BL-33A-1

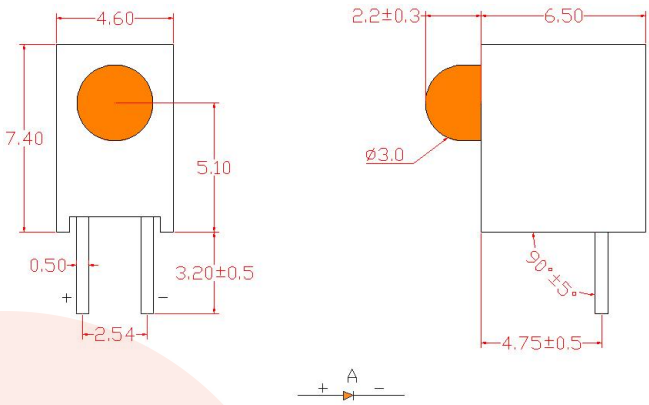
● Features:

1. Chip material: Gap(Orange)
2. Emitted color : Orange
3. Lens Appearance :Orange 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	Orange	Unit
Power Dissipation	Pd	70	mW
Forward Current	I_F	30	mA
Peak Forward Current*[1]	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature	Topr	-30℃~80℃	
Storage Temperature	Tstg	-40℃~85℃	
Soldering Temperature	Tsol	260℃(for 5 seconds)	

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

● Electrical and optical characteristics(Ta=25℃)

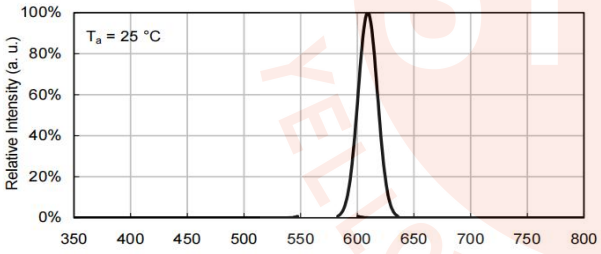
Parameter	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	Orange	1.8		2.6	V
Luminous Intensity	Iv	I_F=20mA	Orange	10		60	mcd
Reverse Current	I_R	V_R=5V	Orange	-	-	10	μA
Peak Wave Length	λ p	I_F=20mA	Orange	-	607	-	nm
Dominant Wave Length	λ d	I_F=20mA	Orange	600	605	610	nm
Spectral Line Half-width	Δ λ	I_F=20mA	Orange	-	30	-	nm
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	Orange	-	45	-	deg

