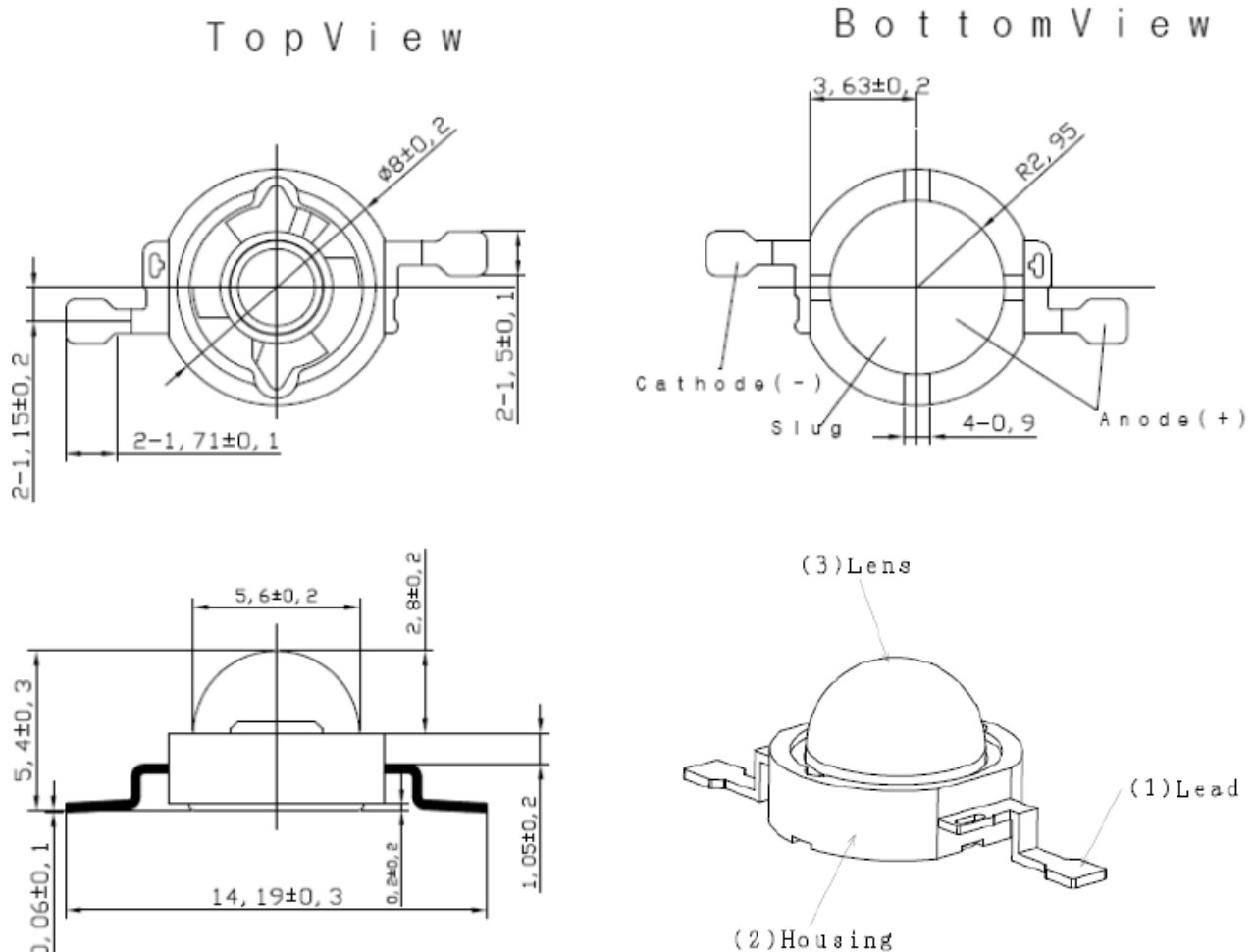


## ■ Package Dimension:



Part NO.	Chip	Emitting Color	Lens Color
AL-01R5IR2WC-A40	AlGaAs	Infrared	Water Clear

### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$ mm (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm(.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. This data-sheet only valid for six months.

