

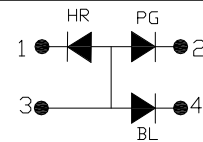
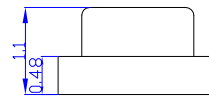
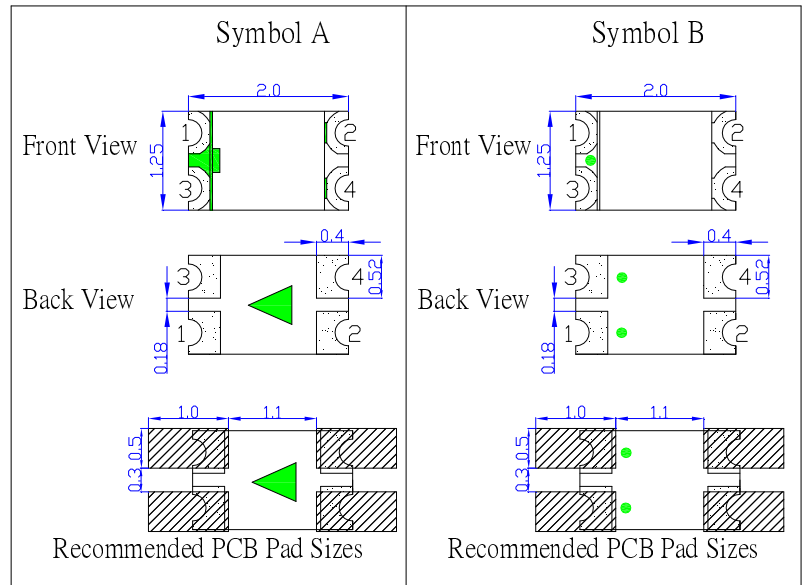
**■Features**

- Full-Color
- Super high brightness of surface mount LED
- Water Clear Flat Mold
- Compact package outline  
(LxWxT) of 2.0mm x 1.25mm x 1.1mm
- Compatible to IR reflow soldering.

**■Applications**

- Backlighting (switches, keys, etc.)
- Marker lights (e.g. steps, exit ways, etc.)

**■Outline Dimension**



Notes: 1.All dimensions are in millimeters  
2.Tolerance is ±0.10 mm unless otherwise noted

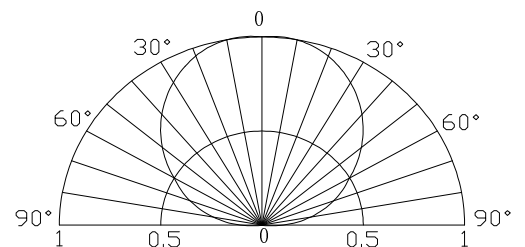
**■Absolute Maximum Rating**

(Ta=25°C)

Item	Symbol	Value		Unit
		HR	PG/BL	
DC Forward Current	I <sub>F</sub>	20	20	mA
Pulse Forward Current*	I <sub>FP</sub>	100	100	mA
Reverse Voltage	V <sub>R</sub>	5	5	V
Power Dissipation	P <sub>D</sub>	78	108	mW
Operating Temperature	T <sub>opr</sub>	-40 ~ +85		°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85		°C
Lead Soldering Temperature	T <sub>sol</sub>	260°C/5sec		-




\*Pulse width Max 0.1ms, Duty ratio max 1/10

**■Directivity**



**■Electrical -Optical Characteristics**

(Ta=25°C)

