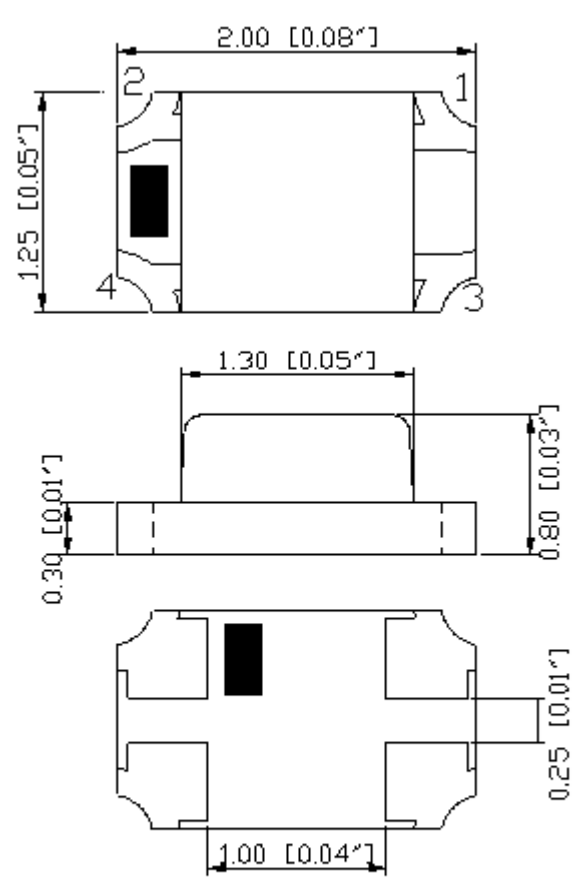


**SPECIFICATIONS** **CSB85BY2G2C**

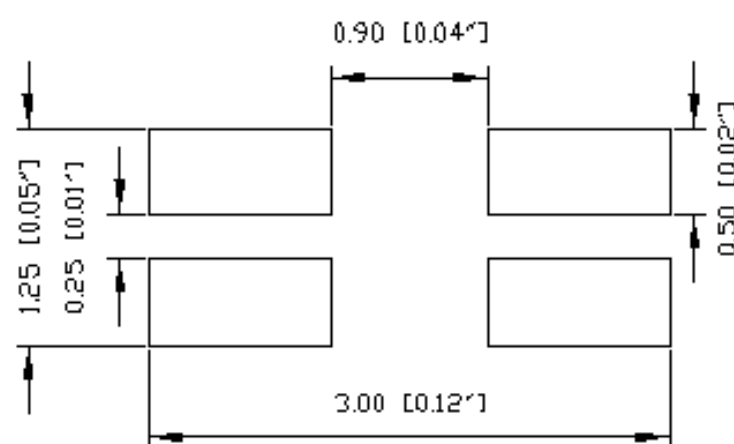
### OUTLINES DIMENSIONS



Technical drawings showing outlines and dimensions (in millimeters and inches) for the LED package:

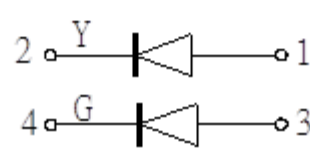
- Top view: Overall width 2.00 [0.08"], height 1.25 [0.05"], and a central feature width of 1.30 [0.05"].
- Side view: Total height 0.80 [0.03"], with a top section height of 0.30 [0.01"] and a bottom section height of 0.50 [0.02"].
- Bottom view: Overall width 1.00 [0.04"], with a central feature width of 0.90 [0.04"] and a bottom section height of 0.25 [0.01"].