**■ Absolute Maximum Ratings at Ta=25°C**

Parameter	Symbol	MAX.	Unit
DC Forward Current	I <sub>F</sub>	700	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature Range	Topr	-40 to +100	°C
Storage Temperature Range	Tstg	-40 to +85	°C
Soldering Temperature (Max.)	Tsol	260 ± 5	seconds

## ■ Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Radiated Output Power	P <sub>O</sub>	---	250	---	mW	I <sub>F</sub> =350mA
Forward Voltage	V <sub>F</sub>	---	1.8	---	V	I <sub>F</sub> =350mA
Dominant Wavelength	λ <sub>p</sub>	840	858	870	nm	I <sub>F</sub> =350mA
Spectral Half-Width	Δλ <sub>1/2</sub>	---	25	---	nm	I <sub>F</sub> =350mA
Viewing Angle	2θ <sub>1/2</sub>	---	140	---	Deg	I <sub>F</sub> =350mA

## ■ Typical Radiation Patterns:

### Typical Representative Spatial Radiation Pattern for IR Lambertian

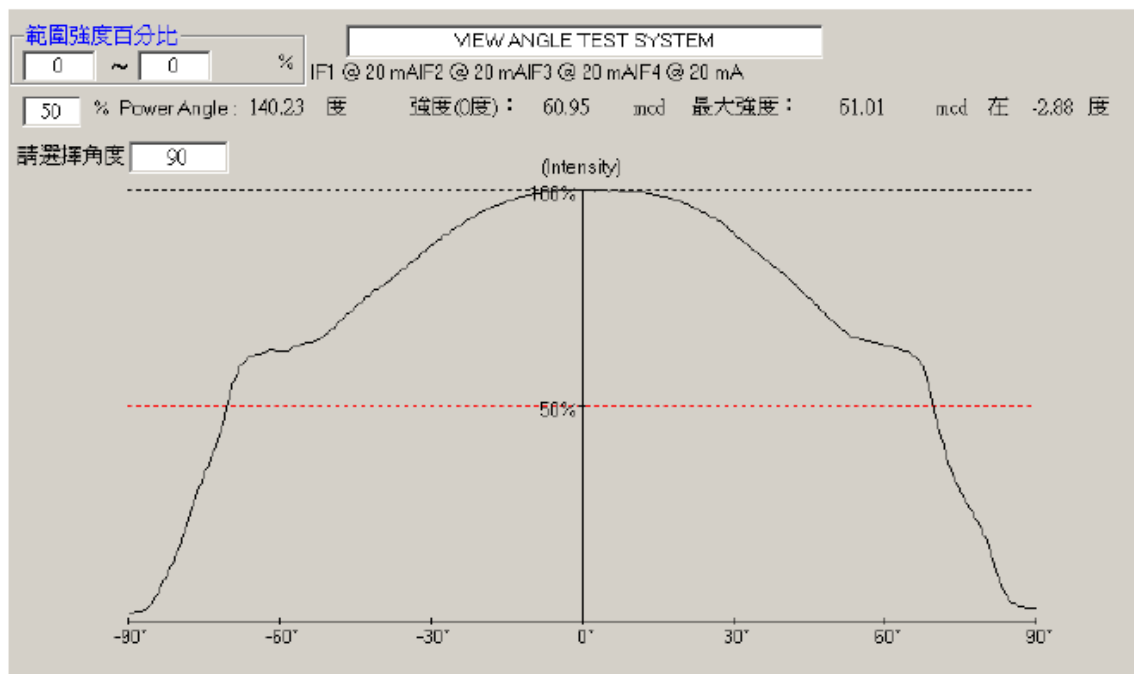


Figure 3. Typical representative spatial radiation pattern for IR lambertian.