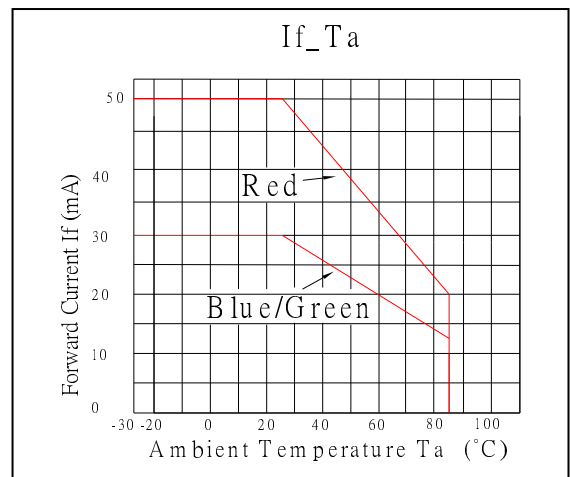
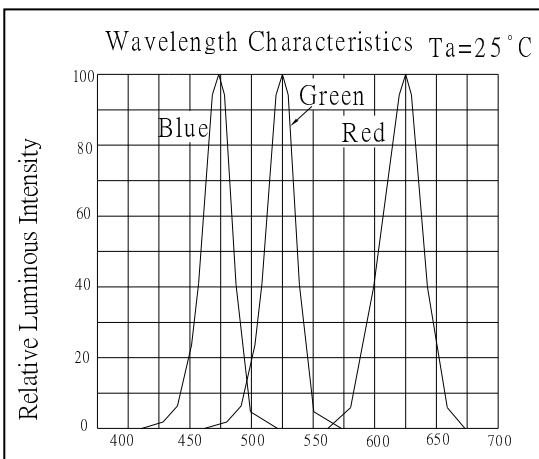
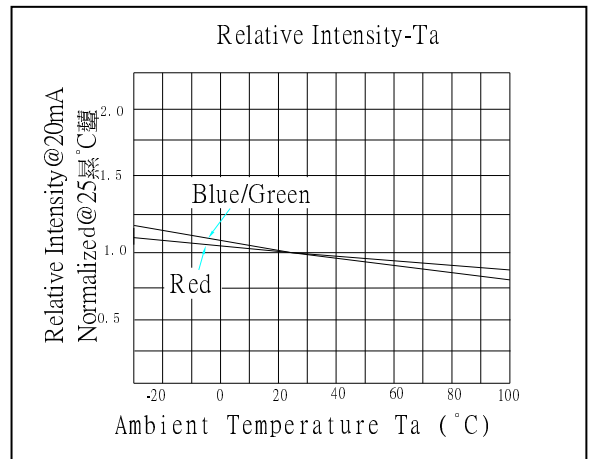
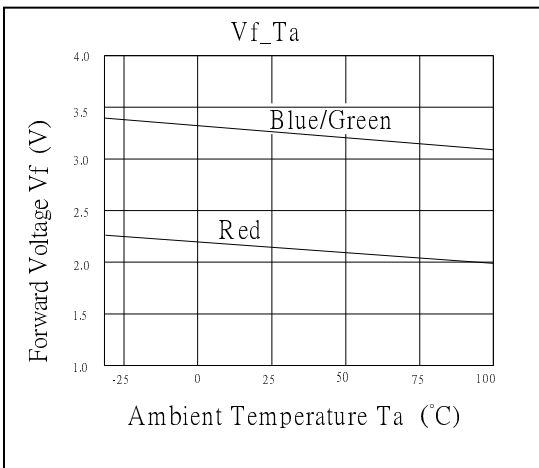
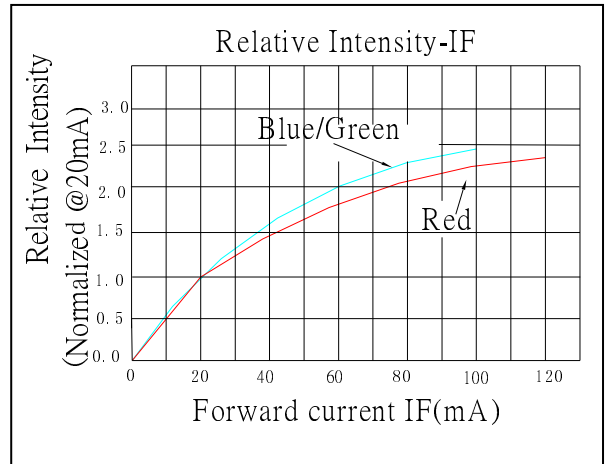
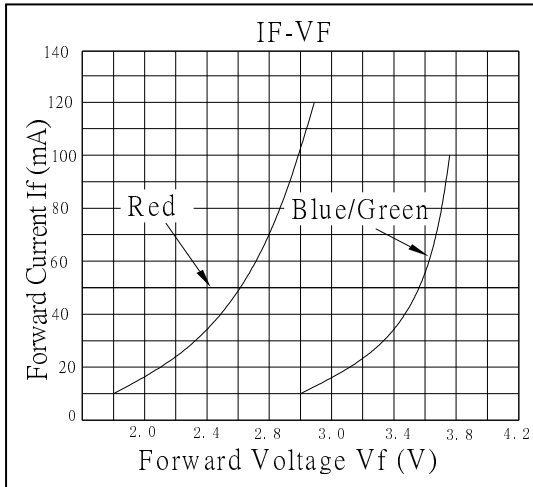
Part Number	Color			V <sub>F</sub> (V)			I <sub>R</sub> (μA)	I <sub>v</sub> (mcd)			λD(nm)			2θ1/2(deg)
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
				I <sub>F</sub> =20mA			V <sub>R</sub> =5V			I <sub>F</sub> =20mA				
OSTB0805C1C-A	Blue	BL		2.8	3.0	3.6	10	100	200	-	460	465	475	120
	Pure Green	PG		2.8	3.0	3.6	10	250	450	-	520	525	530	120
	Red	HR		1.8	2.0	2.6	10	80	150	-	620	625	630	120

