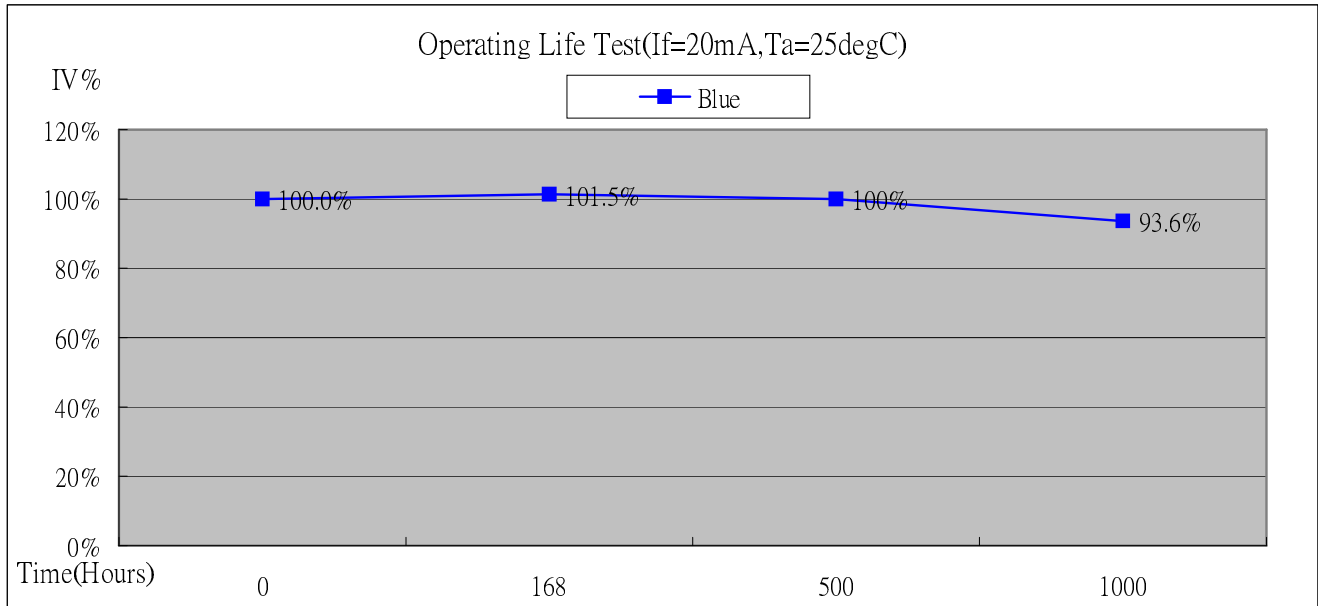
InGaN LED
TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES


RELIABILITY TEST REPORT

CLASSIFICATION	TEST TIME	TEST CONDITON
ENDURANCE TEST	OPERATION LIFE	If: 20mA Ta:25±5 TEST TIME=1000HRS(-24HRS,+72HRS)
	HIGH TEMPERTURE HIGH HUMIDITY STORAGE	R.H:90~95% Ta:65±5°C TEST TIME=240HRS(+2HRS)
	HIGH TEMPERTURE STORAGE	Ta:105±5°C TEST TIME=500HRS(-24HRS,+48HRS)
	LOW TEMPERTURE STORAGE	Ta:-55±5°C TEST TIME=500HRS(-24HRS,+48HRS)
ENVIRONMENTAL TEST	TEMPERTURE CYCLING	105°C~25°C~~55°C~25°C 60min 10min 60min 10min 20cycles
	THERMAL SHOCK	105°C~~55°C 10min 10min 10cycles
	SOLDER RESISTANCE	Ta:260±5°C TEST TIME=10±1sec
	SOLDERABILITY	Ta:230±5°C TEST TIME=5±1sec

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

MEASURING ITME	SYMBOL	CONDITIONS	FAILURE
LUMINOUS INTENSITY	IV	IF=20mA	IV<0.5*INITIAL VALUE
FORWARD VOLTAGE	VF	IF=20mA	VF>1.2*INITIAL VALUE
REVERSE CURRENT	IR	Vr=5V	IR>2*SPEC

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:100,000hrs, 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.

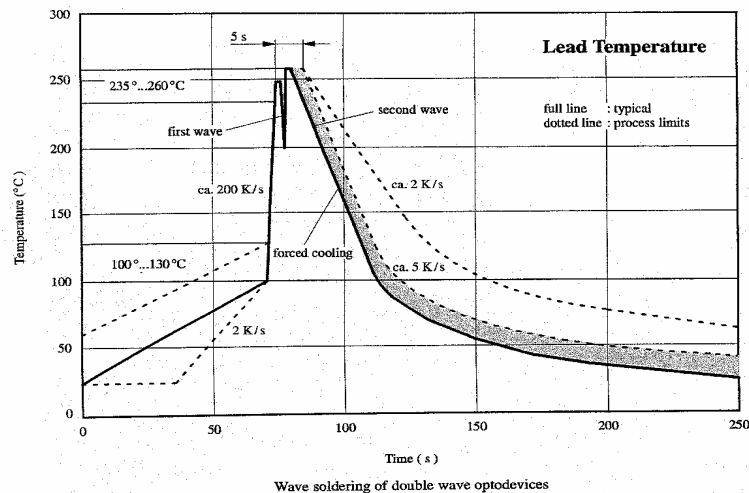
Description:

(1) Manual soldering (Solder Iron)

- (1.1) Temperature at tip of the iron: 300°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.

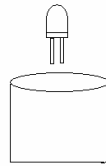
(2) Dip Soldering (Wave Soldering-Solder Bath)

- (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

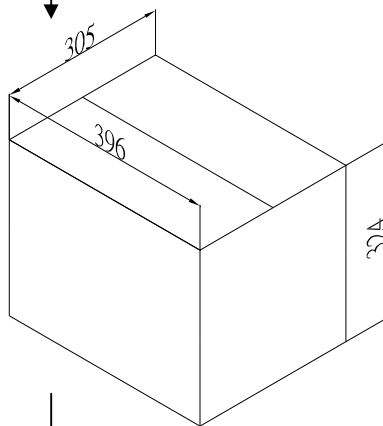
500pcs/Bag



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

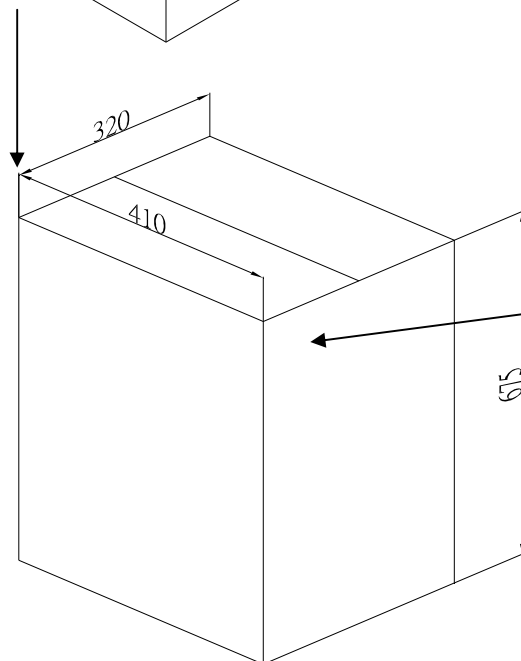
BOX

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:	_____

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