

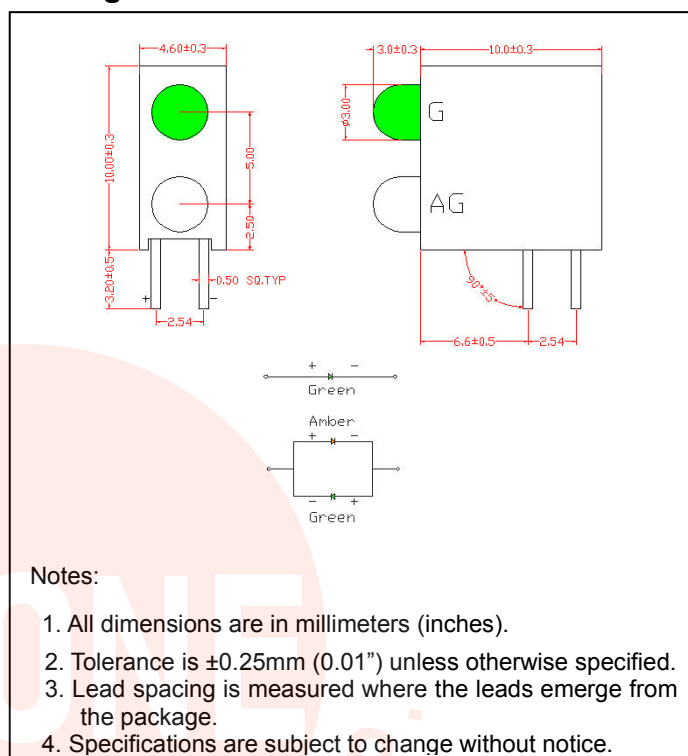
● Features:

1. Chip material: GaP/GaP (Green),
and GaAsP/GaP(Amber)
2. Emitted color : Green and Amber
3. Lens Appearance : Green Diffusedand
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



● Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Green	Amber	Unit
Power Dissipation	Pd	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	Topr	-40°C~80°C		
Storage Temperature	Tstg	-40°C~85°C		
Soldering Temperature	Tsol	260°C(for 5 seconds)		

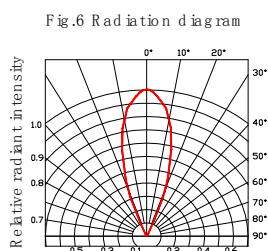
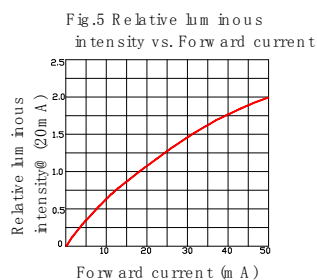
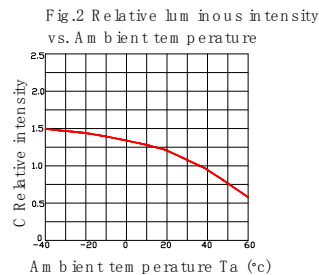
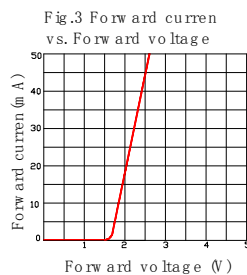
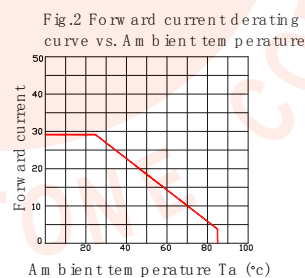
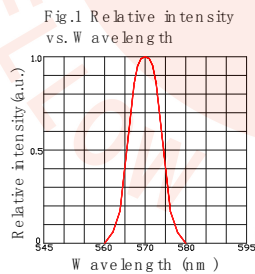
*1Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

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

Parameter	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=20mA$	Green	1.8	-	2.4	V
			Amber	1.8	-	2.4	
			Green	1.8	-	2.4	
Luminous Intensity	I_v	$I_F=20mA$	Green	40	-	80	mcd
			Amber	-	20	-	
			Green	-	20	-	
Reverse Current	I_R	$V_R=5V$	Green	-	-	10	μA
			Amber	-	-	10	
			Green	-	-	10	
Peak Wave Length	λ_p	$I_F=20mA$	Green	-	570	-	nm
			Amber	-	610	-	
			Green	-	570	-	
Dominant Wave Length	λ_d	$I_F=20mA$	Green	565	-	575	nm
			Amber	600	-	615	
			Green	565	-	575	
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	Green	-	30	-	nm
			Amber	-	30	-	
			Green	-	30	-	
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	Green	-	35	-	deg
			Amber	-	50	-	
			Green	-	50	-	

