

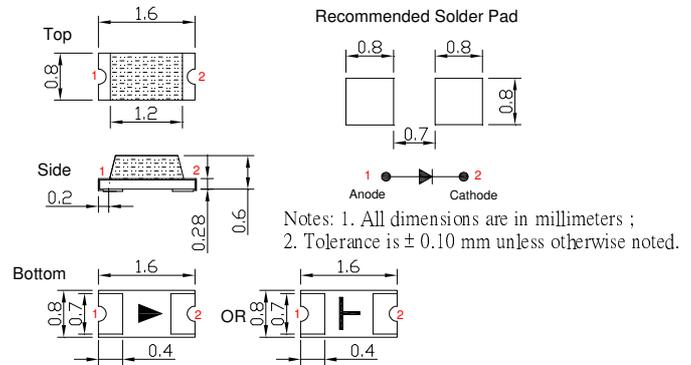
■Features

- Single chip
- Compact package outline
(L x W x T) of 1.6mm x 0.8mm x 0.6mm
- Compatible to IR reflow soldering.
- Water Clear Lens Type

■Applications

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

■Outline Dimension



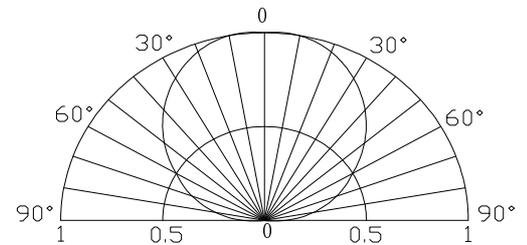
■Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I_F	30	mA
Pulse Forward Current*	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	45	mW
Operating Temperature	T_{opr}	-40 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C
Lead Soldering Temperature	T_{sol}	260°C/5sec	-

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

■Directivity



■Electrical -Optical Characteristics

(Ta=25°C)

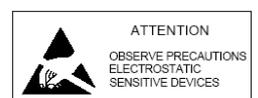
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V_F	$I_F=20mA$	-	1.2	1.5	V
DC Reverse Current	I_R	$V_R=5V$	-	-	10	μA
Peak Wavelength	λ_p	$I_F=20mA$	-	940	-	nm
Transmit Bandwidth	λ	$I_F=20mA$	-	45	-	nm
Radiant Intensity	I_e	$I_F=20mA$	0.2	0.8	-	mW/Sr
50% Power Angle	$2\theta_{1/2}$	$I_F=20mA$	-	120	-	deg

