

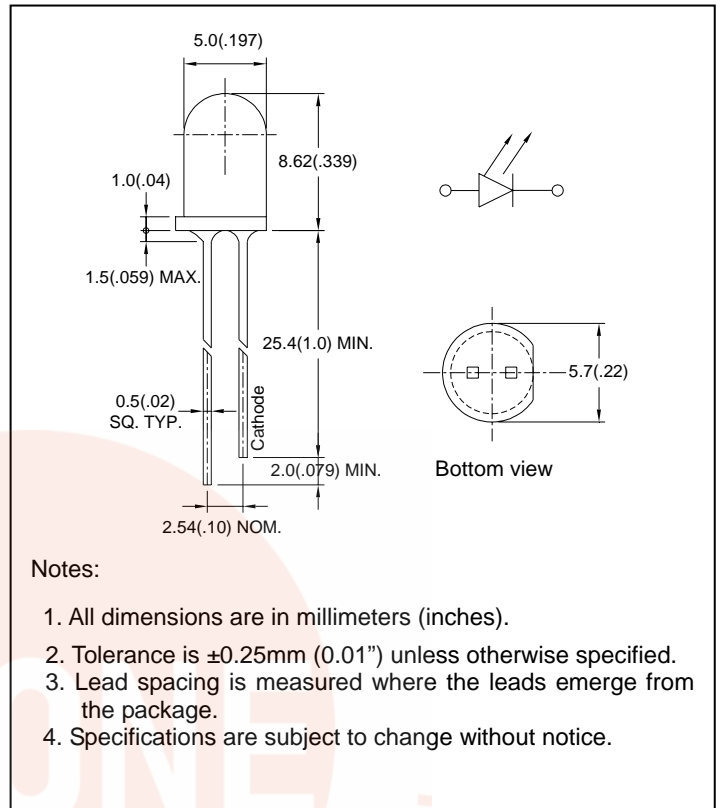
● **Features:**

1. Chip material: AlGaAs /GaAs
2. Emitted color : Super Red
3. Lens Appearance : Water Clear
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. Board or panel.
7. Low current requirement.
8. 5mm 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	Rating	Unit
Power Dissipation	Pd	80	mW
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current	I <sub>FP</sub>	150	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	Topr	-40°C~85°C	
Storage Temperature	Tstg	-40°C~100°C	
Soldering Temperature	Tsol	260°C max (for 5 seconds)	
Hand Soldering Temperature	Tsol	350°C max(for 3 seconds )	

\*1 Condition 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	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20mA$	-	1.8	2.6	V
Luminous Intensity	$I_v$	$I_F=20mA$	-	400	-	mcd
Reverse Current	$I_R$	$V_R=5V$	-	-	100	$\mu A$
Peak Wave Length	$\lambda_p$	$I_F=20mA$	-	660	-	nm
Dominant Wave Length	$\lambda_d$	$I_F=20mA$	638	-	648	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	-	20	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	-	12	-	deg

