

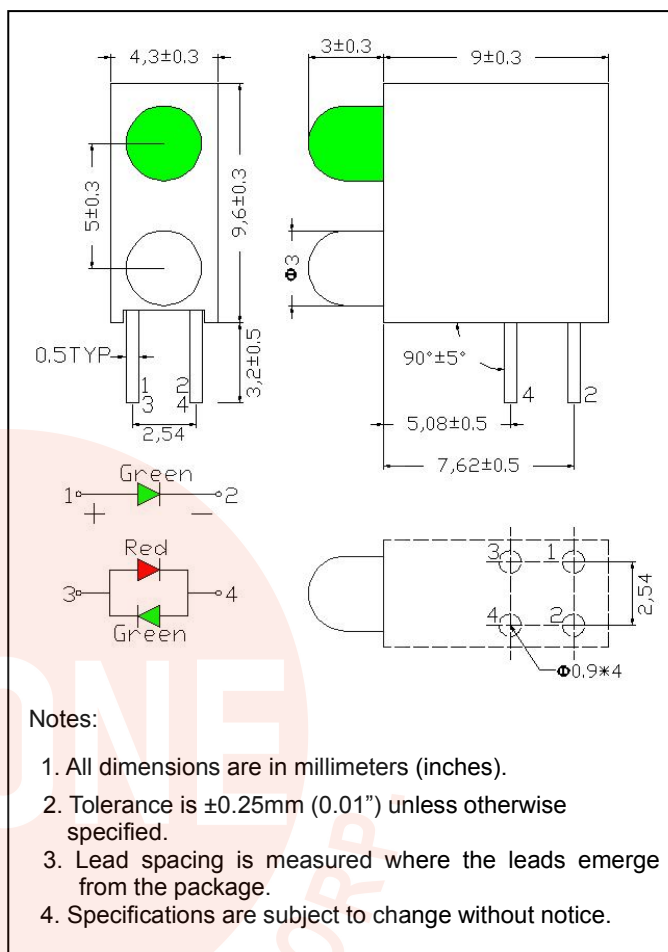
● Features:

1. Chip material: Gap(Green) and AlInGap(Red)/AlInGap(Green)
2. Emitted color : Green and Red/Green
3. Lens Appearance :Green 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. 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	Red	Green	Unit
Power Dissipation	Pd	75	70	80	mW
Forward Current	I _F	30	30	30	mA
Peak Forward Current*1	I _{FP}	50	100	100	mA
Reverse Voltage	V _R	5	1		V
Operating Temperature	Topr	-30°C~80°C	-40°C~85°C		
Storage Temperature	Tstg	-40°C~85°C	-40°C~85°C		
Soldering Temperature	Tsol	260°C max (for 5 seconds)			
Hand Soldering Temperature	Tsol	350°C max(for 3 seconds)			

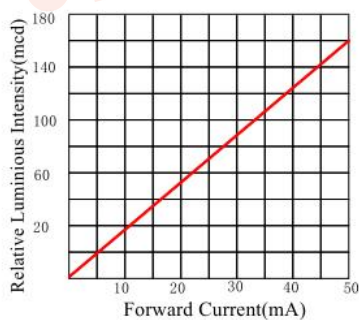
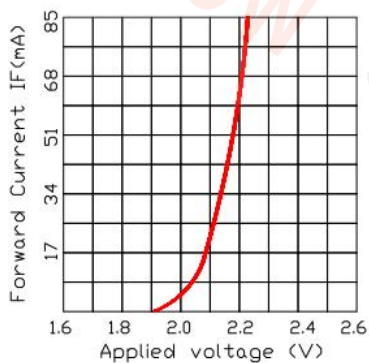
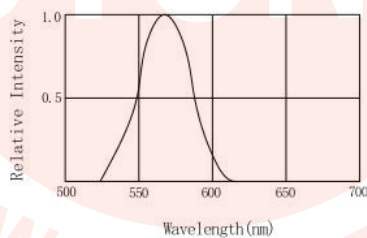
*1Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

