

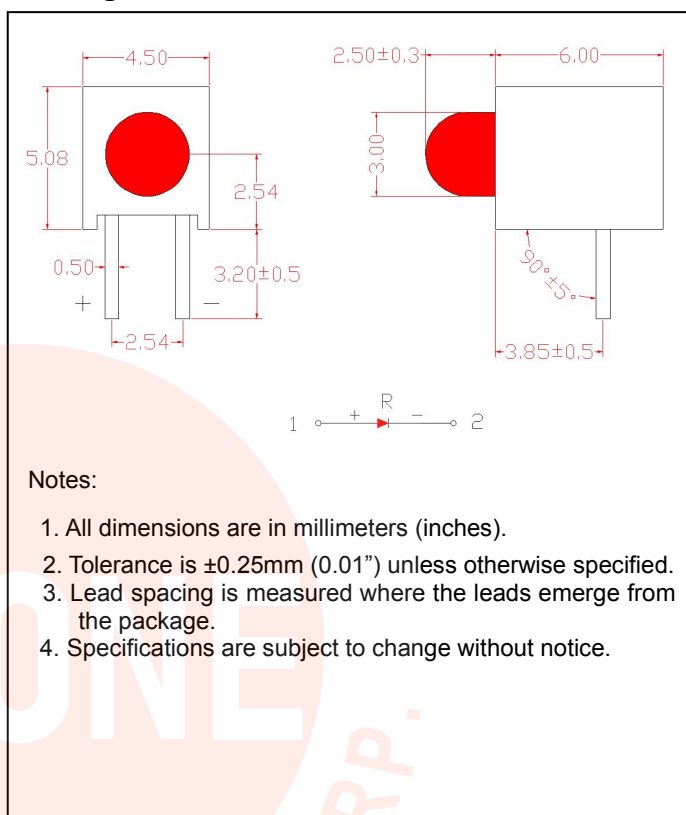
### ● Features:

1. Chip material: AlGaAs (Red)
2. Emitted color : Red
3. Lens Appearance : Red Diffused
4. Designed for ease in circuit board assembly.
5. Black case enhance contrast ratio.
6. Solid state light source.
7. Reliable and rugged.
8. 3mm diameter package.
9. This product don't contained restriction substance, compliance ROHS standard.

### ● Applications:

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

### ● Package dimensions



### ● Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Red	Unit
Power Dissipation	Pd	75	mW
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current*1	I <sub>FP</sub>	50	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	Topr	-30°C~80°C	
Storage Temperature	Tstg	-40°C~85°C	
Soldering Temperature	Tsol	260°C (for 5 seconds)	

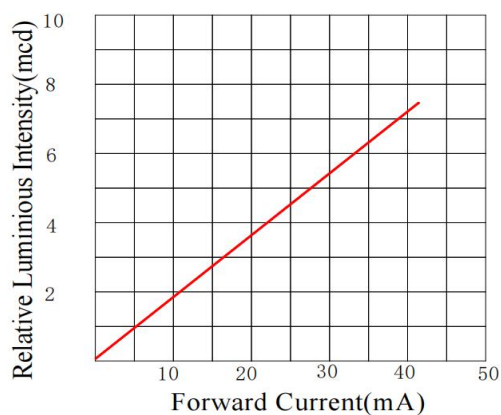
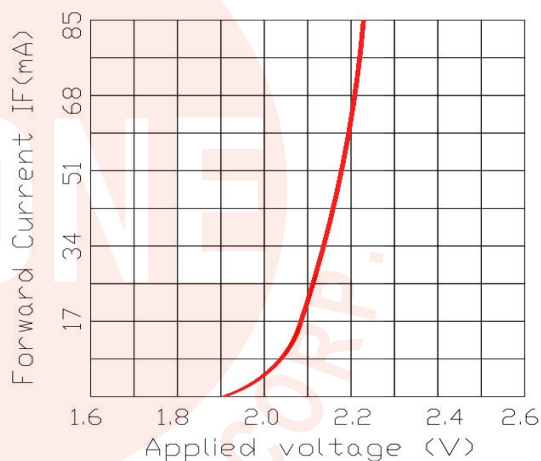
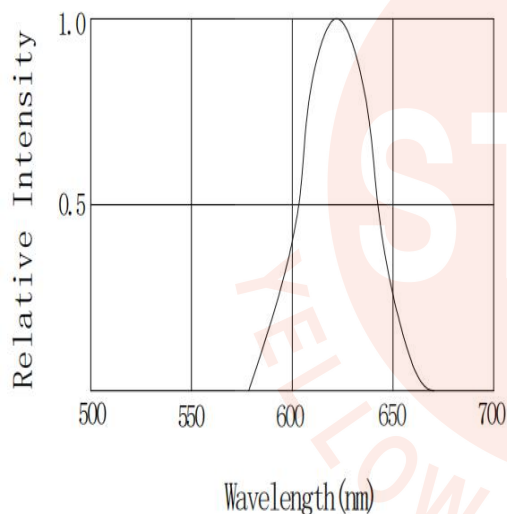
\*1Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width.

