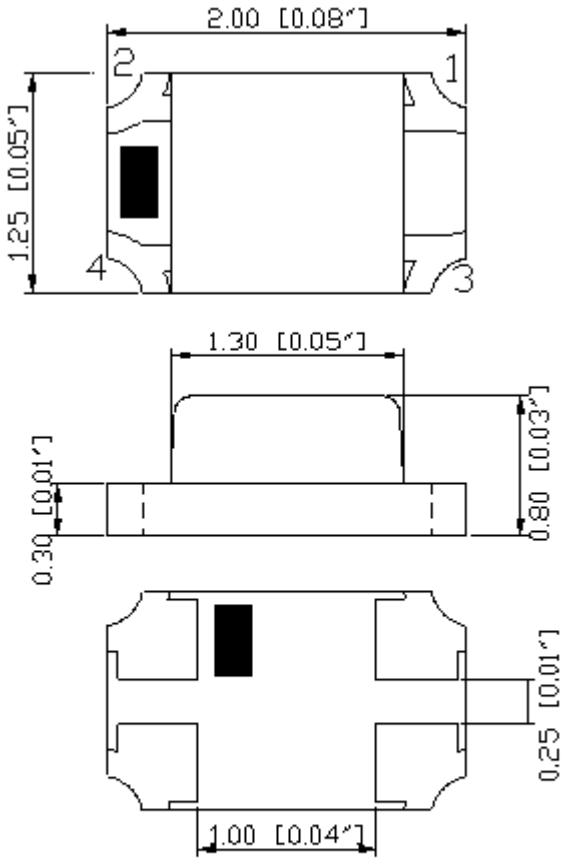
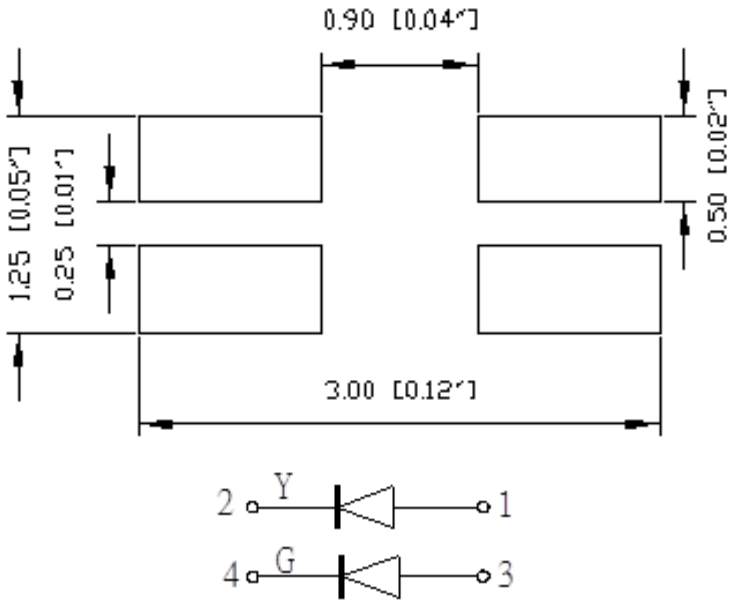
SPECIFICATIONS CSB85BY2G2C

OUTLINES DIMENSIONS



RECOMMENDED PAD LAYOUT



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

Notes:
1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwise noted.
3. 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	P_D	75	mW
Pulse Forward Current	I_{FP}	125	mA
Continuous Forward Current	I_F	30	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-40~+85	°C
Storage Temperature Range	T_{STG}	-40~+85	°C
I_{FP} = 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	I_V	I_F = 20mA	80	140	-	mcd
Forward Voltage	V_F	I_F = 20mA	-	2.0	2.5	V
Reverse Leakage Current	I_R	V_R = 40V	-	-	10	μA
Peak Wavelength	λ_P	I_F = 20mA	-	595	-	nm
Dominant Wavelength	λ_D	I_F = 20mA	-	590	-	nm
Spectral Radiation Bandwidth	$\Delta\lambda$	I_F = 20mA	-	18	-	nm

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

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P_D	75	mW
Pulse Forward Current	I_{FP}	125	mA
Continuous Forward Current	I_F	30	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-40~+85	°C
Storage Temperature Range	T_{STG}	-40~+85	°C
I_{FP} = 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	I_V	I_F = 20mA	20	35	-	mcd
Forward Voltage	V_F	I_F = 20mA	-	2.0	2.5	V
Reverse Leakage Current	I_R	V_R = 40V	-	-	10	μA
Peak Wavelength	λ_P	I_F = 20mA	-	572	-	nm
Dominant Wavelength	λ_D	I_F = 20mA	-	570	-	nm
Spectral Radiation Bandwidth	$\Delta\lambda$	I_F = 20mA	-	16	-	nm