*1 Tolerance of measurements of Peak wavelength is ± 1 nm

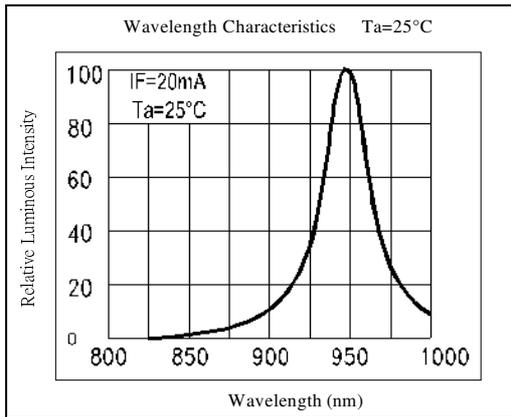
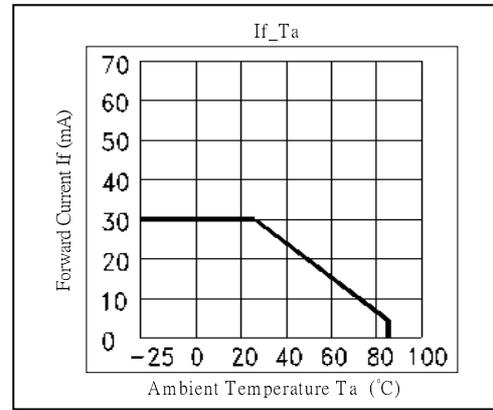
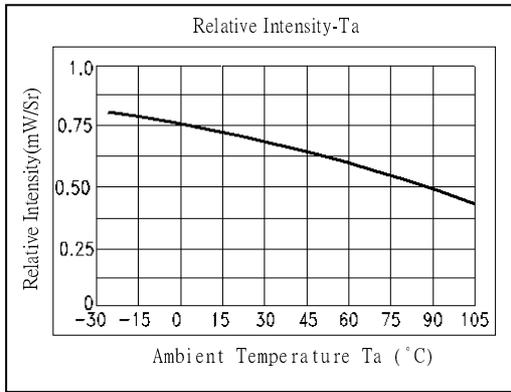
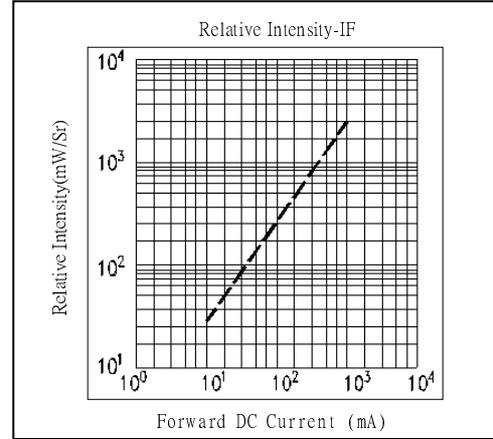
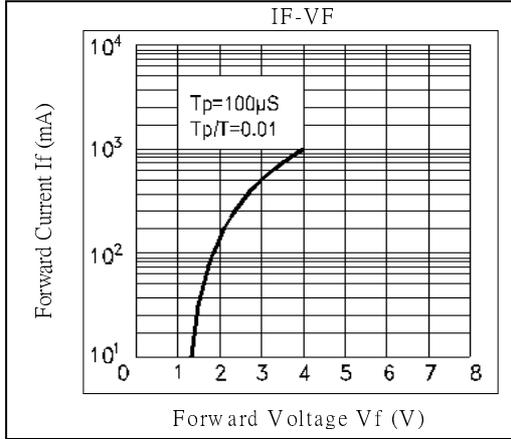
*2 Tolerance of measurements of radiant intensity is $\pm 15\%$

*3 Tolerance of measurements of forward voltage is $\pm 0.1V$

LED & Application Technologies



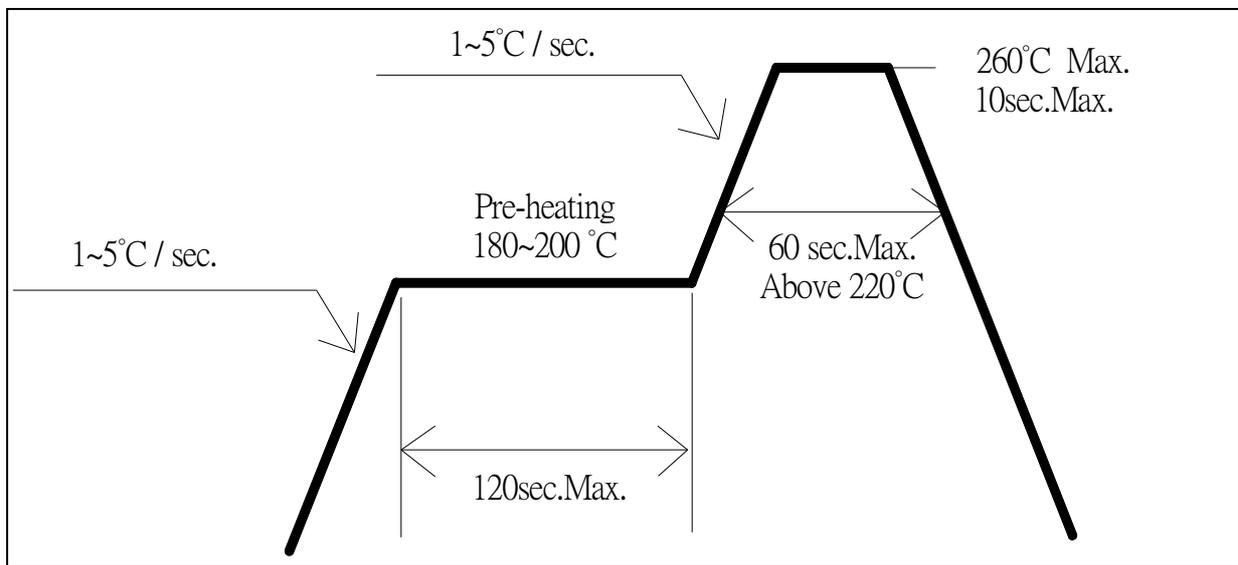
■ Typical Electrical/Optical/Characteristics Curves