\*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

**TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES**



## RELIABILITY TEST REPORT

CLASSIFICATION	TEST ITEM	TEST CONDITON
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±1sec
	SOLDERABILITY	Ta:245±5°C TEST TIME=5±1sec

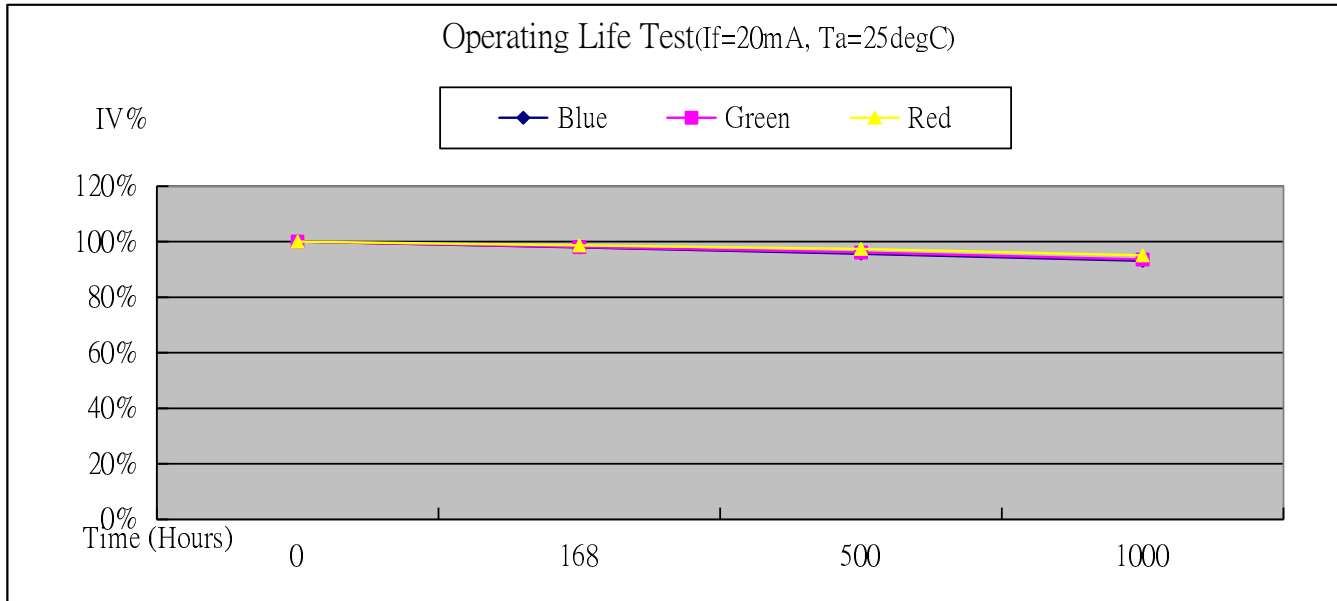
### JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