### RECOMMENDED PAD LAYOUT



Recommended pad layout dimensions (in millimeters and inches):

- Overall width: 3.00 [0.12"]
- Overall height: 1.25 [0.05"]
- Central feature width: 0.90 [0.04"]
- Pad height: 0.25 [0.01"]
- Bottom section height: 0.50 [0.02"]



ITEM	MATERIALS	
Resin (mold)	Epoxy	
Lens Color	Water Transparent	
Dice	Yellow	AlGaInP/GaAs
	Green	AlGaInP/GaAs

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
CSB85BY2G2C	InGaAlP	Yellow	Water Clear	140°
	InGaAlP	Green		



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**ABSOLUTE MAXIMUM RATINGS - YELLOW (InGaAlP)**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	75	mW
Pulse Forward Current	IFP	125	mA
Continuous Forward Current	IF	30	mA
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 - YELLOW (InGaAlP)**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	80	140	-	mcd
Forward Voltage	VF	IF = 20mA	-	2.0	2.5	V
Reverse Leakage Current	IR	VR = 40V	-	-	10	µA
Peak Wavelength	λP	IF = 20mA	-	595	-	nm
Dominant Wavelength	λD	IF = 20mA	-	590	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	18	-	nm



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**ABSOLUTE MAXIMUM RATINGS - GREEN (InGaAlP) (TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	75	mW
Pulse Forward Current	IFP	125	mA
Continuous Forward Current	IF	30	mA
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			

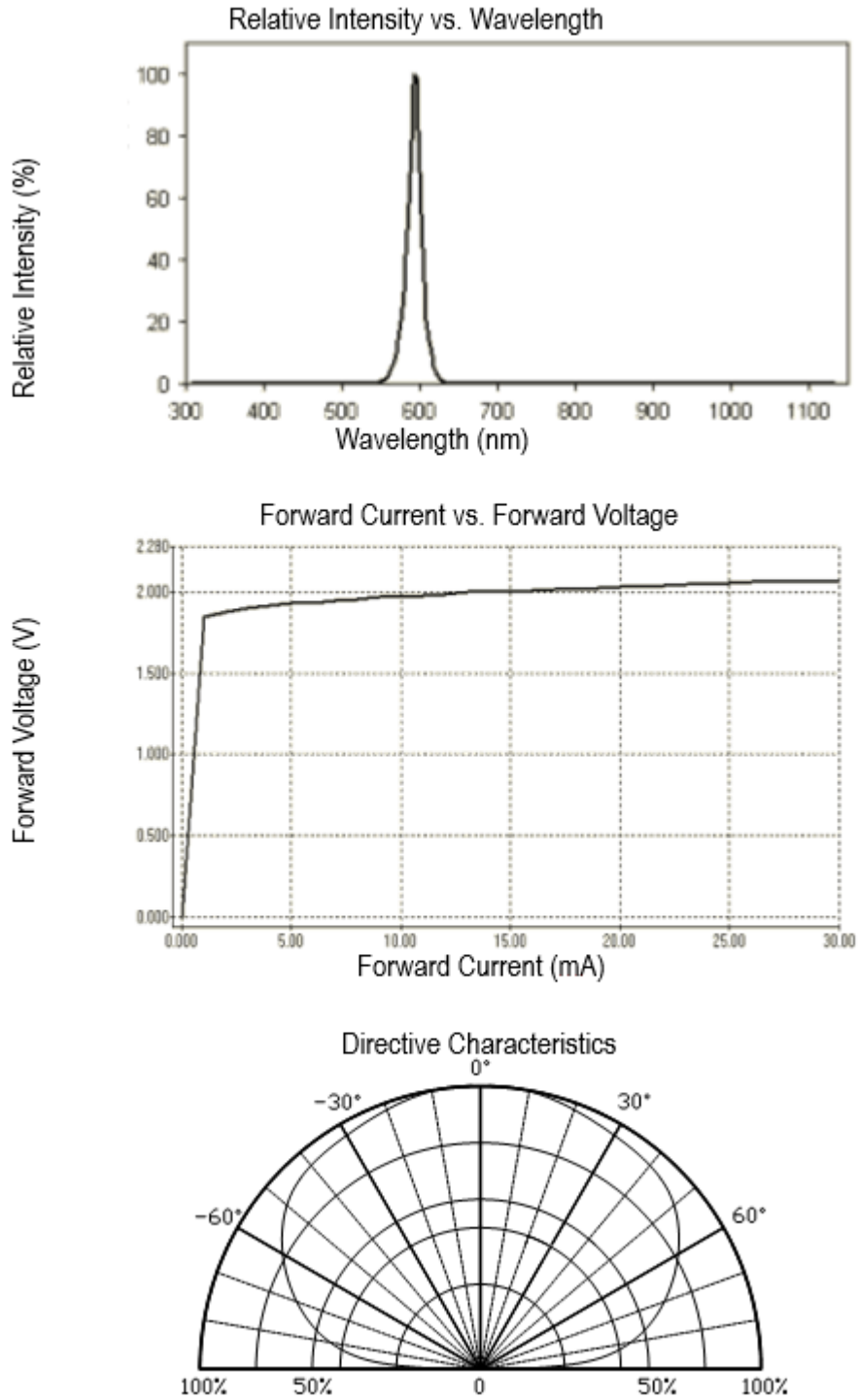
**OPTICAL-ELECTRICAL CHARACTERISTICS - GREEN (InGaAlP) (TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	20	35	-	mcd
Forward Voltage	VF	IF = 20mA	-	2.0	2.5	V
Reverse Leakage Current	IR	VR = 40V	-	-	10	µA
Peak Wavelength	λP	IF = 20mA	-	572	-	nm
Dominant Wavelength	λD	IF = 20mA	-	570	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	16	-	nm



