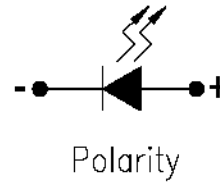
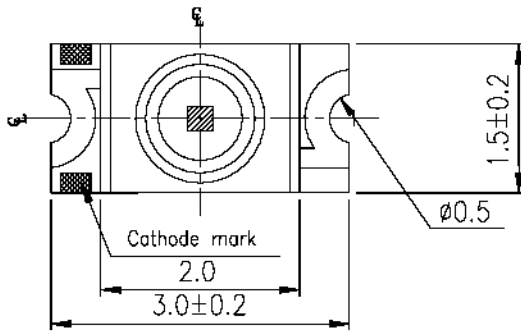


# JGC0118

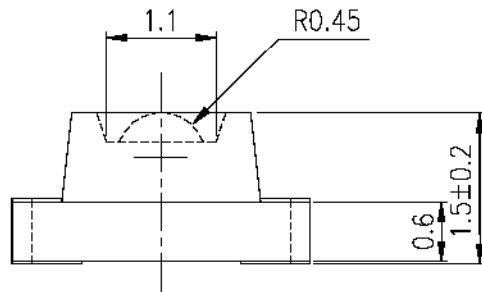
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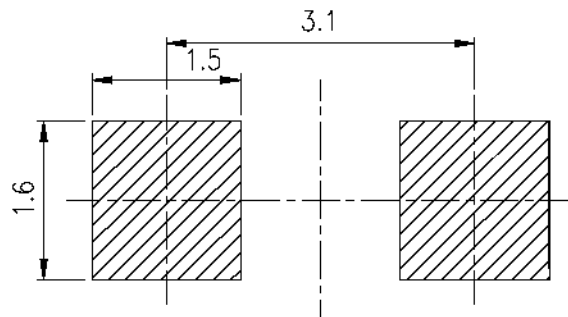
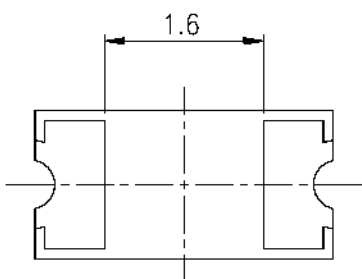
These lamps are of the so-called 1206 size, measuring approximately 1.5 x 3.0 mm.



RoHS Compliant  
Aug 2004



For reflow soldering (propose)



PART NO.	Chip		Lens Color
	Material	Emitted Color	
JGC0118	AlGaInP	Green	Water Clear

\* Specifications subject to change without notice. Dimensions are in mm ±0.1 unless stated otherwise.