### Typical Polar Radiation Pattern for IR Lambertian

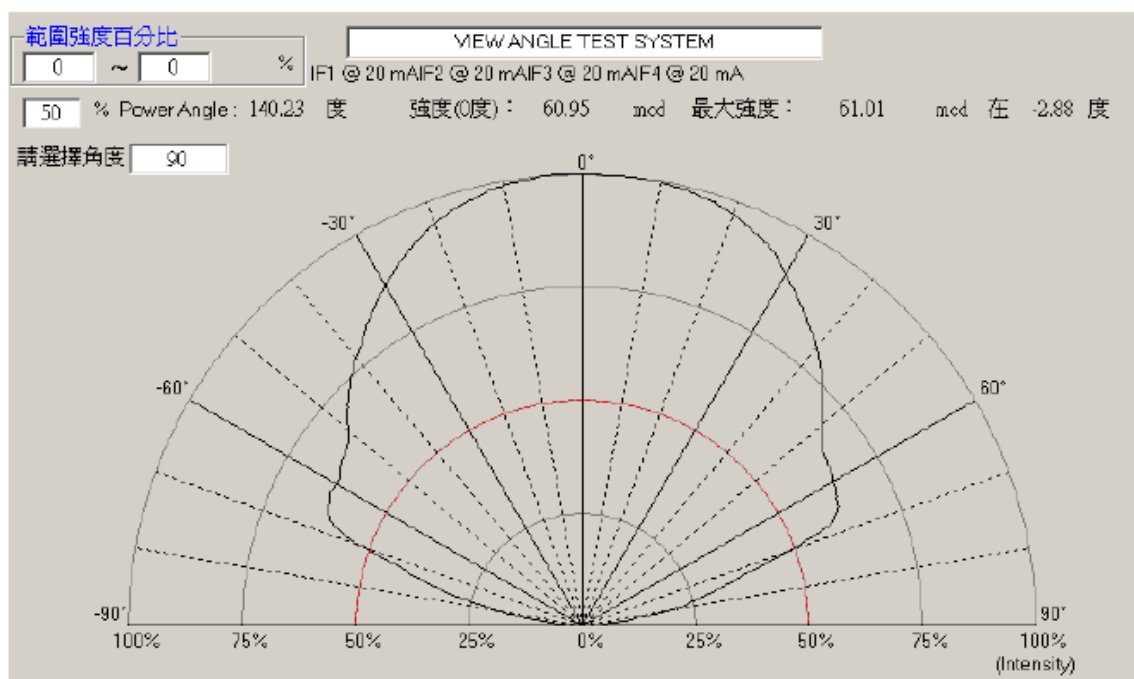
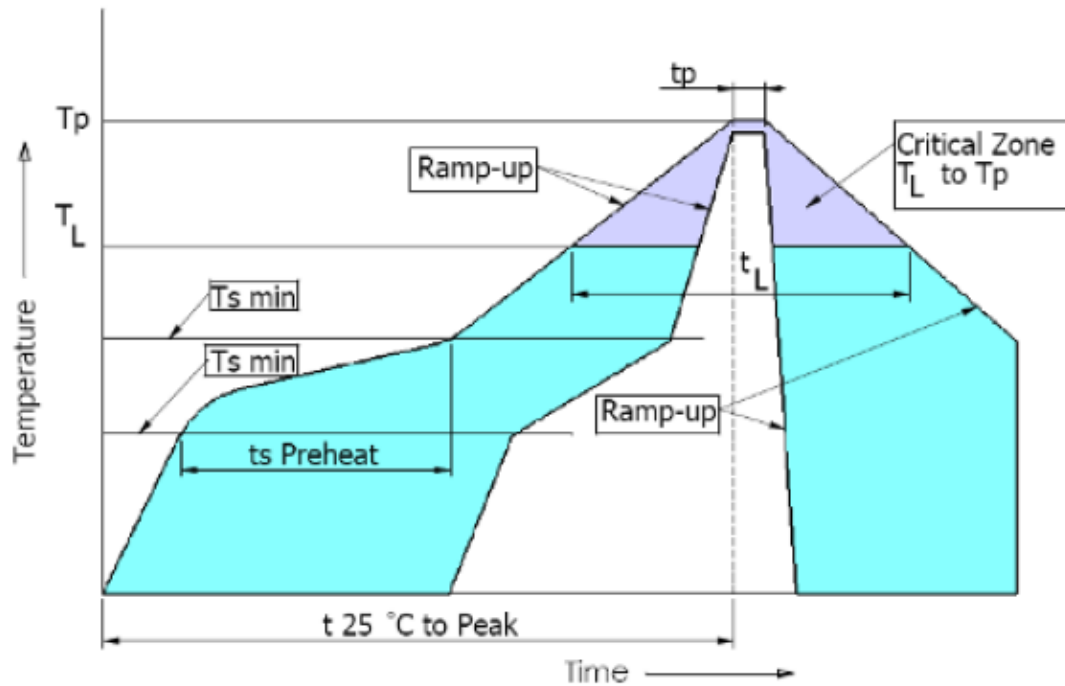