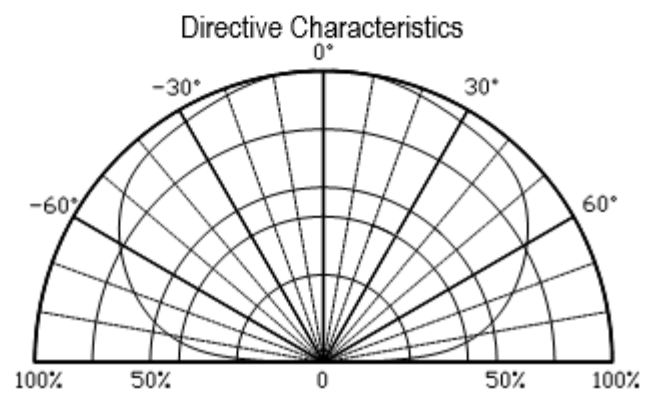
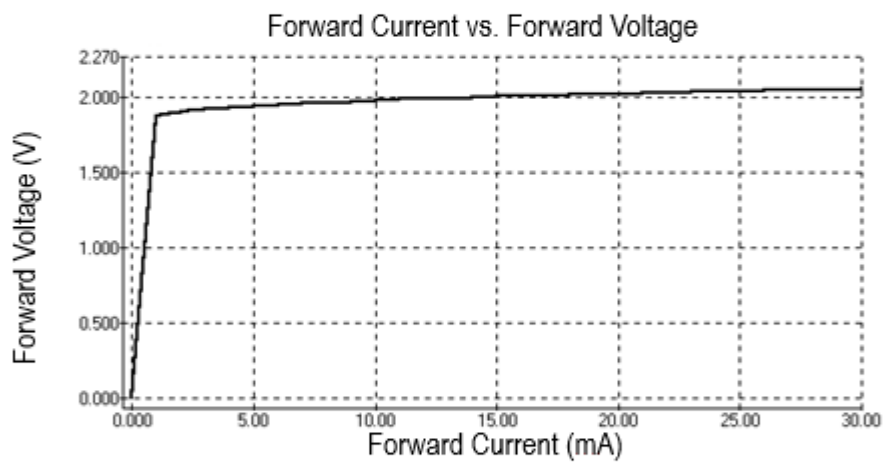
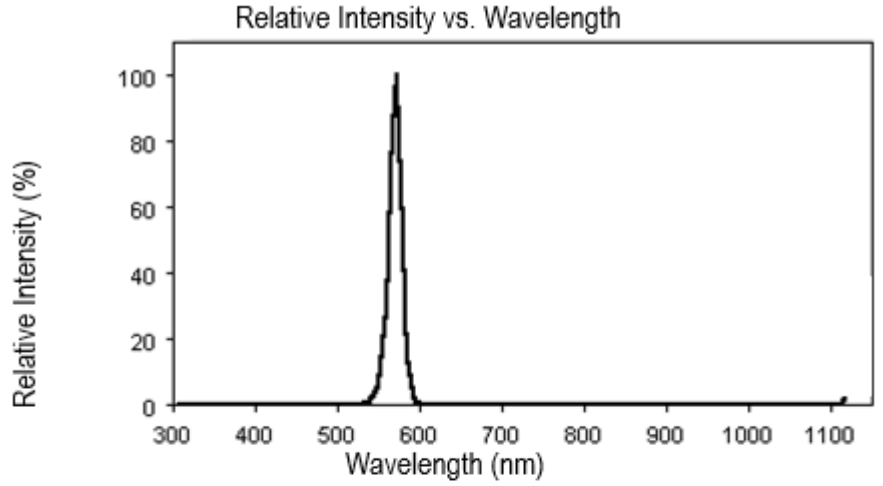
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## OPTICAL CHARACTERISTIC CURVES - YELLOW



