

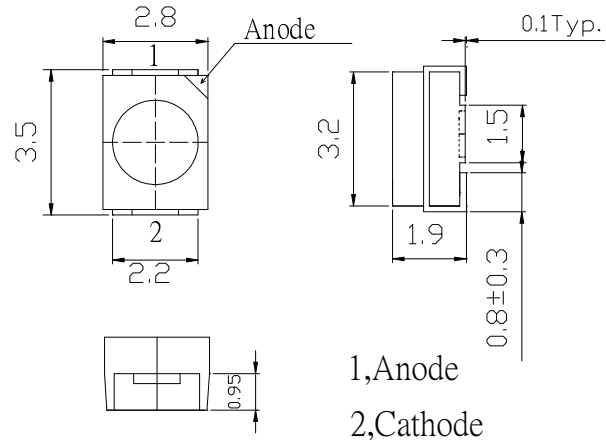
■Features

- High Radiant Power PLCC2 Top SMD LEDs
- 3.5x2.8x1.9mm Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

■Applications

- Automatic Control System
- Photo Detector
- Computer I/O Peripheral

■Outline Dimension



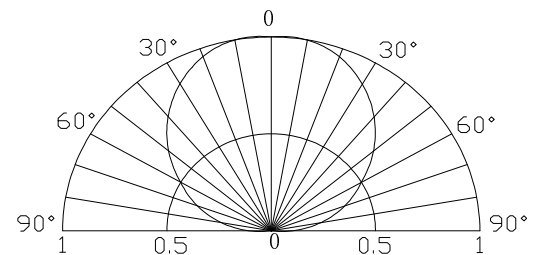
■Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	100	mA
Pulse Forward Current*	I _{FP}	200	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	180	mW
Operating Temperature	Topr	-30 ~ +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)