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

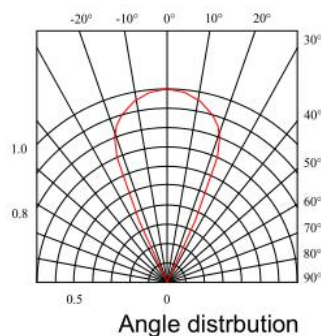
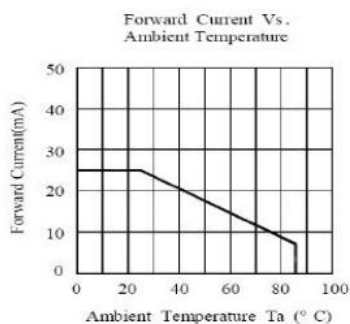
Parameter	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=20\text{mA}$	Green Red Green	1.8 1.8 1.8	2.2 2.1 2.1	2.6 2.4 2.4	V
Luminous Intensity	I_v	$I_F=20\text{mA}$	Green Red Green	40 20 20	50 40 40	80 80 80	mcd
Reverse Current	I_R	$V_R=5\text{V}$	Green Red Green	- - -	- - -	10 10 10	μA
Peak Wave Length	λ_p	$I_F=20\text{mA}$	Green Red Green	- - -	- 644 570	- - -	nm
Dominant Wave Length	λ_d	$I_F=20\text{mA}$	Green Red Green	565 635 568	570 640 571	575 645 574	nm
Spectral Line Half-width	$\Delta\lambda$	$I_F=20\text{mA}$	Green Red Green	- - -	30 30 30	- - -	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	Green Red Green	- - -	50 80 80	- - -	deg

● Typical electro-optical characteristics curves

Green



Forward Current Vs Relative luminous Intensity

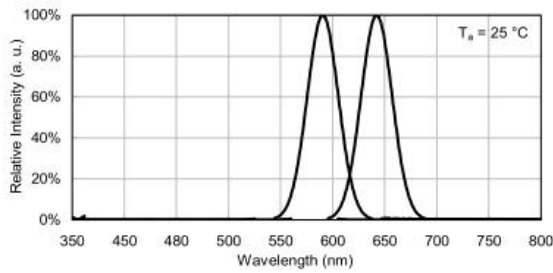


Angle distribution

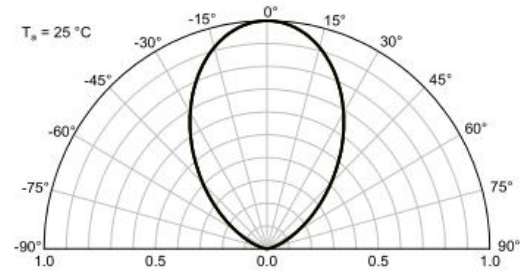
EG (Red and Green)