**Absolute Maximum Ratings at  $T_a = 25\text{ }^\circ\text{C}$** 

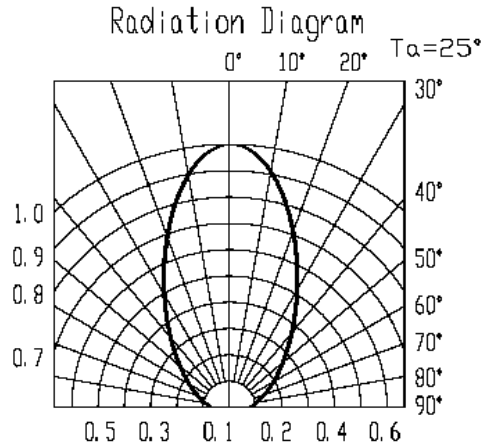
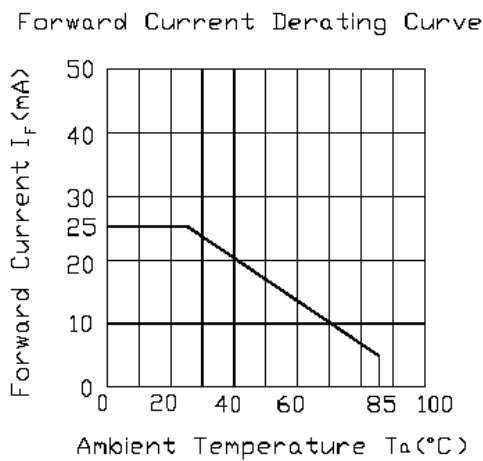
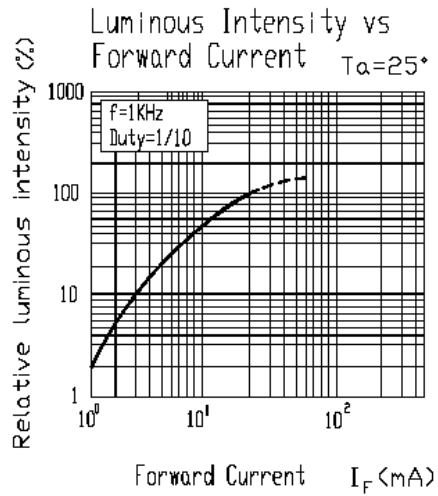
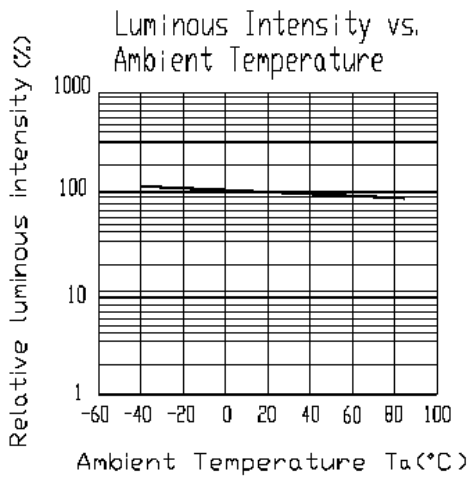
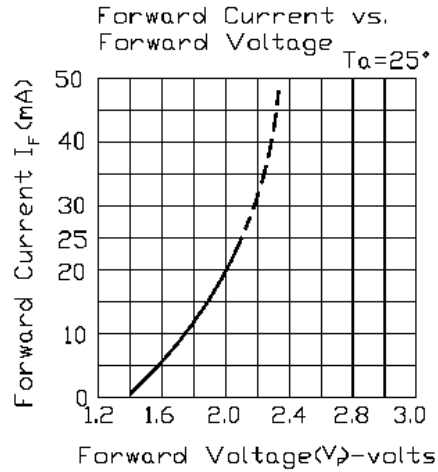
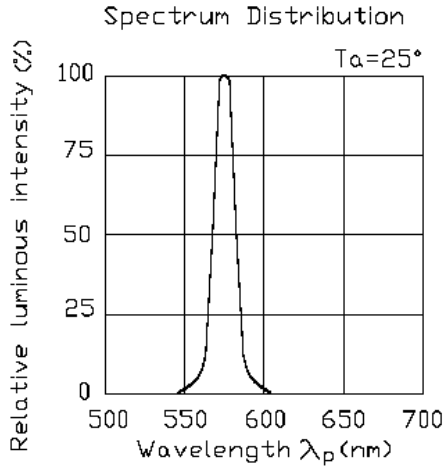
Parameter	Symbol	Rating	Units
Forward Current	$I_F$	25	mA
Reverse Voltage	$V_R$	5	V
Operating Temperature	$T_{opr}$	-40 to +85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +90	$^\circ\text{C}$
Electrostatic Discharge	ESD	2000	V
Power Dissipation	$P_d$	60	mW
Peak Forward Current (Duty 1/10 @ 1KHz)	$I_{FP}$	60	mA
Soldering Temperature	$T_{sol}$	Reflow Soldering: 260 $^\circ\text{C}$ for 10 sec. Hand Soldering: 350 $^\circ\text{C}$ for 3 sec.	

**Electronic Optical Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ )**

Parameter	Symbol	Min.	Typ.	Max.	Units	Condition
Luminous Intensity	$I_V$	29	39	—	mcd	$I_F = 20\text{ mA}$
Viewing Angle	$2\theta_{1/2}$	—	60	—	deg	
Peak Wavelength	$\lambda_p$	—	575	—	nm	
Dominant Wavelength	$\lambda_d$	—	573	—	nm	
Spectrum Radiation Bandwidth	$\Delta\lambda$	—	20	—	nm	
Forward Voltage	$V_F$	1.7	2.0	2.4	V	
Reverse Current	$I_R$	—	—	10	$\mu\text{A}$	$V_R = 5\text{ V}$

\* Specifications subject to change without notice. Dimensions are in mm  $\pm 0.1$  unless stated otherwise.

**Typical Electro-Optical Characteristics Curves:**



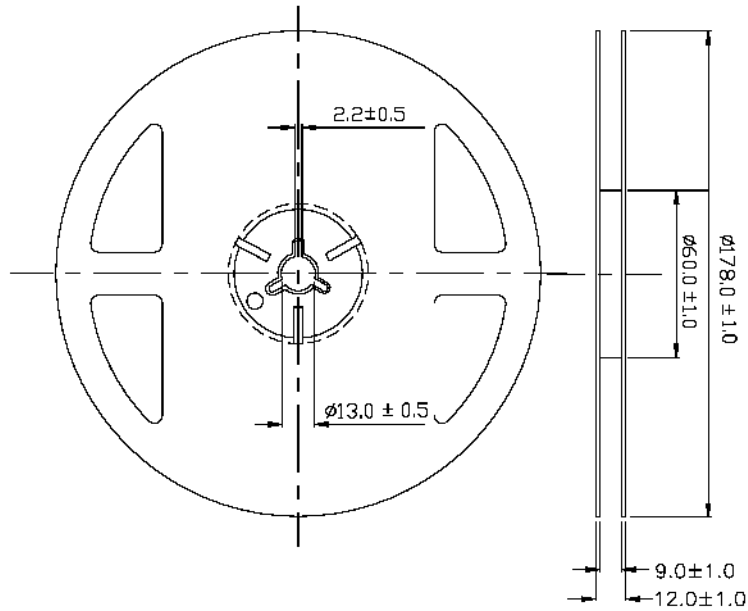
\* Specifications subject to change without notice. Dimensions are in mm  $\pm 0.1$  unless stated otherwise.