● Typical Electro-Optical Characteristics Curves

GREEN



AMBER/GREEN

Fig.1 Relative intensity vs. Wavelength

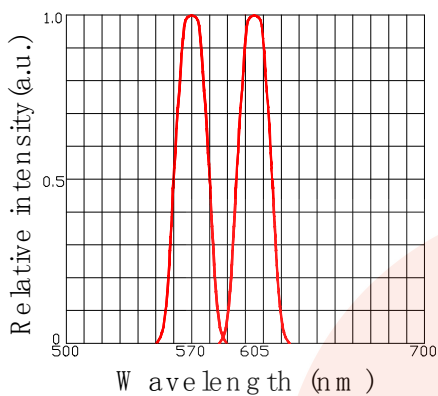


Fig.2 Forward current derating curve vs. Ambient temperature

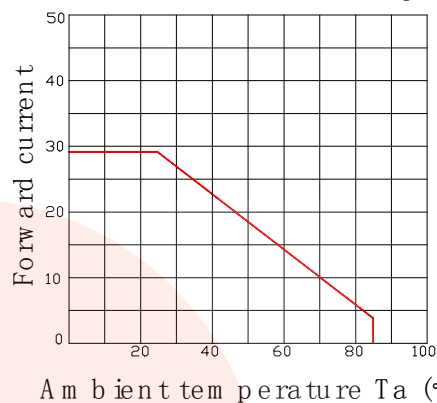


Fig.3 Forward current vs. Forward voltage

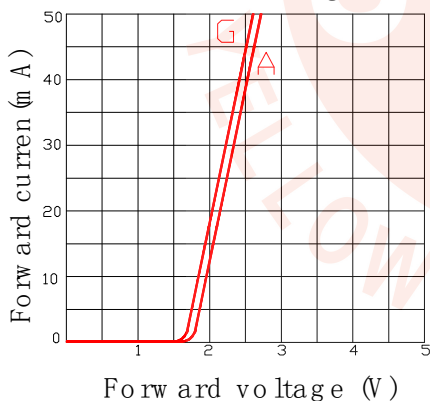


Fig.2 Relative luminous intensity vs. Ambient temperature

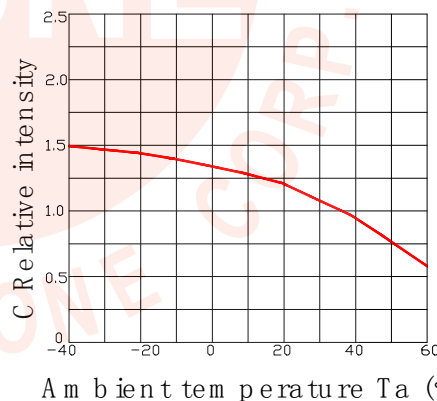


Fig.5 Relative luminous intensity vs. Forward current

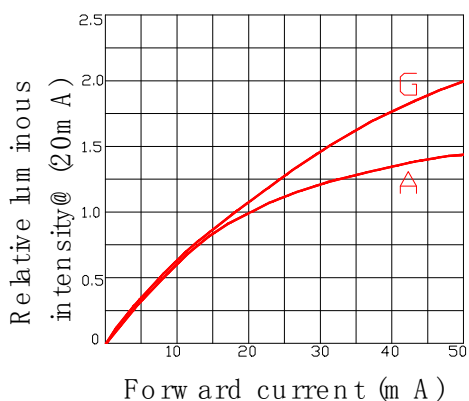
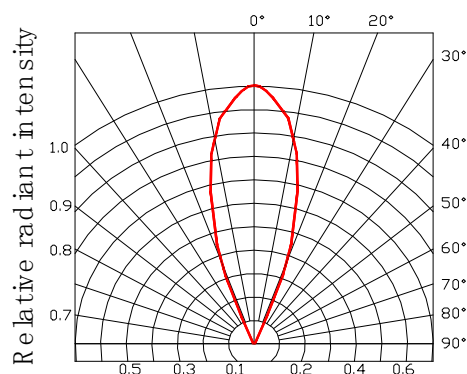
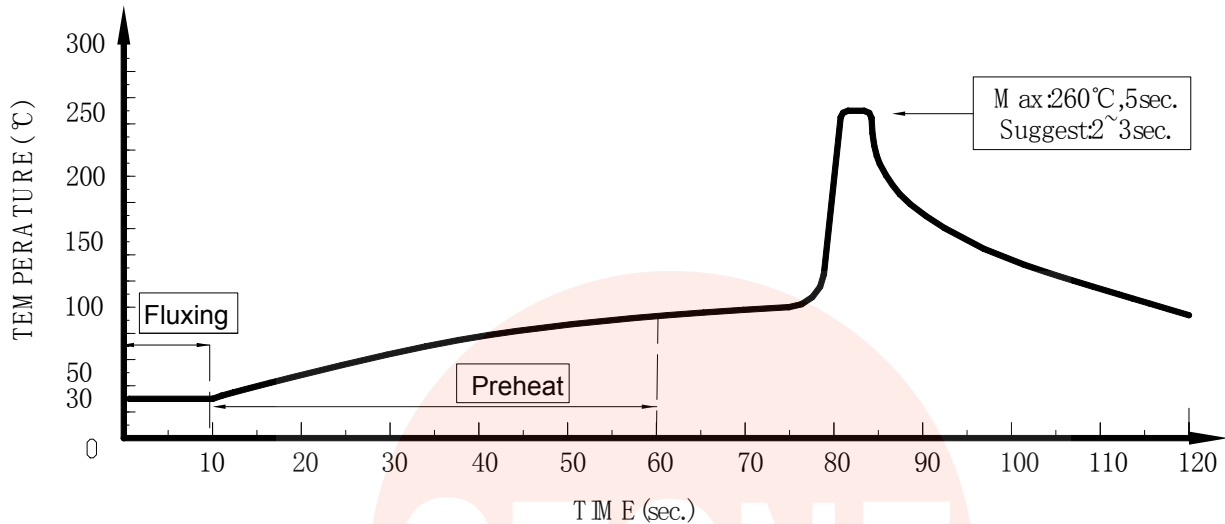


Fig.6 Radiation diagram



●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

●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