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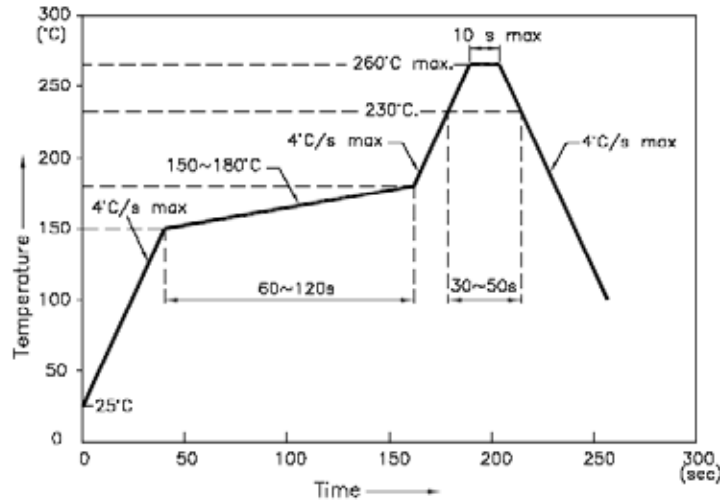
# OPTICAL CHARACTERISTIC CURVES - GREEN



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## RECOMMENDED SOLDERING PROFILE

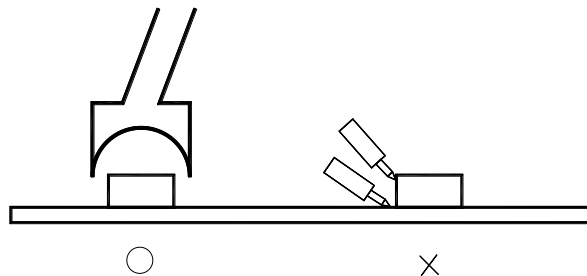
### REFLOW PROFILE



1. We recommend the reflow temperature 245°C ( $\pm 5^\circ\text{C}$ ). 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  $\leq 5\text{sec}$  when 260°C. If temperature is higher, time should be shorter
  - (+10°C  $\rightarrow$  -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

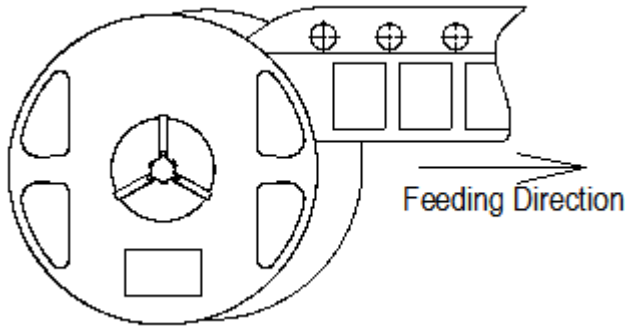
1. Customer must finish rework within 5 sec under 260°C.
2. The head of iron cannot touch copper foil
3. Twin-head type is preferred.