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

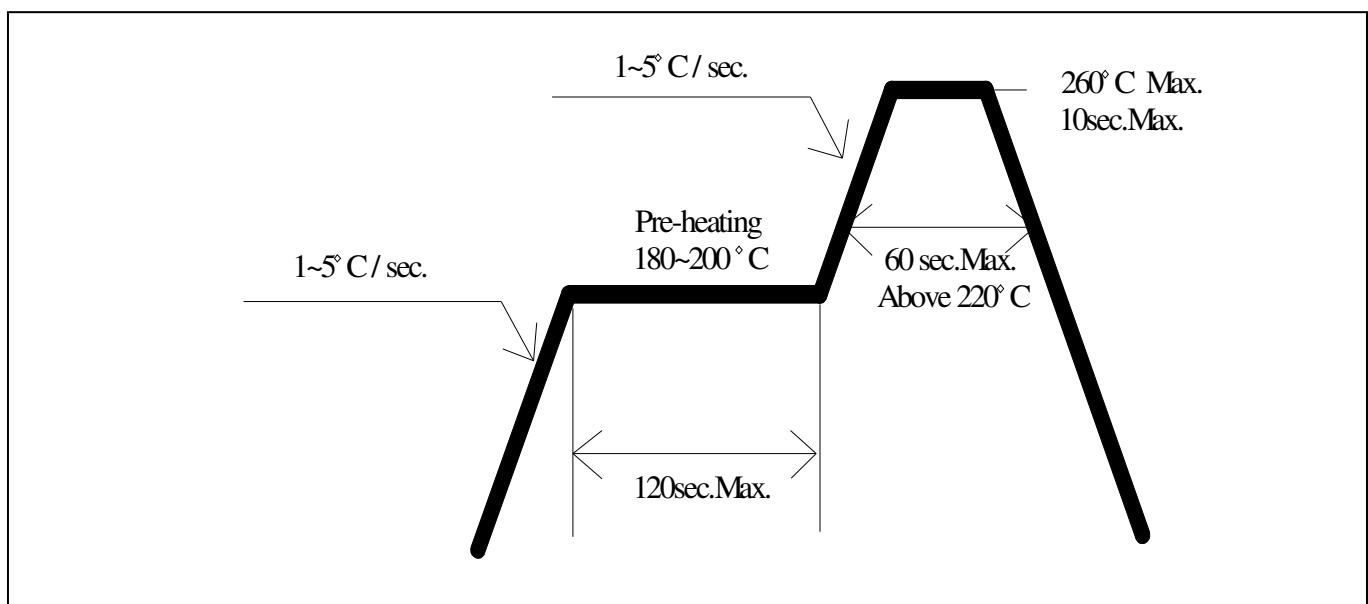
**OPERATION LIFE TEST LUMINANCE RATE CURVE**



■ Soldering Conditions

Reflow Soldering		Hand Soldering	
Pre-Heat	180 ~ 200°C	Temperature Soldering time	350°C Max. 3 sec. Max. (one time only)
Pre-Heat Time	120 sec. Max.		
Peak temperature	260°C Max.		
Dipping Time	<b>10 sec. Max.</b>		
Condition	Refer to Temperature-profile		

• Reflow Soldering Condition(Lead-free Solder)



- \*Recommended soldering conditions vary according to the type of LED
- \*Although the recommended soldering conditions are specified in the above table, reflow, or hand soldering at the lowest possible temperature is desirable for the LEDs.
- \*A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.
- All SMD LED products are pb-free soldering available.
- Occasionally there is a brightness decrease caused by the influence of heat or ambient atmosphere during air reflow. It is recommended that the User use the nitrogen reflow method.
- 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.
- 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.