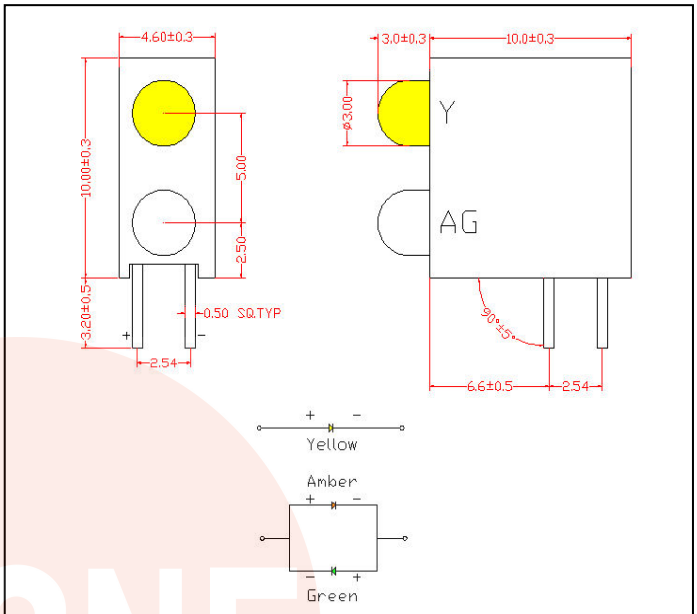
● Features:

1. Chip material: GaAsP/Gap(Yellow), and GaAsP/GaP(Amber) and GaP/GaP(Green)
2. Emitted color : Yellow and Orange and Green
3. Lens Appearance : Yellow Diffused, and White 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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (0.01") unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

● Absolute Maximum Ratings(Ta=25℃)

Parameter	Symbol	Yellow	Amber	Green	Unit
Power Dissipation	Pd	80	80	80	mW
Forward Current	I_F	30	30	30	mA
Peak Forward Current*1	I_{FP}	100	150	150	mA
Reverse Voltage	V_R	1	1	5	V
Operating Temperature	Topr	-40℃~80℃			
Storage Temperature	Tstg	-40℃~85℃			
Soldering Temperature	Tsol	260℃(for 5 seconds)			

*1Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

● Electrical and optical characteristics(Ta=25℃)

Parameter	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	Yellow Amber Green	1.8 1.8 1.8	- - -	2.4 2.5 2.6	V
Luminous Intensity	Iv	I_F=20mA	Yellow Amber Green	20 - -	- 20 20	80 - -	mcd
Reverse Current	I_R	V_R=5V	Yellow Amber Green	-	-	10	μA
Peak Wave Length	λ p	I_F=20mA	Yellow Amber Green	-	590 610 570	-	nm
Dominant Wave Length	λ d	I_F=20mA	Yellow Amber Green	585 600 565	- - -	595 615 575	nm
Spectral Line Half-width	Δ λ	I_F=20mA	Yellow Amber Green	- -	35 35 30	- -	nm
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	Yellow Amber Green	- -	40 50 50	- -	deg

● Typical Electro-Optical Characteristics Curves

Yellow

Fig.1 Relative intensity vs. Wavelength

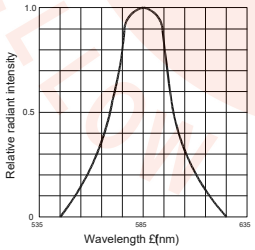


Fig.2 Forward current derating curve vs. Ambient temperature

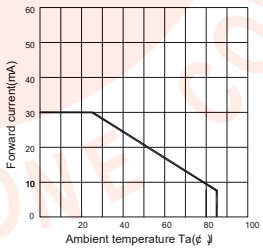


Fig.3 Forward current vs. Forward voltage

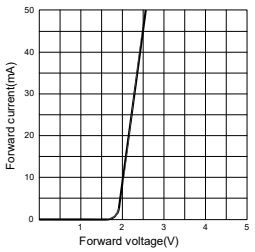


Fig.4 Relative luminous intensity vs. Ambient temperature

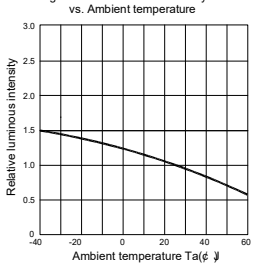


Fig.5 Relative luminous intensity vs. Forward current

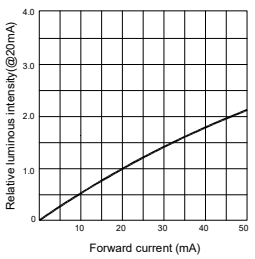
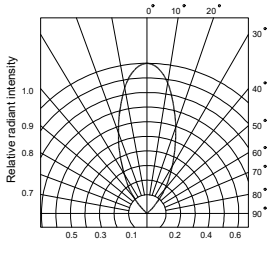


