Light It Up

5mm Round Pure Green LED

OSG5DA5A34G-1

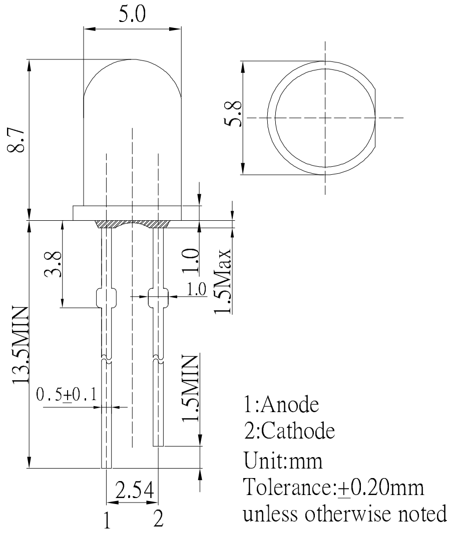
■Features

- 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



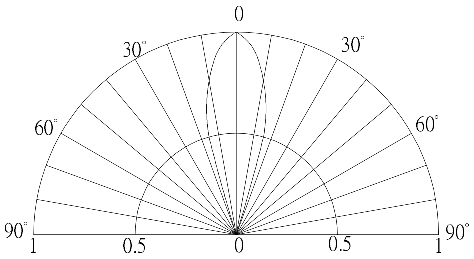
1:Anode
2:Cathode
Unit:mm
Tolerance:±0.20mm
unless otherwise noted

■Absolute Maximum Rating (Ta=25℃)

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	Topr	-30 ~ +85	℃
Storage Temperature	Tstg	-40 ~ +100	℃
Lead Soldering Temperature	Tsol	260℃/ 5sec	-

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

■Directivity



■Electrical -Optical Characteristics (Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage*	V_F	I_F=20mA	2.7	3.0	3.4	V
DC Reverse Current	I_R	V_R=5V	-	-	10	µA
Domi. Wavelength*	λ_D	I_F=20mA	520	525	530	nm
Luminous Intensity*	Iv	I_F=20mA	6600	8000	-	mcd
50% Power Angle	$2\theta_{1/2}$	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

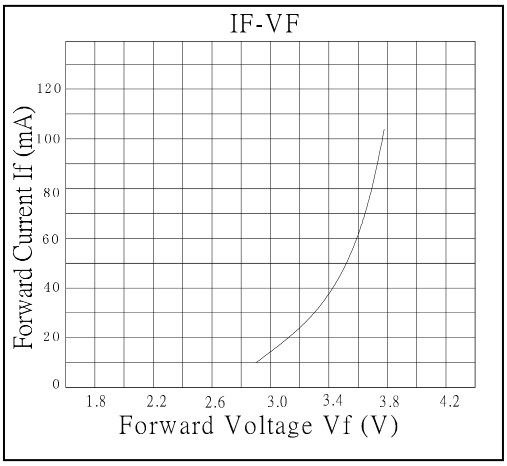
LED & Application Technologies

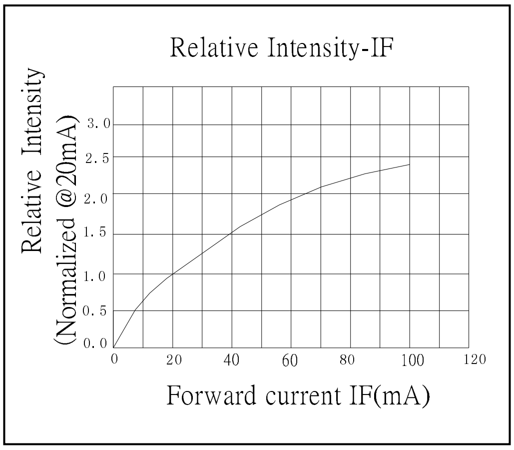
ISO 9001: 2008

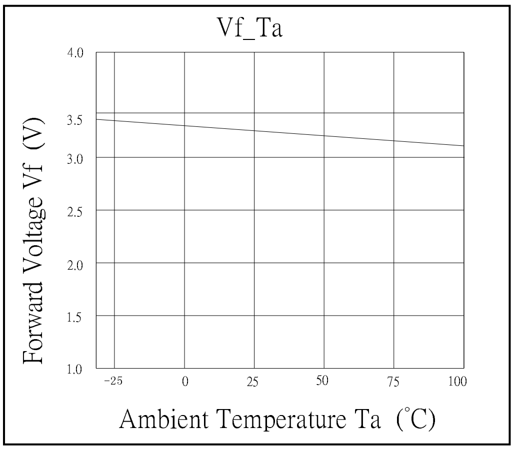
ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICES

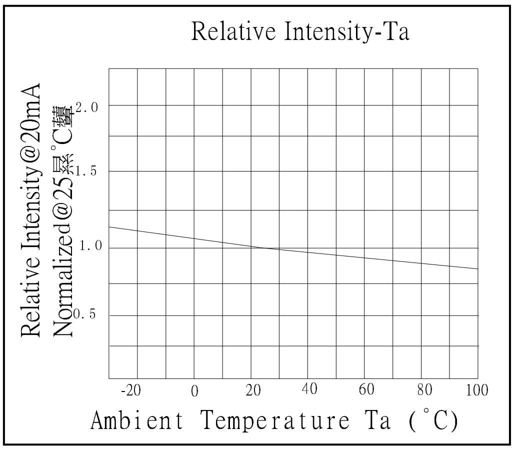
InGaN LED

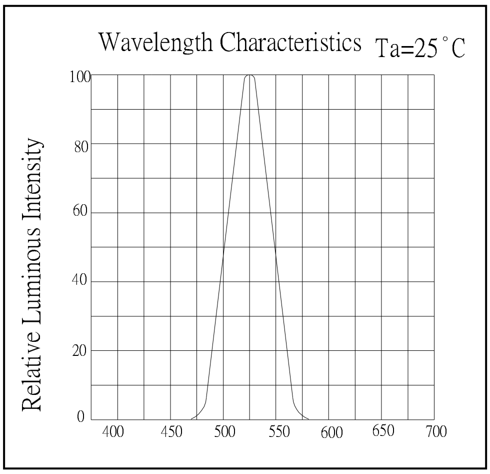
TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

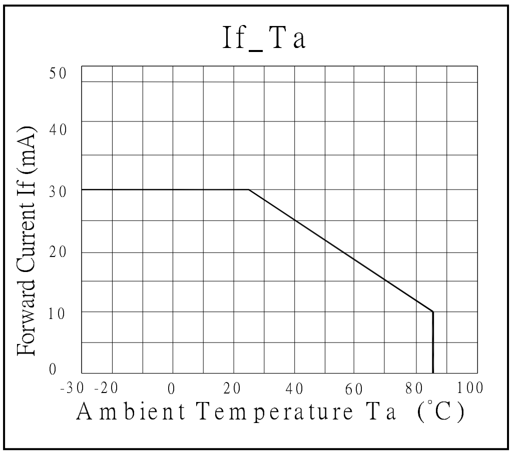












RELIABILITY TEST REPORT

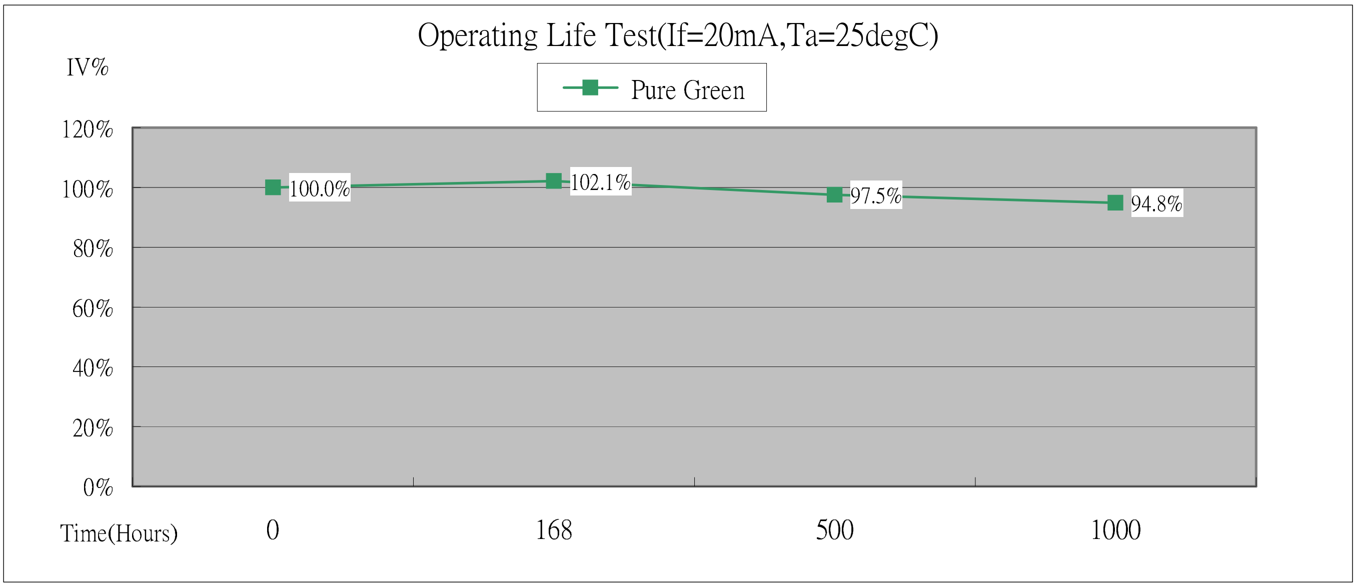
CLASSIFICATION	TEST ITEM	TEST CONDTION
ENDURANCE TEST	ROOM TEMPERATURE OPERATION LIFE	If: 20mA Ta:25±5 ℃ TEST TIME=1000HRS
	HIGH TEMPERTURE HIGH HUMIDITY STORAGE	R.H:90~95% Ta:65±5℃ TEST TIME=240HRS(+2HRS)
	HIGH TEMPERTURE STORAGE	Ta:100℃ TEST TIME=500HRS(-24HRS,+48HRS)
	LOW TEMPERTURE STORAGE	Ta:-40℃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

