

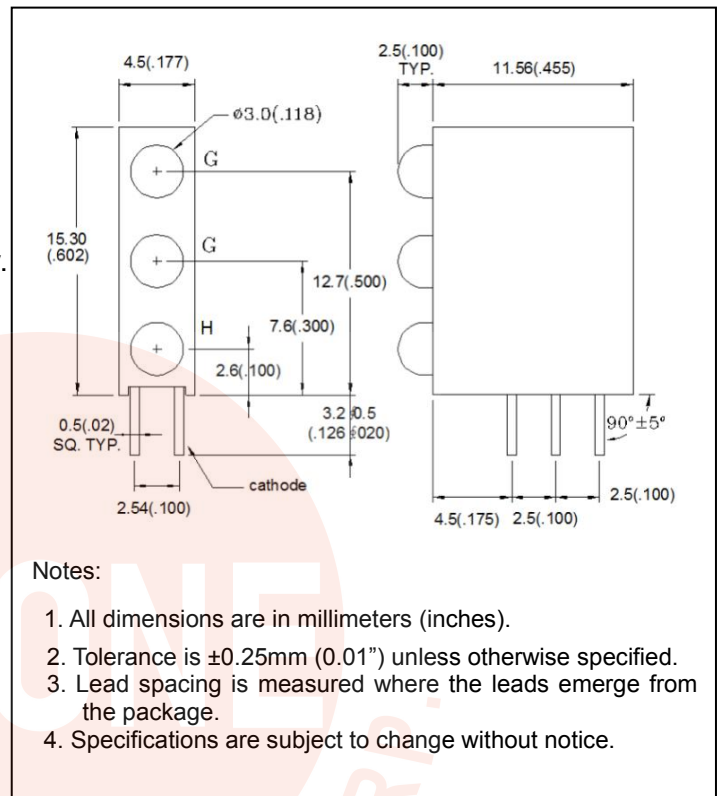
● **Features:**

1. Chip material: GaP/GaP(Green)
and GaP/GaP (Red)
2. Emitted color : Green and Red
3. Lens Appearance :Green Diffused
and 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.
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($T_a=25^\circ\text{C}$)**

Parameter	Symbol	Green	Red	Unit
Power Dissipation	P_d	80	80	mW
Forward Current	I_F	30	30	mA
Peak Forward Current* ¹	I_{FP}	150	150	mA
Reverse Voltage	V_R	5		V
Operating Temperature	T_{opr}	$-40^\circ\text{C} \sim 85^\circ\text{C}$		
Storage Temperature	T_{stg}	$-40^\circ\text{C} \sim 100^\circ\text{C}$		
Soldering Temperature	T_{sol}	260°C max (for 5 seconds)		
Hand Soldering Temperature	T_{sol}	350°C max(for 3 seconds)		

*¹Condition for I_{FP} 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	$I_F=20\text{mA}$	Green Red	-	2.2 2.3	2.6 2.6	V
Luminous Intensity	I_v	$I_F=20\text{mA}$	Green Red	-	35 2.5	-	mcd
Reverse Current	I_R	$V_R=5\text{V}$	Green ed	-	-	100	μA
Peak Wave Length	λ_p	$I_F=20\text{mA}$	Green Red	-	568 700	-	nm
Dominant Wave Length	λ_d	$I_F=20\text{mA}$	Green Red	560 -	- 650	576 -	nm
Spectral Line Half-width	$\Delta\lambda$	$I_F=20\text{mA}$	Green Red	-	30 100	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	Green Red	-	45	-	deg

● Typical Electro-Optical Characteristics Curves

Fig.1 Relative intensity vs. Wavelength

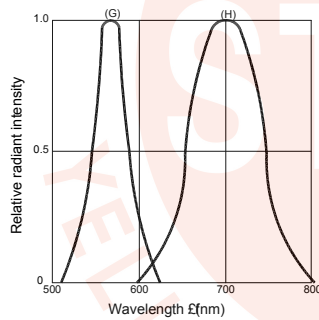


Fig.2 Forward current derating curve vs. Ambient temperature

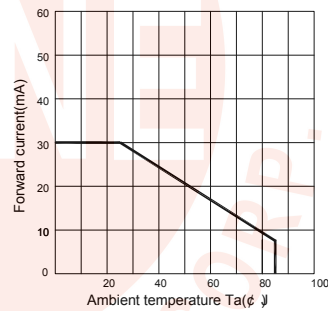


Fig.3 Forward current vs. Forward voltage

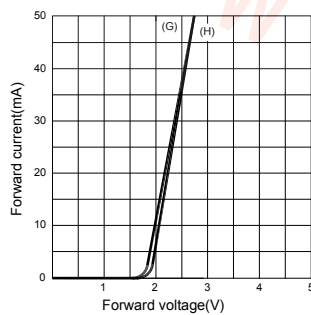


Fig.4 Relative luminous intensity vs. Ambient temperature

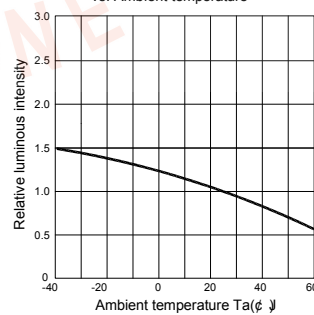


Fig.5 Relative luminous intensity vs. Forward current

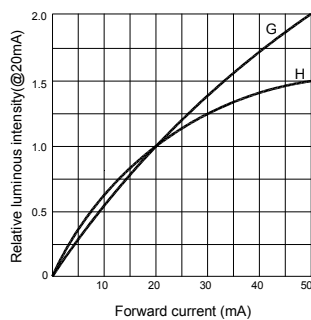
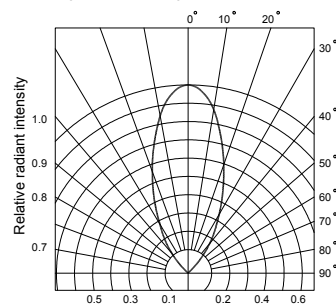
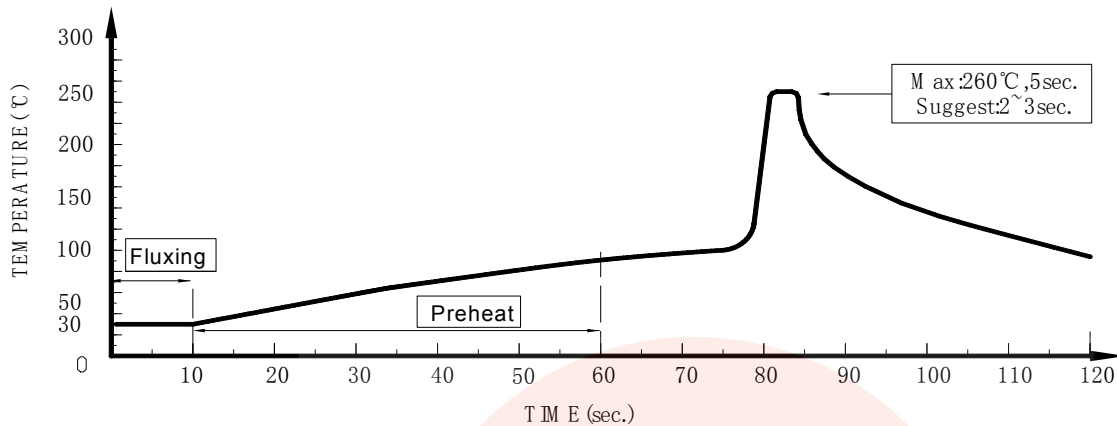


Fig.6 Radiation diagram



● 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