Figure 4. Typical polar radiation pattern for IR lambertian

## ■ Reflow Soldering Characteristics :



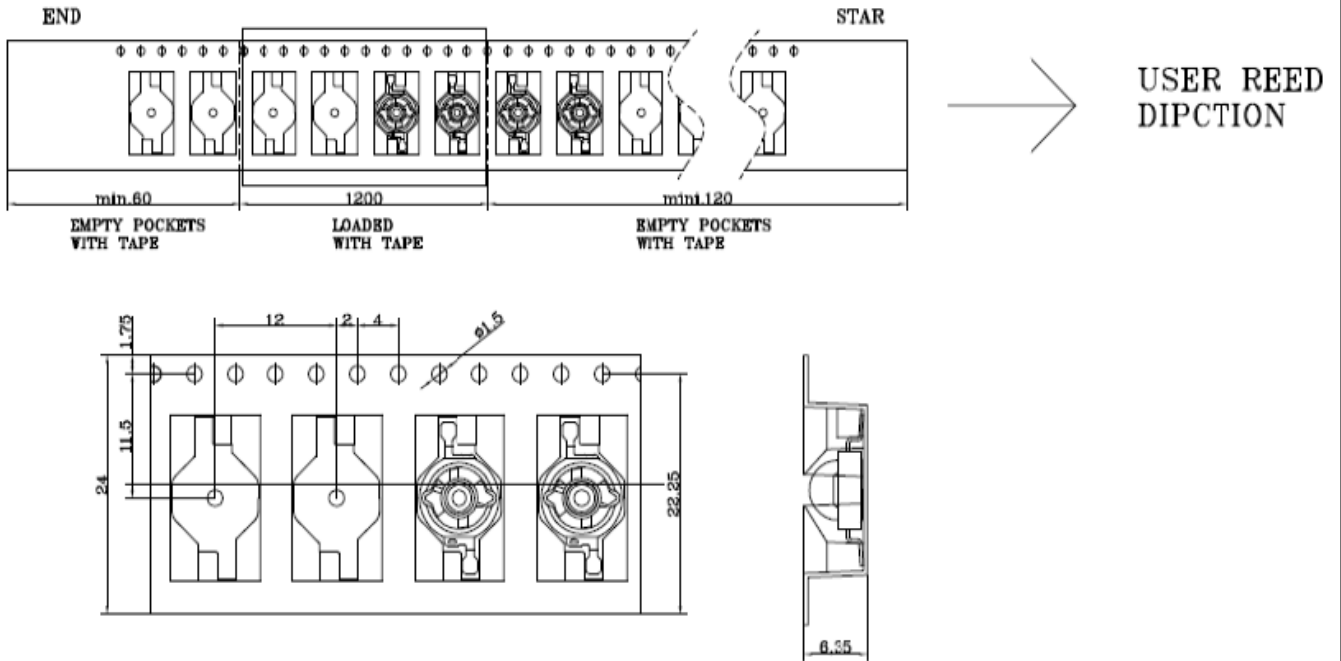
Profile Feature	Lead Free Assembly
Average RampUP Rate ( $T_{s_{max}}$ to $T_p$ )	3°C / second max
Preheat Temperature Min ( $T_{s_{min}}$ )	150°C
Preheat Temperature Max ( $T_{s_{max}}$ )	200°C
Preheat Time ( $t_{s_{min}}$ to $t_{s_{max}}$ )	60-180 seconds
Time Maintained Above Temperature ( $T_L$ )	217°C
Time Maintained Above Time ( $t_L$ )	60-150 seconds
Peak / Classification Temperature ( $T_p$ )	260°C
Time Within 5°C of Actual Peak Temperature ( $t_p$ )	20-40 seconds
Ramp-Down Rate	6°C / second max
Time 25°C to Peak Temperature	8 minutes max

### Notes for Table 6:

1. All temperatures refer to the application Printed Circuit Board (PCB), measured on the surface adjacent to the package body.

**Emitter Pocket Tape Packaging**

Unit: mm



**Emitter Reel Packaging**

Unit: mm