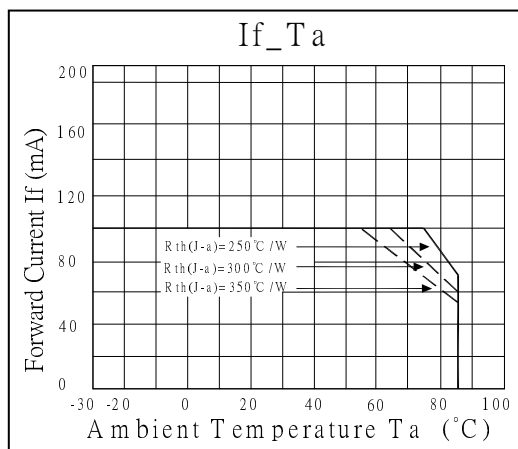
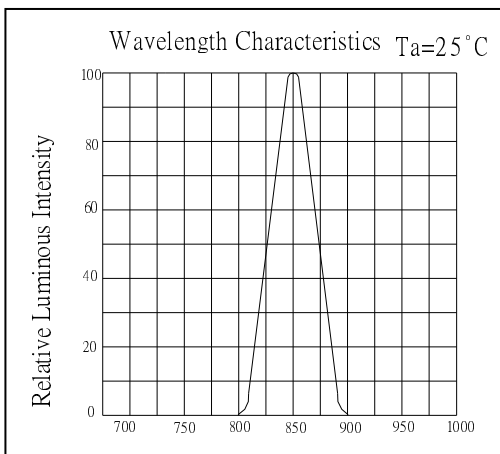
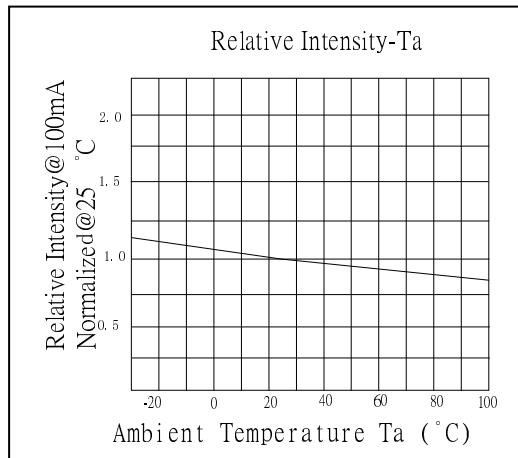
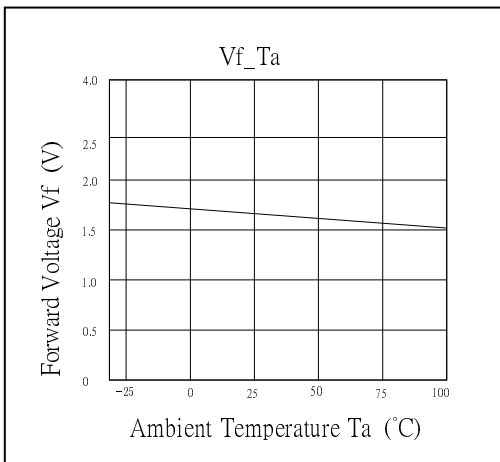
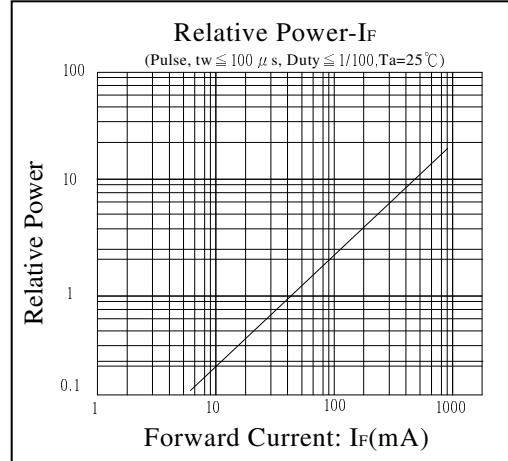
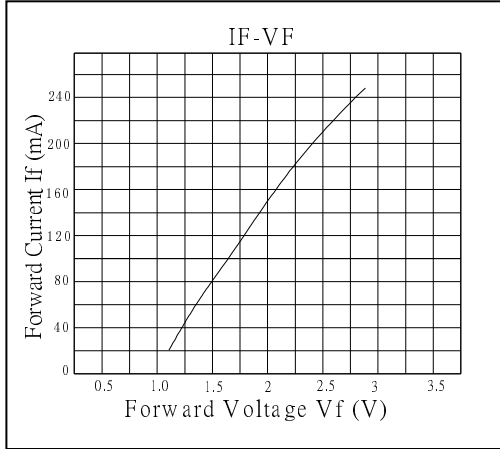
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =100mA	-	1.6	1.8	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Peak Wavelength	λ _p	I _F =100mA	-	850	-	nm
Radiant Power	P _O	I _F =100mA	27	-	-	mW
Radiant Intensity	I _e	I _F =100mA	30	40	-	mW/Sr
50% Power Angle	2θ _{1/2}	I _F =100mA	-	120	-	deg

