

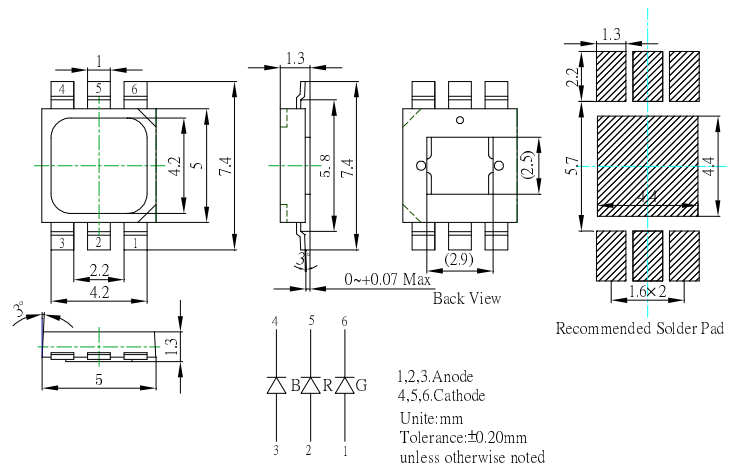
■Features

- Highest luminous flux
- Super energy efficiency
- Superior ESD protection
- Superior UV Resistance

■Applications

- Toys
- Games
- Audio

■Outline Dimension

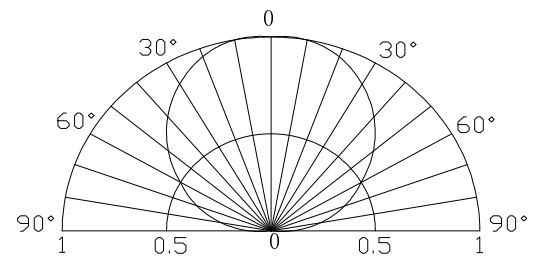


■Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		Red	Green/Blue	
DC Forward Current	I_F	200	200	mA
Pulse Forward Current*	I_{FP}	250	250	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	600	800	mW
Operating Temperature	T_{opr}	-30 ~ +85		°C
Storage Temperature	T_{stg}	-40 ~ +100		°C
Lead Soldering Temperature	T_{sol}	260°C/10sec		-

*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 (R)	$I_F=150mA$	2.0	2.5	3.0	V
	V_F (B/G)	$I_F=150mA$	3.0	3.3	4.0	V
DC Reverse Current	I_R	$V_R=5V$	-	-	10	μA
Domi. Wavelength	λ_D (Red)	$I_F=150mA$	620	625	630	nm
	λ_D (Green)	$I_F=150mA$	520	525	535	nm
	λ_D (Blue)	$I_F=150mA$	465	470	475	nm
Luminous Flux	Φ_v (Red)	$I_F=150mA$	15	20	-	lm
	Φ_v (Green)	$I_F=150mA$	20	30	-	lm
	Φ_v (Blue)	$I_F=150mA$	5	10	-	lm
50% Power Angle	$2\theta_{1/2}$	$I_F=150mA$	-	120	-	deg

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

*2 Tolerance of measurements of luminous flux is ±15%

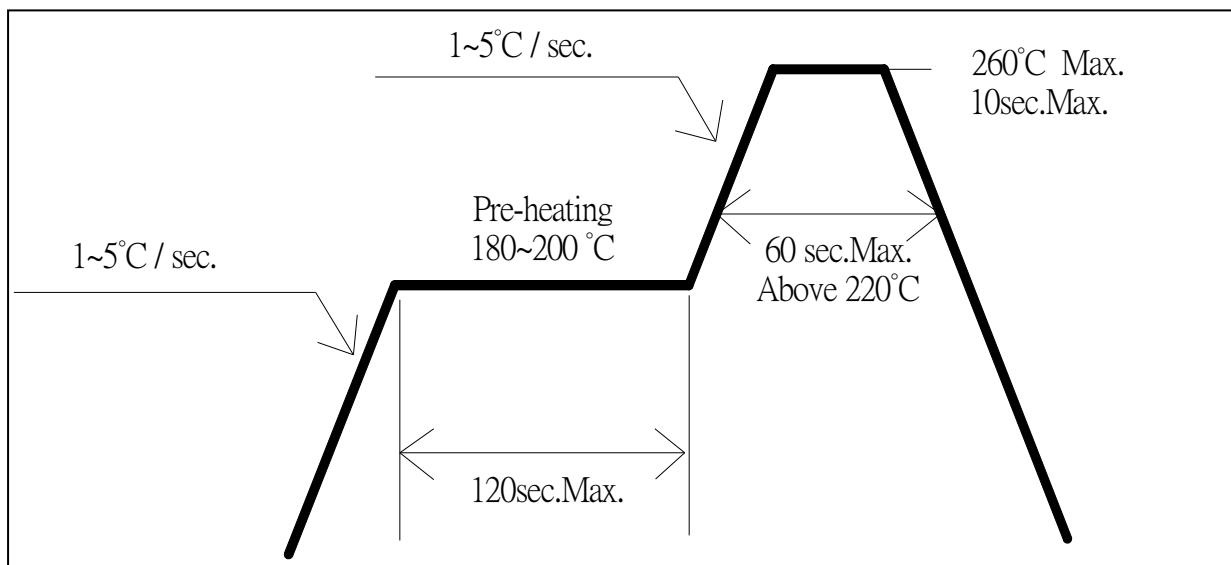
*3 Tolerance of measurements of forward voltage is ±0.1V

