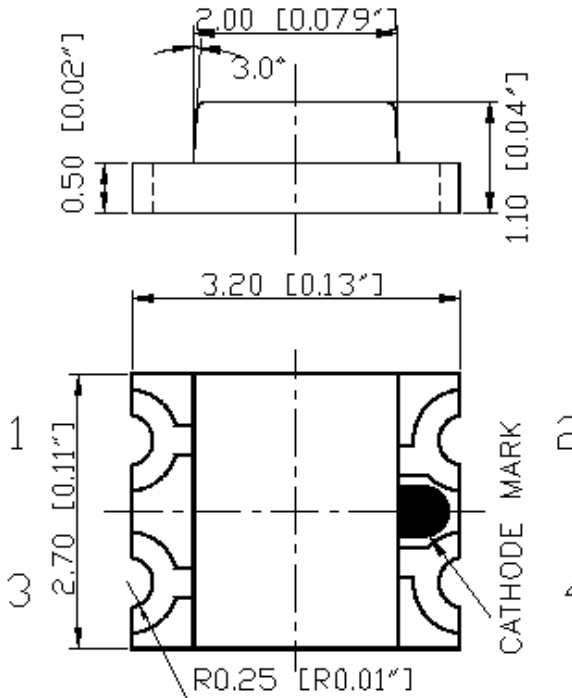
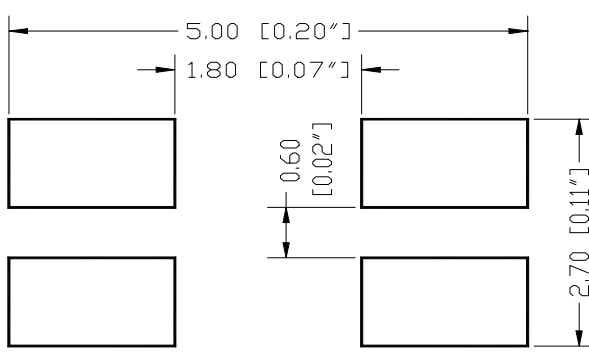


**SPECIFICATIONS** **CS121Y1G1C**

### OUTLINES DIMENSIONS



**RECOMMEND PAD LAYOUT**



ITEM	MATERIALS	
Resin (mold)	Epoxy	
Lens color	Water transparent	
Dice	Yellow	GaAsP/GaP
	Green	GaP/GaP

**Notes:**

- All Dimensions are in millimeters (inches).
- Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise noted.
- Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CS121Y1G1C	GaP/GaP	Yellow/Green	Water Clear	140°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Color	Max Rating	Unit
Power Dissipation	PD	Yellow	75	mW
		Green	75	
Pulse Current Forward Current	IFP	Yellow	125	mA
		Green	125	
Continuous Forward Current	IF	Yellow	30	mA
		Green		
Reverse Voltage	VR	5		V
Operating Temperature Range	TOPR	-40~+85		°C
Storage Temperature Range	TSTG	-40~+85		°C

IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10. Soldering Condition: 260 °C/ 5sec

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	Yellow	3.2	8.0	-	mcd
			Green	5.0	15	-	
Forward Voltage	VF	IF = 20mA	Yellow	-	2.0	2.5	V
			Green	-	2.0	2.5	
Reverse Leakage Current	IR	VR = 5V	Yellow	-	-	10	µA
			Green	-	-	10	
Viewing Angle	2θ1/2	IF = 20mA	Yellow	-	140	-	deg
			Green	-	140	-	
Peak Wavelength	λP	IF = 20mA	Yellow	-	590	-	nm
			Green	-	565	-	
Dominant Wavelength	λD	IF = 20mA	Yellow	-	585	-	nm
			Green	-	570	-	