# JGC0118

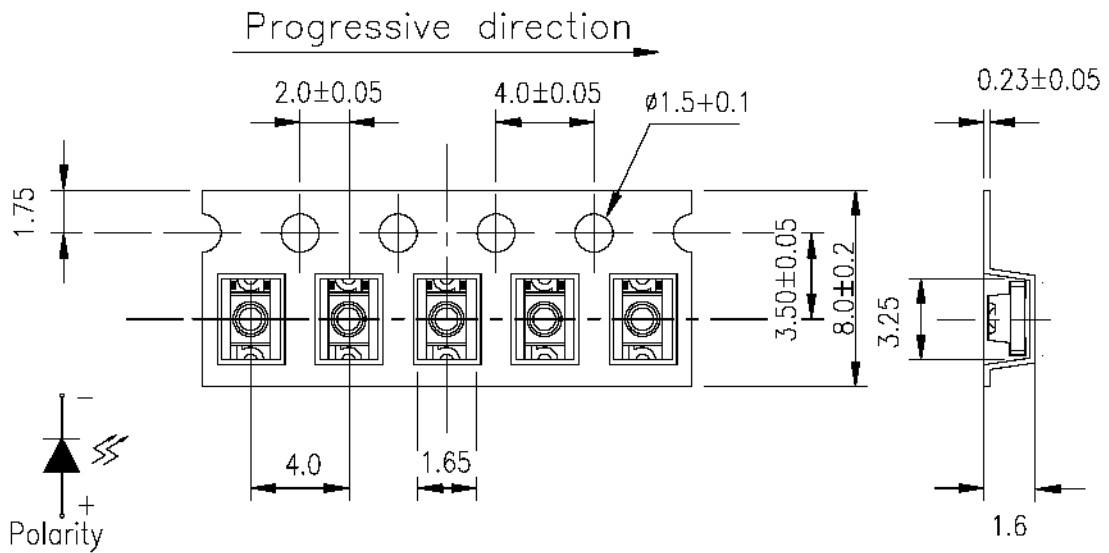
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## Reel Dimensions:



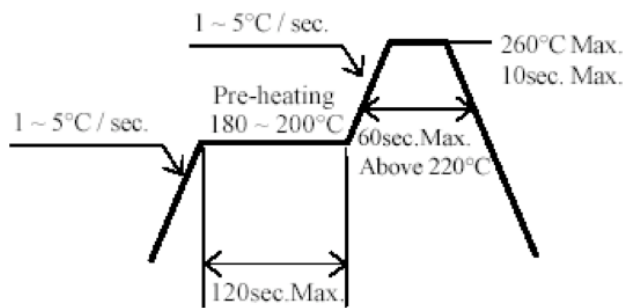
## Carrier Tape Dimensions:



\* Specifications subject to change without notice. Dimensions are in mm  $\pm 0.1$  unless stated otherwise.

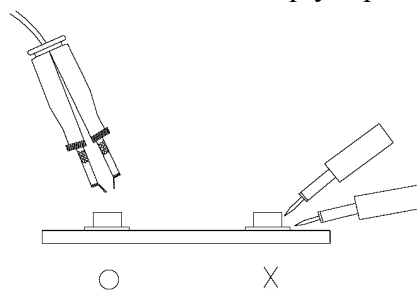
**Precautions for Use**

1. Over-current prevention:  
A series resistor must be used for protection against over-current. Since slight voltage shifts can cause large current changes and possibly damage the LED.
2. Storage:
  - 2.1. Store the LEDs in the sealed moisture proof bag until ready to use.
  - 2.2. The storage conditions should be below 30°C and 90% RH or less.
  - 2.3. Unused portions of LEDs may be stored in moisture proof packages for up to 1 year if kept under 30°C and at no more than 60% RH.
  - 2.4. If there is evidence of moisture absorption or if the LEDs have been stored for a long time, bake the LEDs at 60°C ± 5°C for 24 hours prior to using.
3. Reflow Soldering Conditions:
  - 3.1. Pb-free solder temperature profile (see figure):



- 3.2. Reflow solder no more than two times and must include time interval for the board to cool.
- 3.3. When soldering, do not put stress on the LEDs during heating.
- 3.4. After soldering, do not warp the circuit board.
4. Hand Soldering:
 

Use a low wattage soldering iron (below 25 watts) with a tip temperature no more than 350°C for 3 sec or less on one terminal. Wait at least two seconds before soldering the next terminal to avoid overheating the LED and damaging it.
5. Avoid reworking a soldered LED. It is best to simply replace it with a new part.



\* Specifications subject to change without notice. Dimensions are in mm ±0.1 unless stated otherwise.