■ 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	10 sec. Max.		
Condition	Refer to Temperature-profile		

• Reflow Soldering Condition(Lead-free Solder)



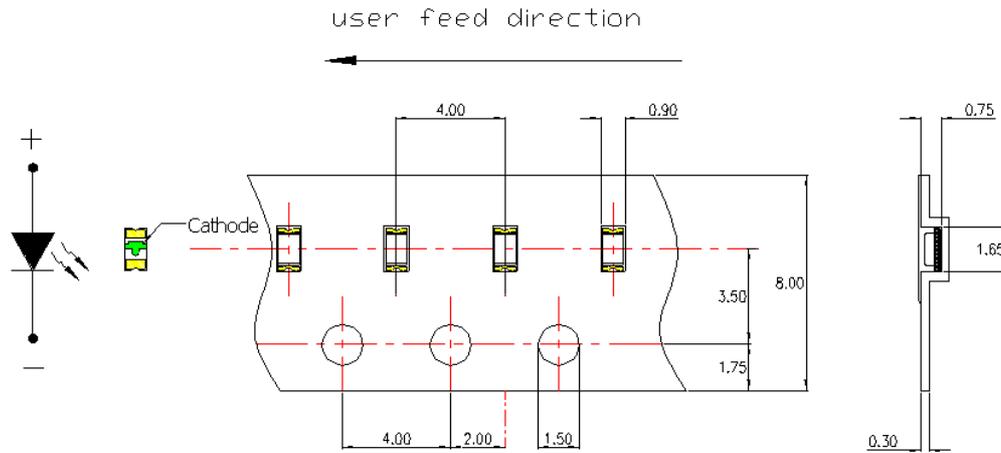
*Recommended soldering conditions vary according to the type of LED

*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.

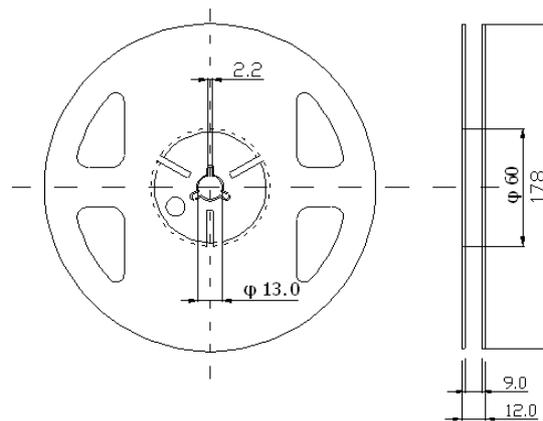
*A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.

- 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.

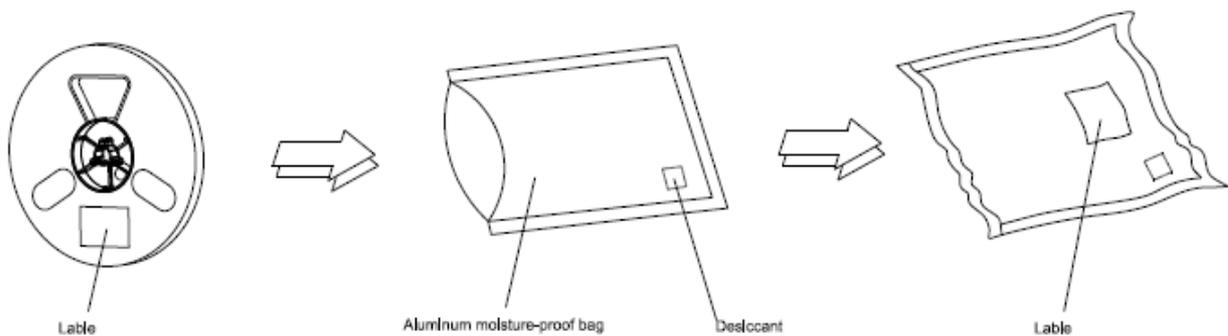
TAPING



■ Reel Dimensions



■ Moisture Resistant Packaging



Notes:

1. Unit: mm