Fig.6 Radiation diagram



Amber and Green

Fig.1 Relative intensity vs. Wavelength

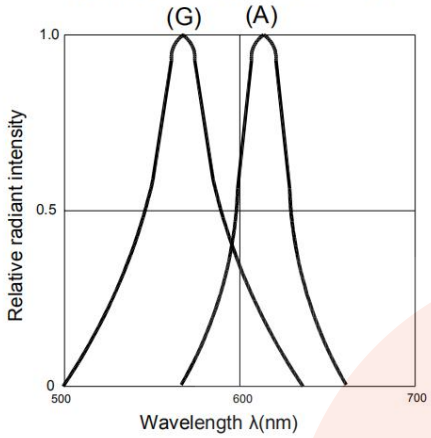


Fig.2 Forward current derating curve vs. Ambient temperature

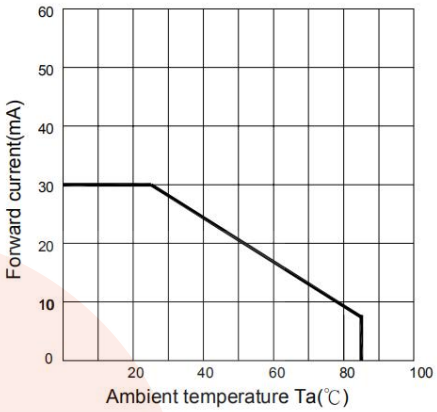


Fig.3 Forward current vs. Forward voltage

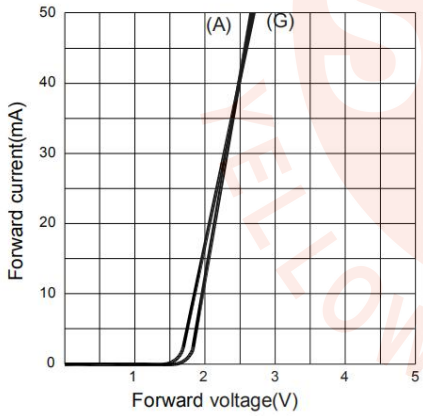


Fig.4 Relative luminous intensity vs. Ambient temperature

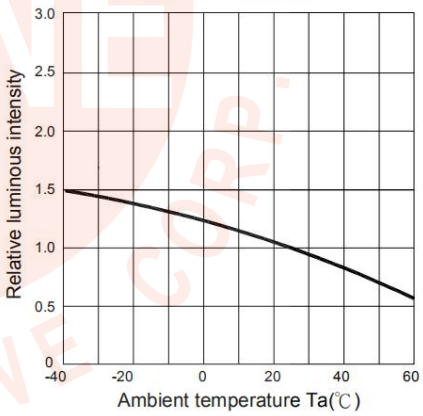


Fig.5 Relative luminous intensity vs. Forward current

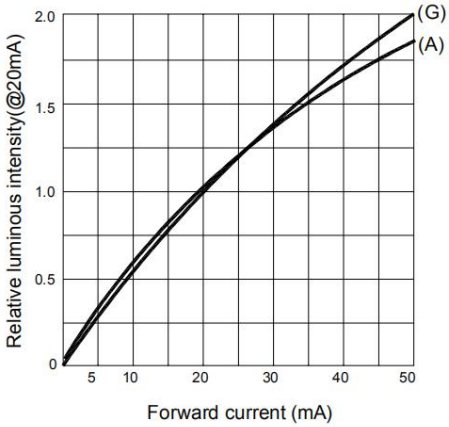
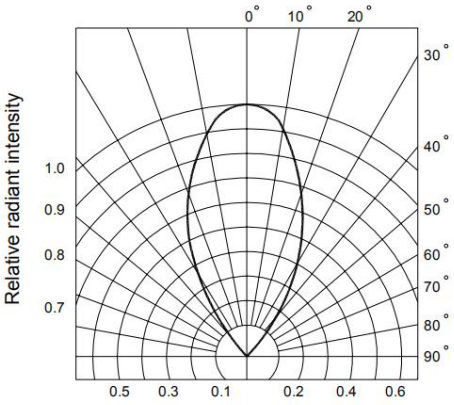
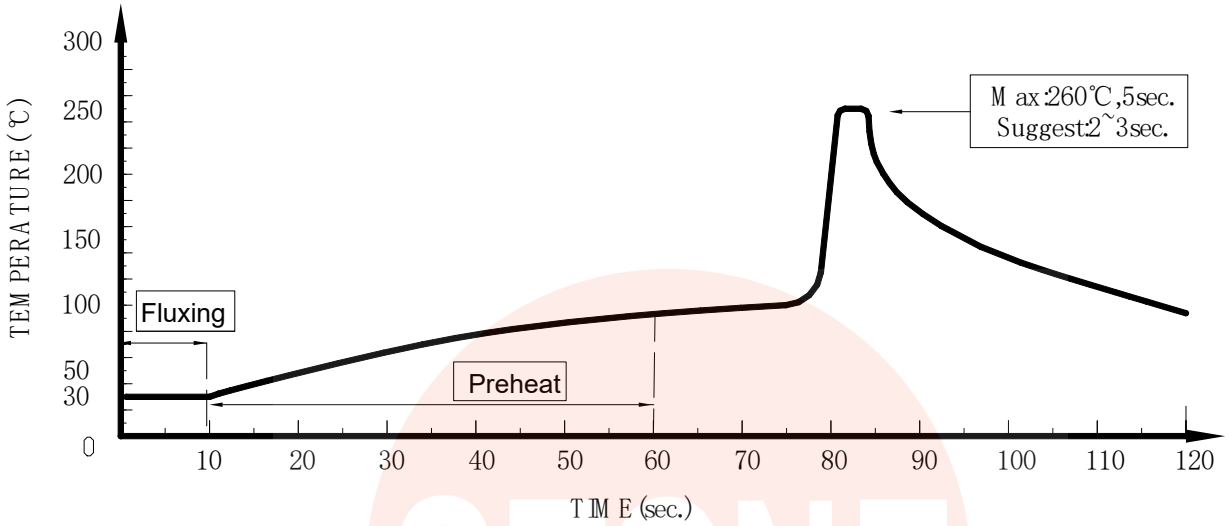


Fig.6 Radiation diagram



●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 temerature.
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℃ Within 3 sec. One time only.

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