TECHNICAL DATA

RELATIVE INTENSITY vs. WAVELENGTH

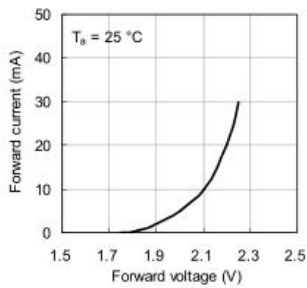


SPATIAL DISTRIBUTION

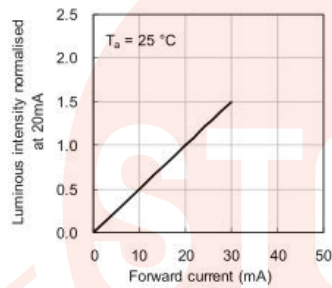


RED

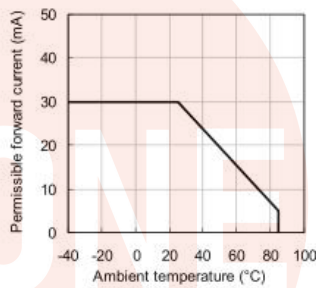
Forward Current vs. Forward Voltage



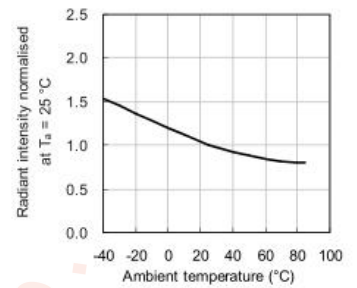
Luminous Intensity vs. Forward Current



Forward Current Derating Curve

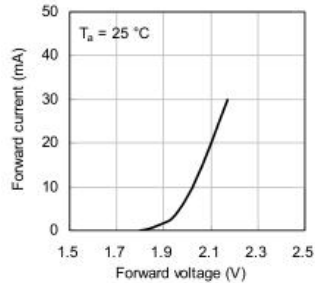


Luminous Intensity vs. Ambient Temperature

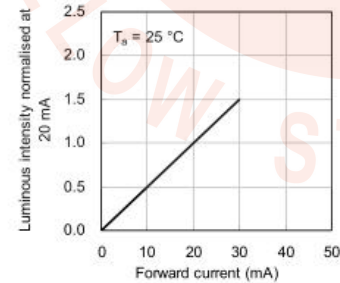


GREEN

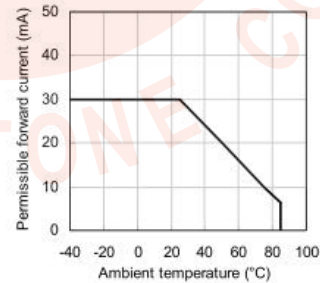
Forward Current vs. Forward Voltage



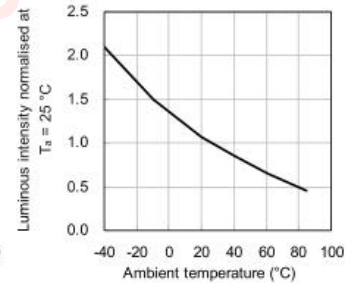
Luminous Intensity vs. Forward Current



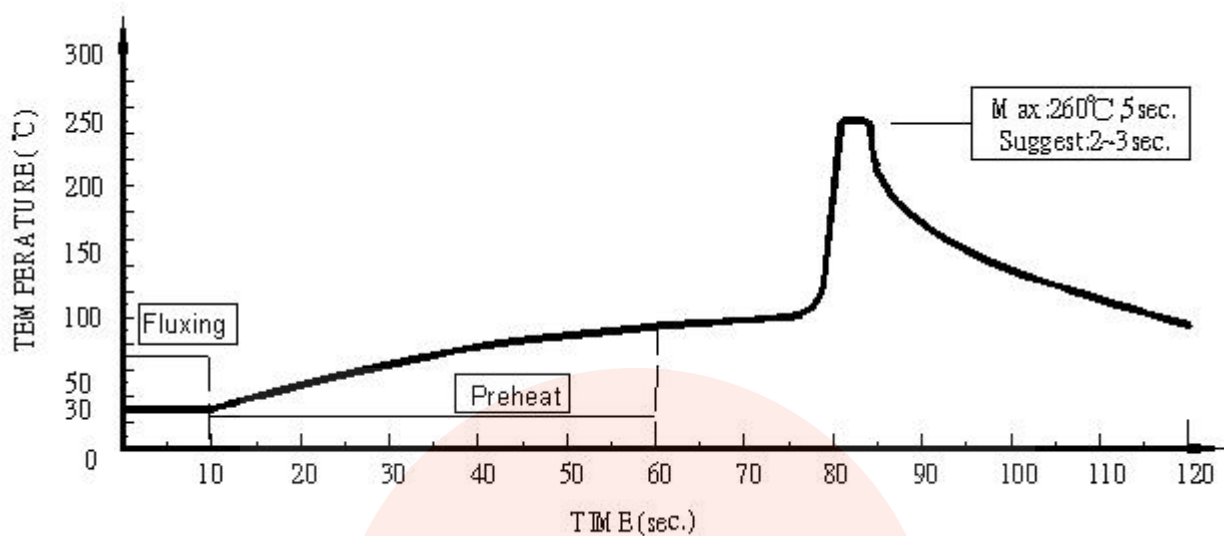
Forward Current Derating Curve



Luminous Intensity vs. Ambient Temperature



● 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