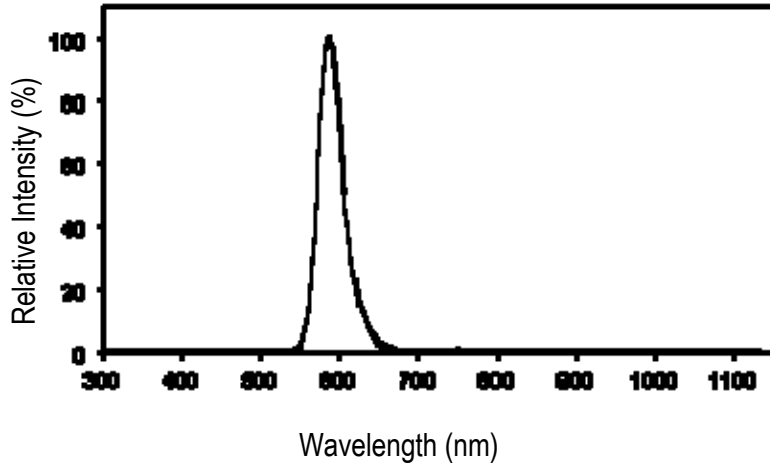
\*Tolerance of viewing angle: -10 / +5 deg.



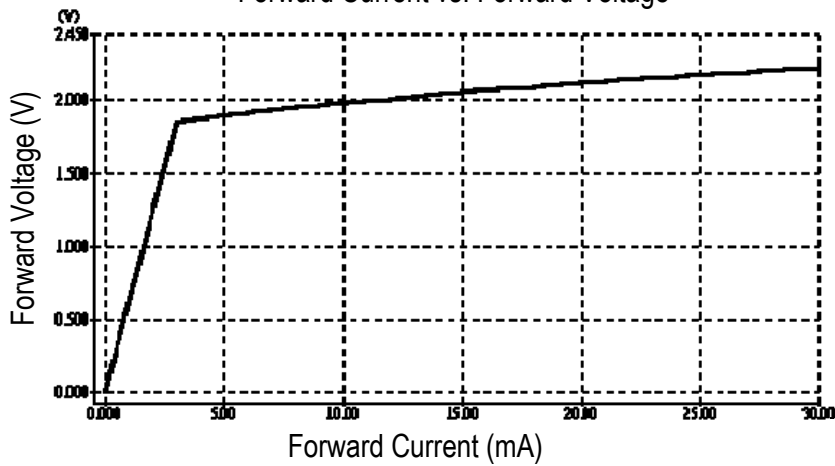
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OPTICAL CHARACTERISTIC CURVES (YELLOW)

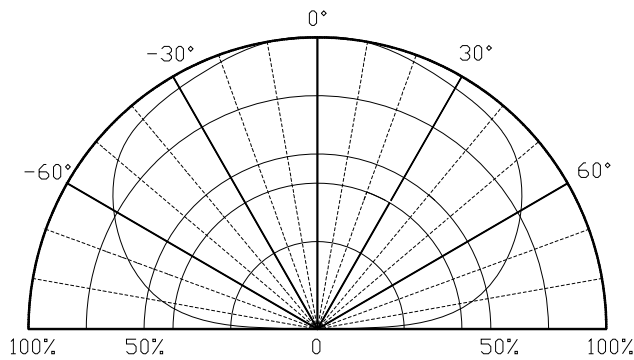
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