● **Typical electro-optical characteristics curves**

Fig.1 Relative intensity vs. Wavelength

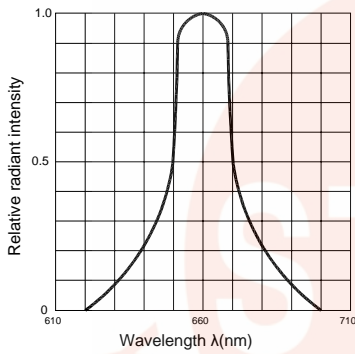


Fig.2 Forward current derating curve vs. Ambient temperature

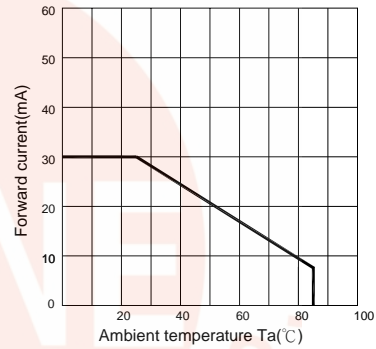


Fig.3 Forward current vs. Forward voltage

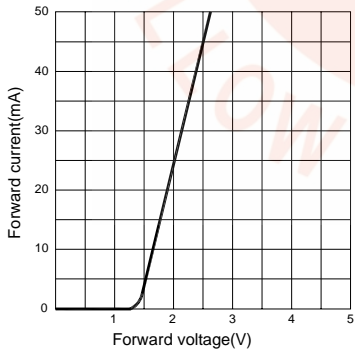


Fig.4 Relative luminous intensity vs. Ambient temperature

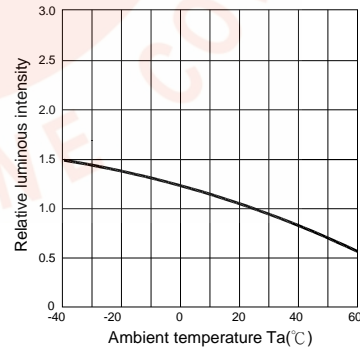


Fig.5 Relative luminous intensity vs. Forward current

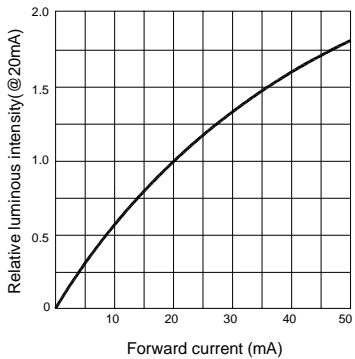
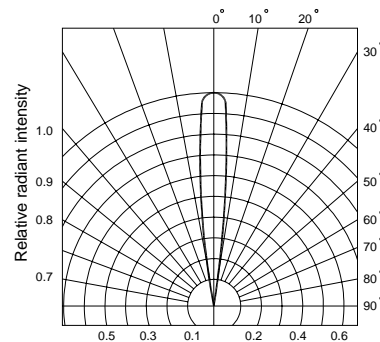


Fig.6 Radiation diagram



● **Bin Limits**

1. Intensity Bin Limits (At  $I_F = 20\text{mA}$ )

<b>Bin Code</b>	<b>Min. (mcd)</b>	<b>Max. (mcd)</b>
P	63	94
Q	94	140
R	140	210
S	210	317
T	317	475
U	475	715
V	715	1070

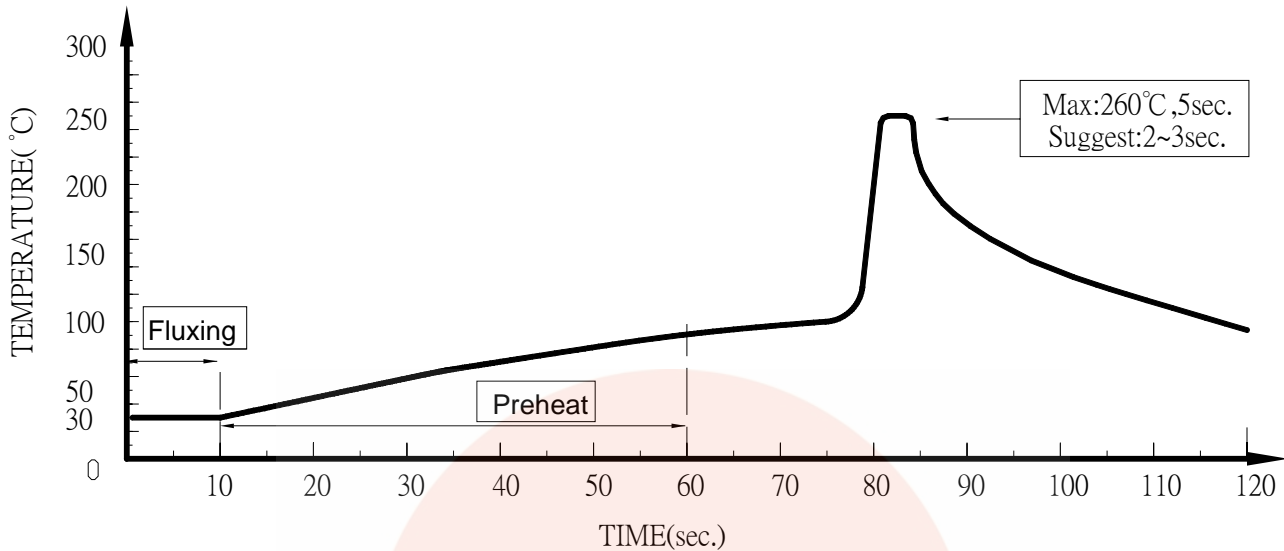
● Bin :  $x$



NOTES: 1. Tolerance of measurement of luminous intensity.

: ±15%

● **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**