*1 Tolerance of peak wavelength is ±1nm

*2 Tolerance of Radiant Power is ±15%

AlGaAs LED

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES



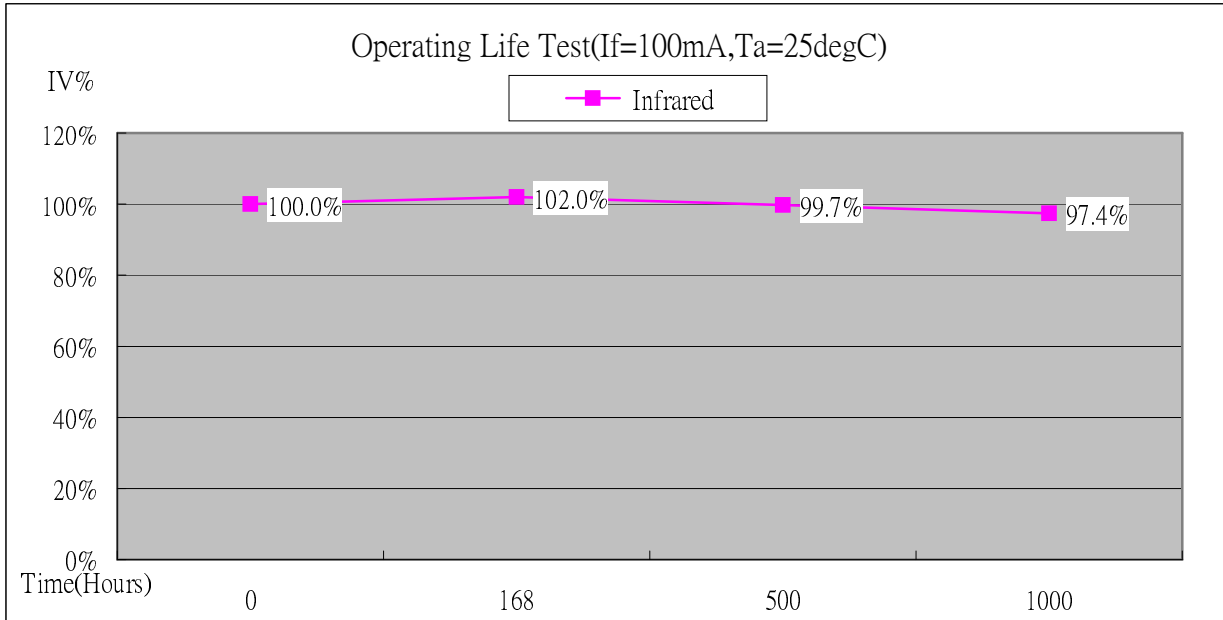
RELIABILITY TEST REPORT

CLASSIFICATION	TEST ITEM	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
ENVIRONMENTAL TEST	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: 100mA

*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.

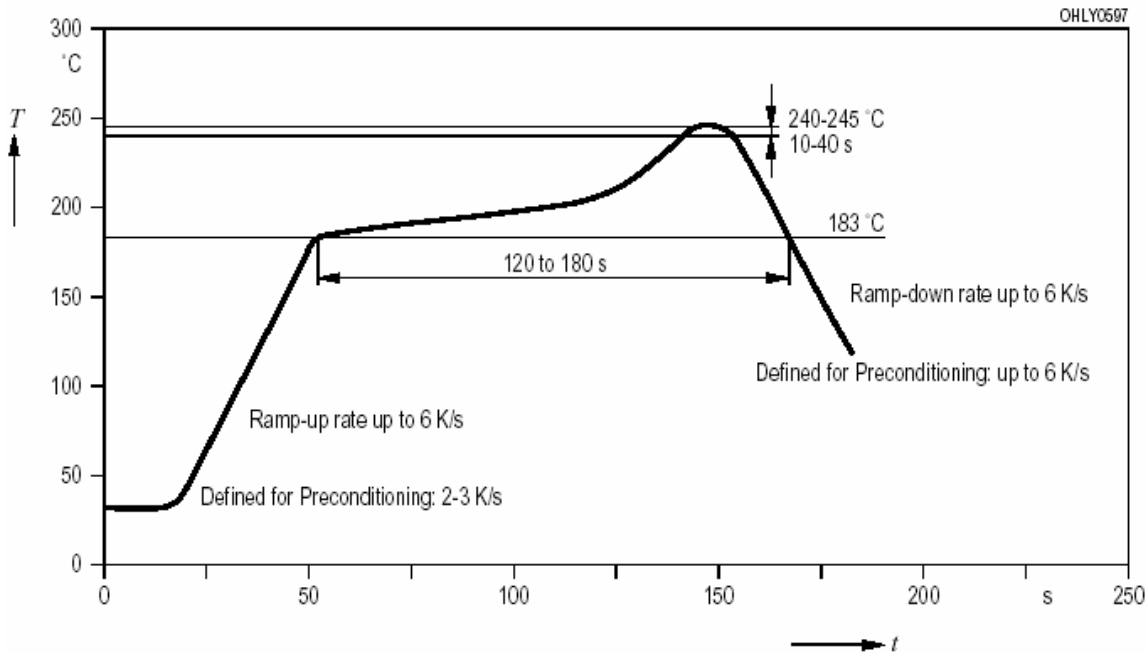
*Any Improper Circuit Design or External Factors Might Cause a Different Result.