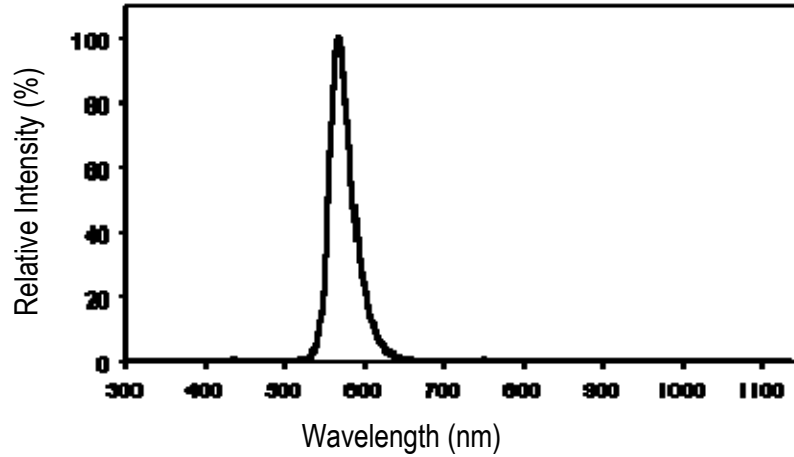
Directive Characteristics



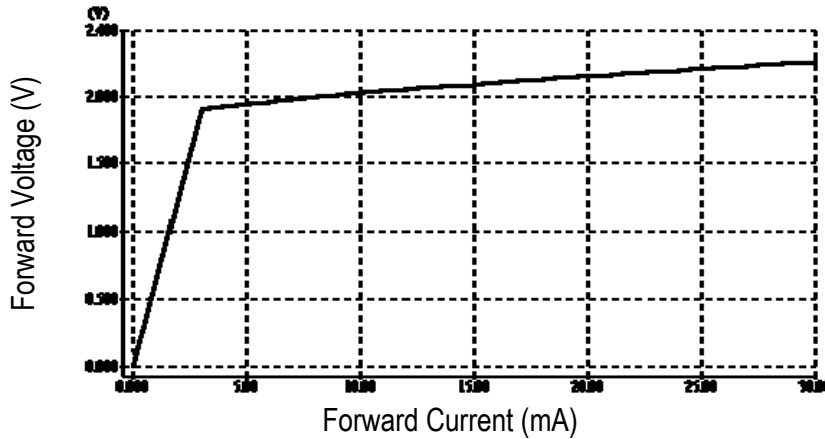
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OPTICAL CHARACTERISTIC CURVES (GREEN)

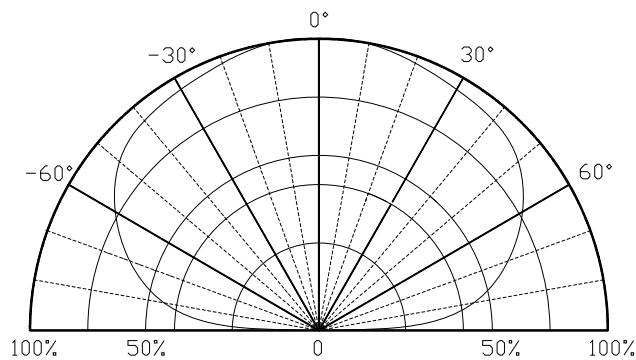
Relative Intensity vs. Wavelength



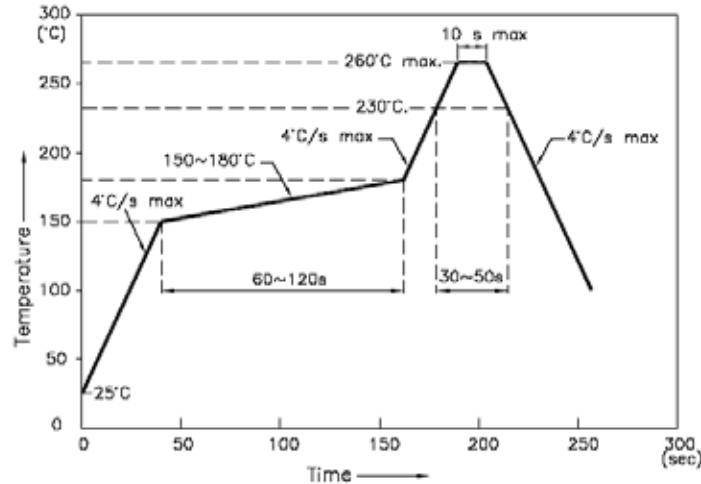
Forward Current vs. Forward Voltage



Directive Characteristics



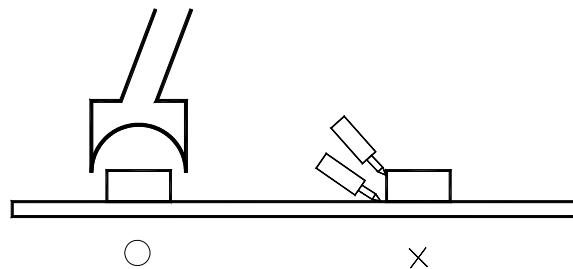
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**SOLDERING CONDITIONS – LAMP TYPE LED**
**REFLOW PROFILE**

**NOTES:**

1. We recommend the reflow temperature 245°C (±5°C). The maximum soldering temperature should be limited to 260°C.
2. Do not cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.
  - Soldering iron
  - Basic spec is ≤ 5sec when 260°C. If temperature is higher, time should be shorter
  - (+10°C → -1sec). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230°C.