Note: Don't drive at rated current more than 5s without heat sink for Tops H Power emitter series.

■ 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)



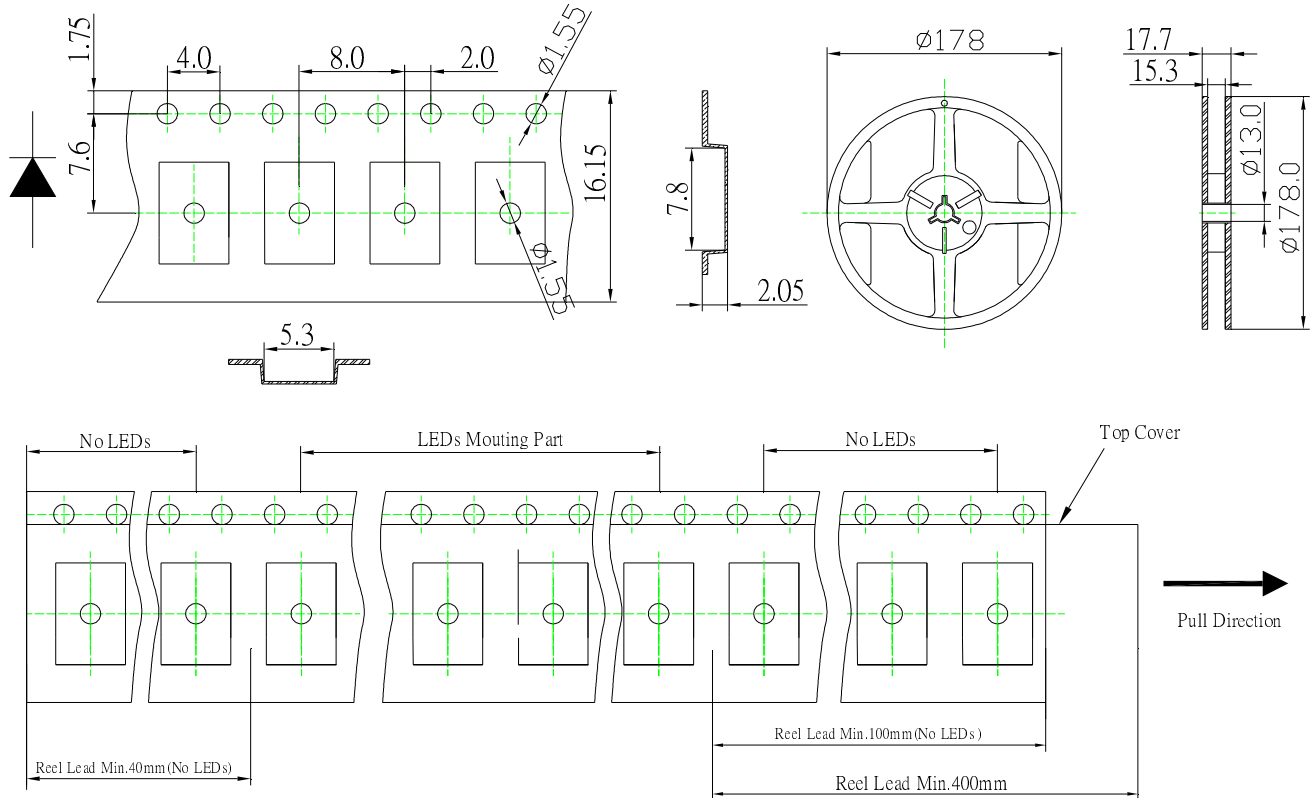
*Recommended soldering conditions vary according to the type of LED

*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 Packing



Remark : 1000pcs /Reel