Soldering Heat Reliability :

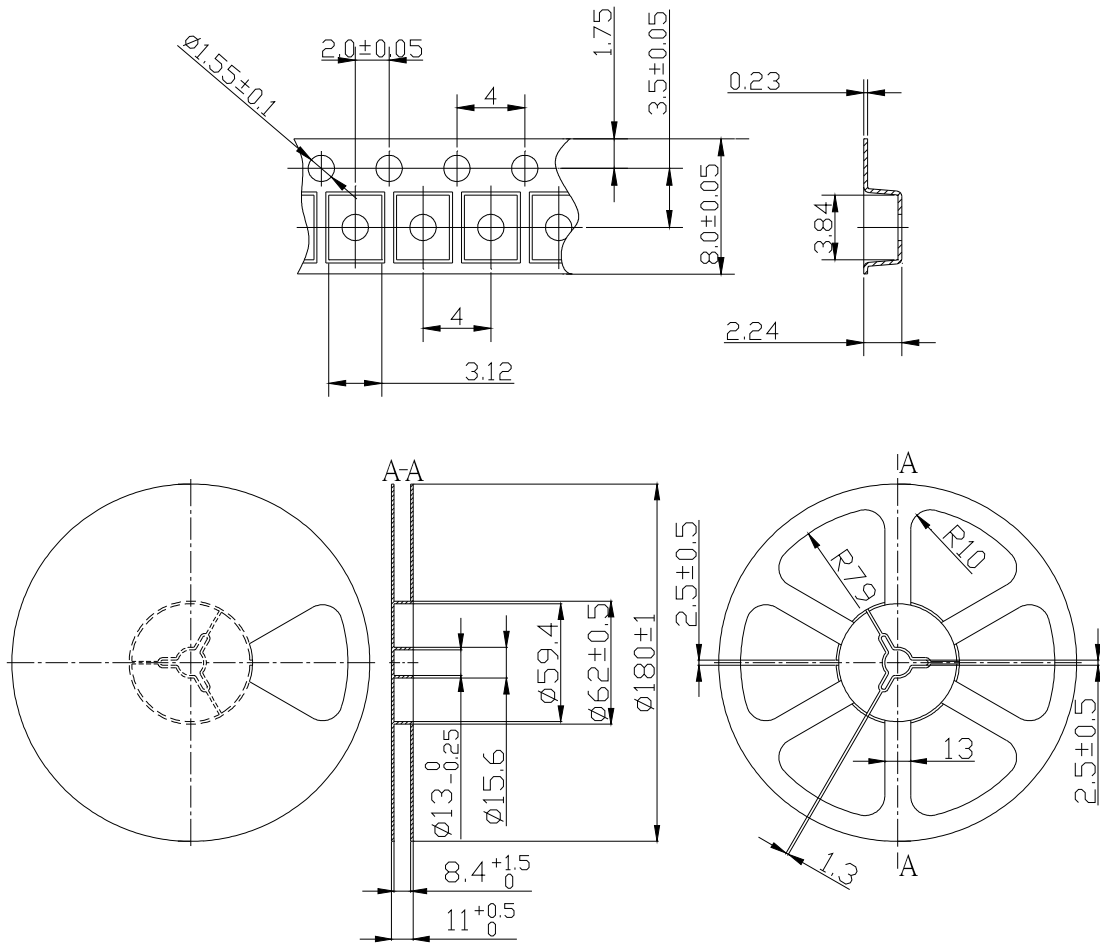
IR Reflow soldering Profile

- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.
- Repairing should not be done after the LEDs have been soldered.

When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



PACKING DIMENSIONS



Notes:

1. Unit: mm
2. 2000pcs/Reel

X-ON Electronics

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