**Rework**

1. Customer must finish rework within 5 sec under 260°C.
2. The head of iron cannot touch copper foil
3. Twin-head type is preferred.

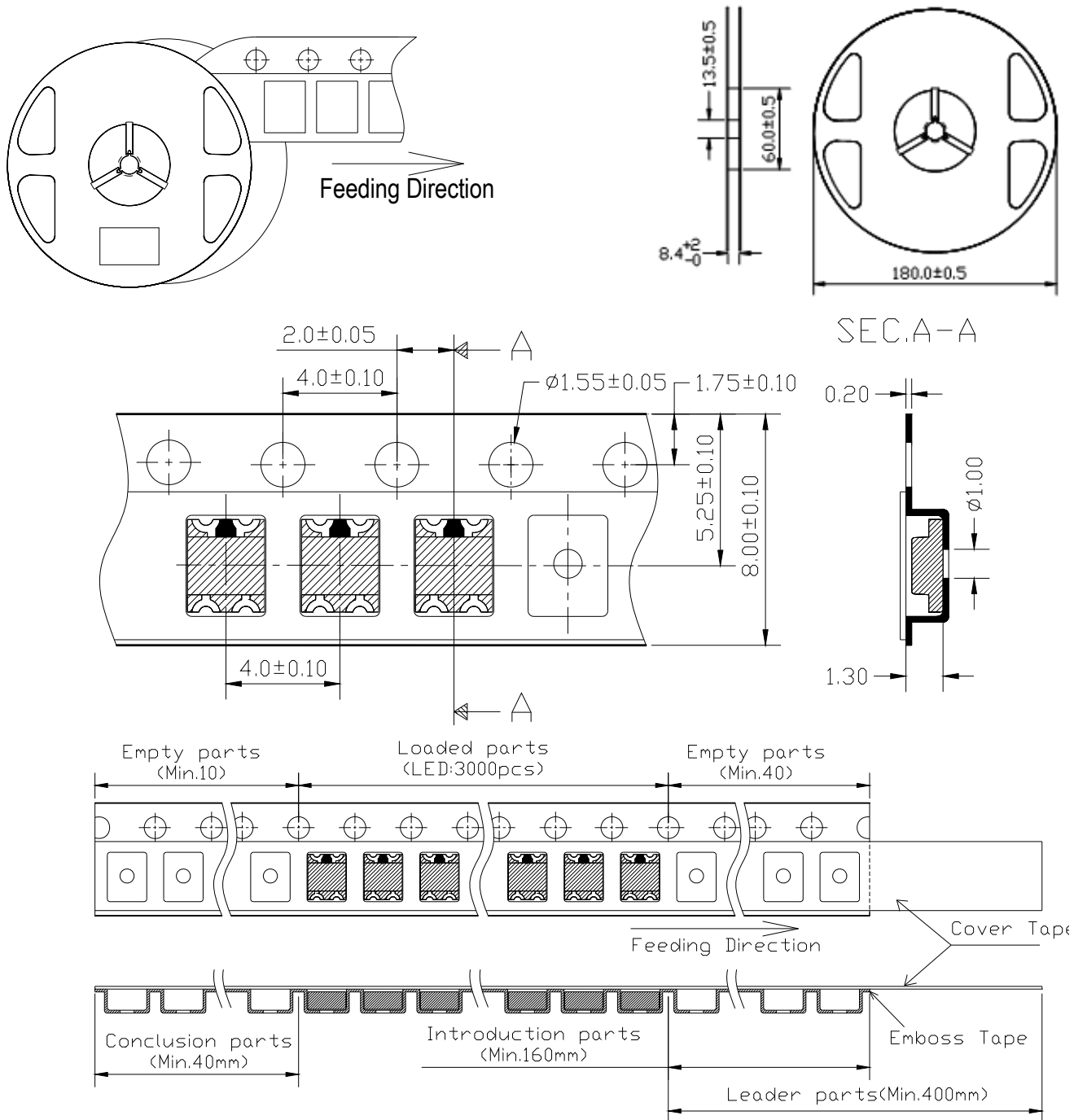


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# PACKAGING SPECIFICATIONS

- Feeding Direction**

- Dimensions of Reel (Unit: mm)**



**Notes:**

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole.
4. 3,000pcs/Reel



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