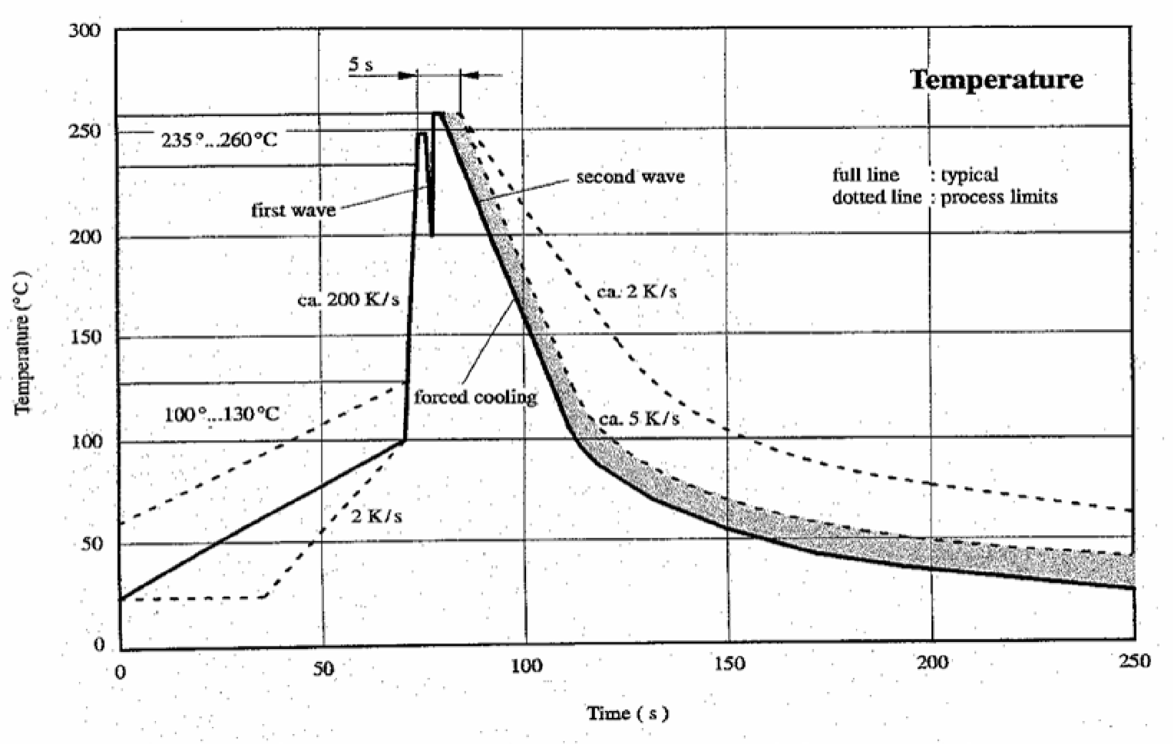
Description:

(1) Manual soldering (Solder Iron)

- (1.1) Temperature at tip of the iron:350℃ 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

LAMP PACKING

500pcs/Bag

BOX

Dimension（mm）

396*305*324

40Bags/Box

Carton

Dimension（mm）

675*410*320

2Boxes/Carton