● Electrical and optical characteristics(Ta=25°C)

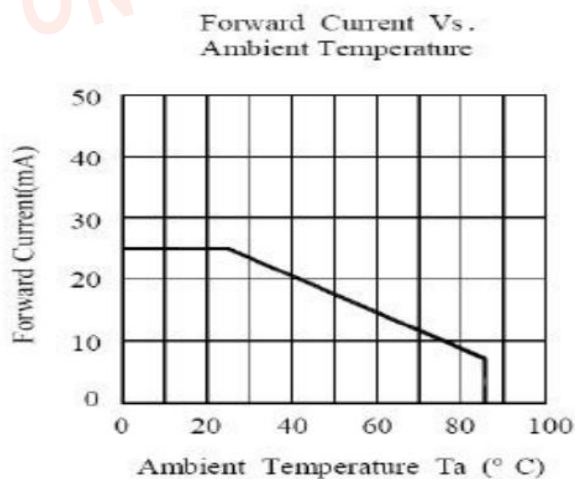
Parameter	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20\text{mA}$	Red	1.8	2.0	2.4	V
Luminous Intensity	$I_v$	$I_F=20\text{mA}$	Red	1	5	10	mcd
Reverse Current	$I_R$	$V_R=5\text{V}$	Red	-	-	10	$\mu\text{A}$
Peak Wave Length	$\lambda_p$	$I_F=20\text{mA}$	Red	-	-	-	nm
Dominant Wave Length	$\lambda_d$	$I_F=20\text{mA}$	Red	630	-	650	nm
Spectral Line Half-width	$\Delta\lambda$	$I_F=20\text{mA}$	Red	-	30	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	Red	-	50	-	deg

● Typical Electro-Optical Characteristics Curves

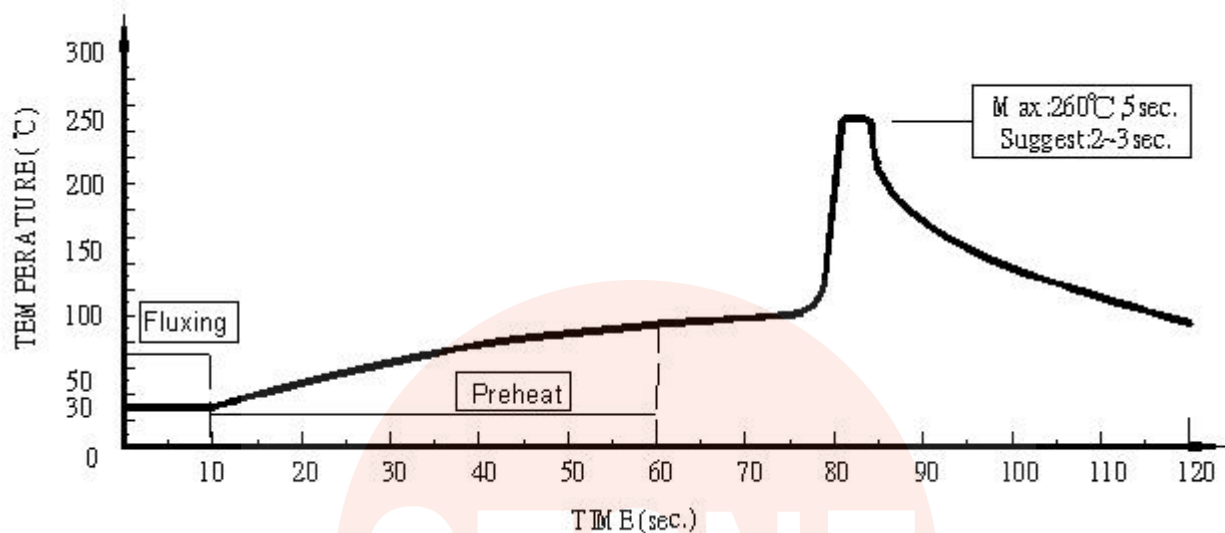
Red



Forward Current Vs Relative luminous Intensity



## ●Dip Soldering



1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature, especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temperature.
4. Avoid rapid cooling during temperature ramp-down process
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

## ●IRON Soldering

A : Max : 350°C Within 3 sec. One time only.

B : The products of 3mm without flange, welding condition of flat plate PCB Max : 350°C Within 2 sec. One time only