● Typical Electro-Optical Characteristics Curves

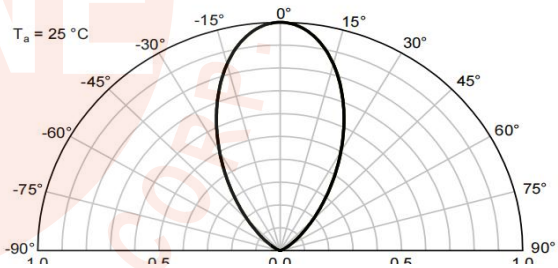
Orange

TECHNICAL DATA

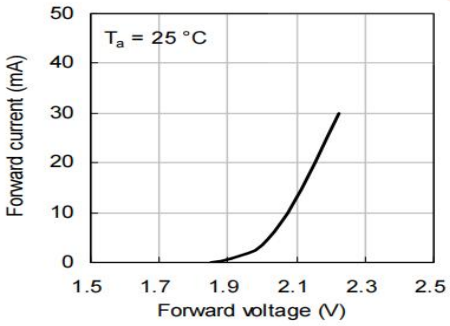
RELATIVE INTENSITY vs. WAVELENGTH



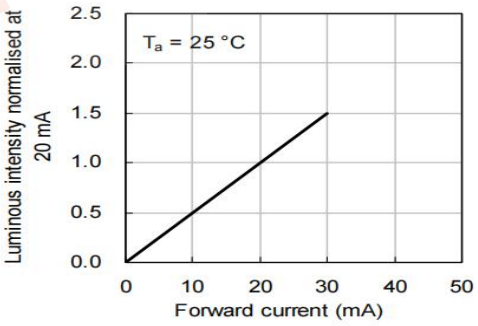
SPATIAL DISTRIBUTION



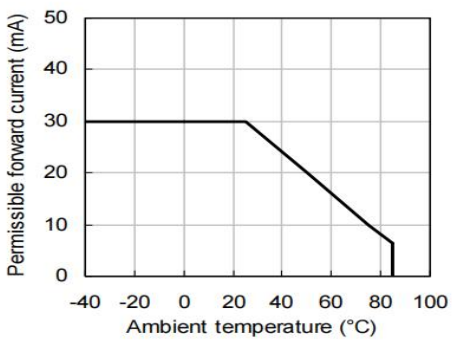
Forward Current vs. Forward Voltage



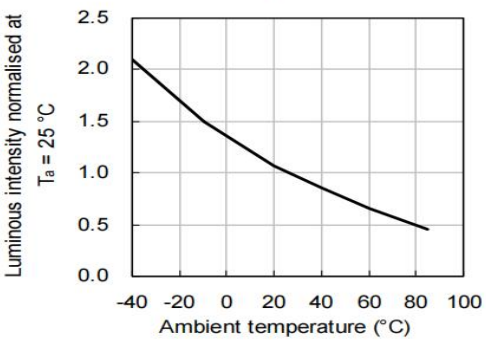
Luminous Intensity vs. Forward Current



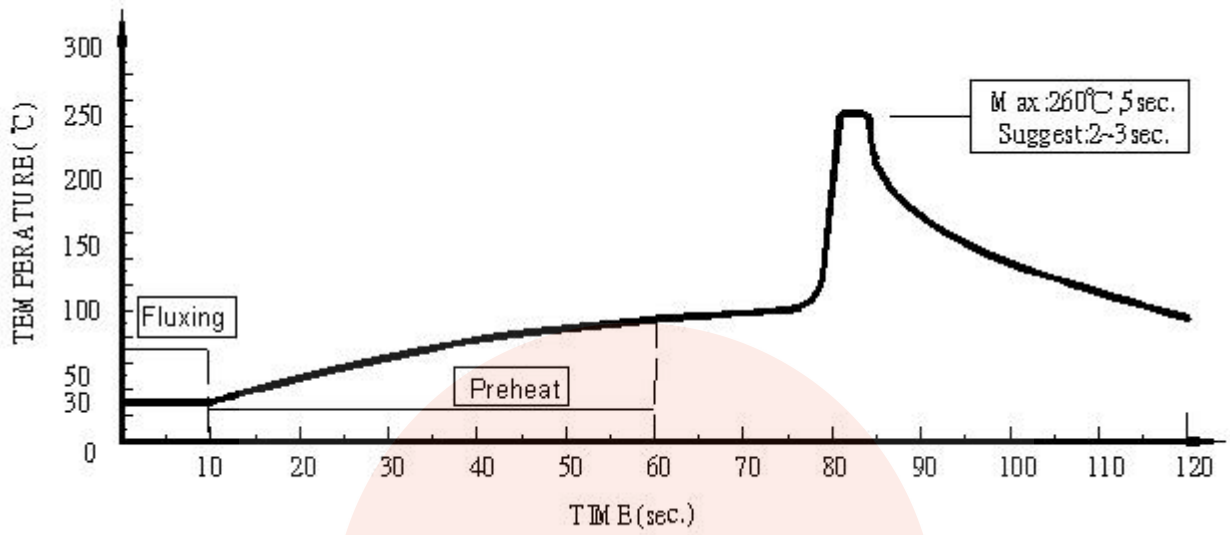
Forward Current Derating Curve



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 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