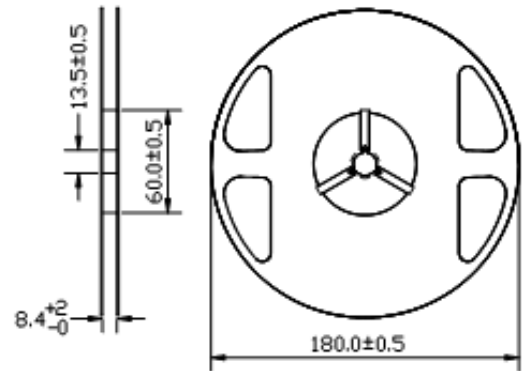
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## PACKAGING SPECIFICATIONS

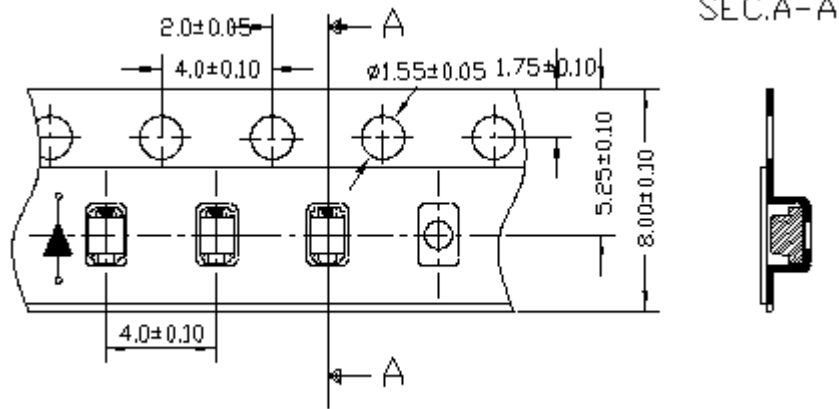
- Feeding Direction



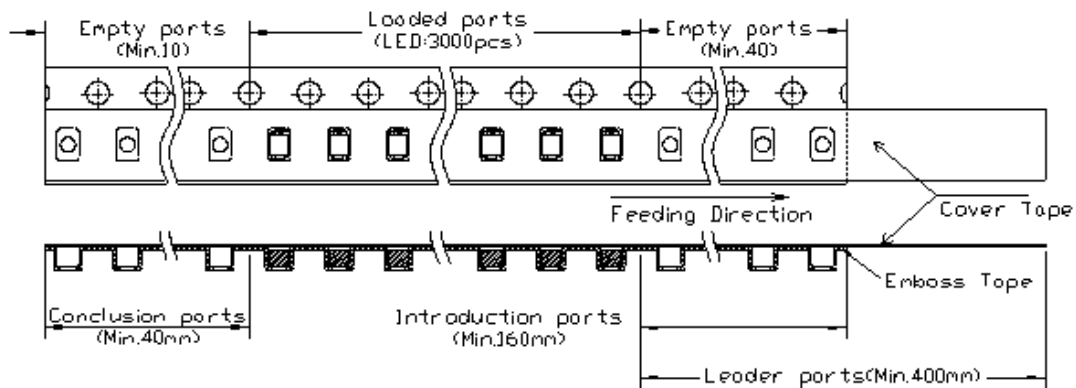
- Dimensions of Reel (Unit: mm)



- Dimensions of Tape (Unit: mm)



- Arrangement of Tape



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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