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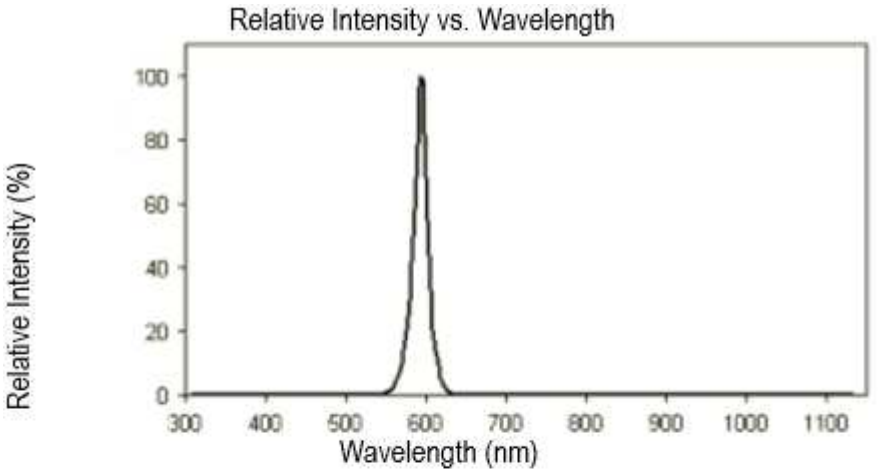
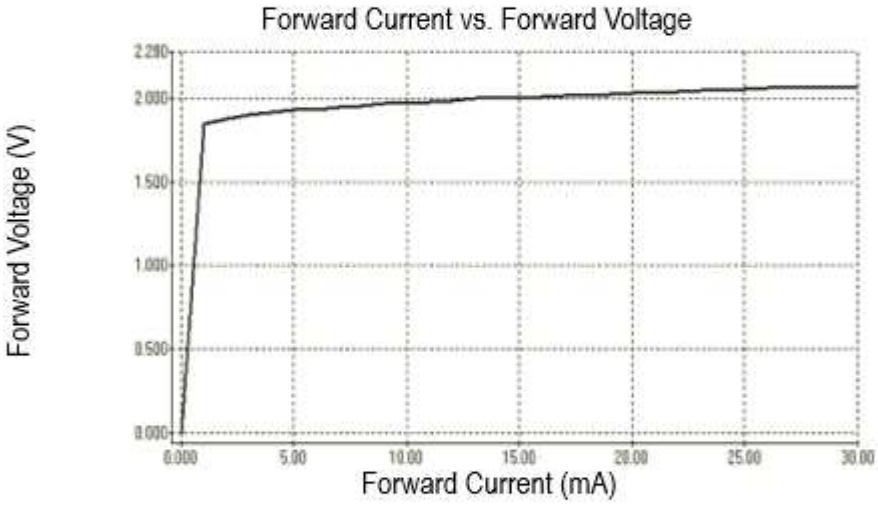
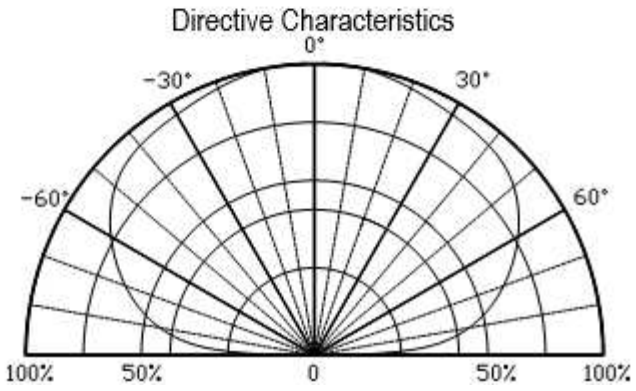
OPTICAL CHARACTERISTIC CURVES - YELLOW







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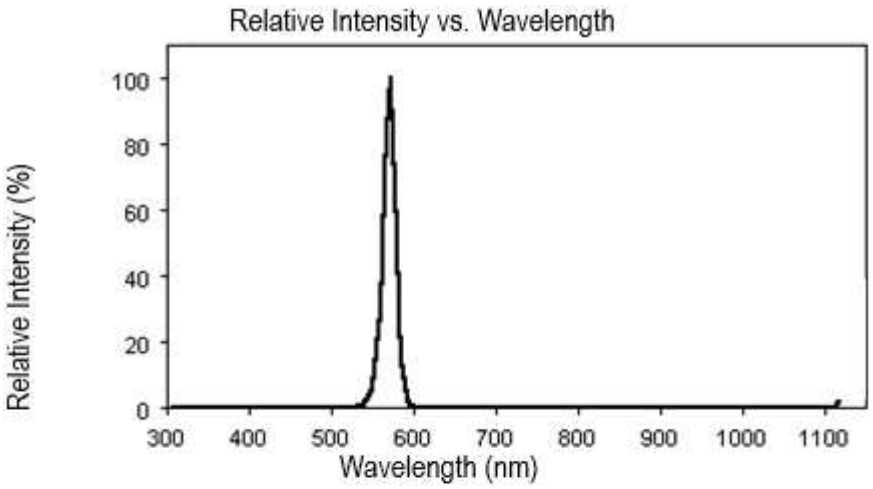
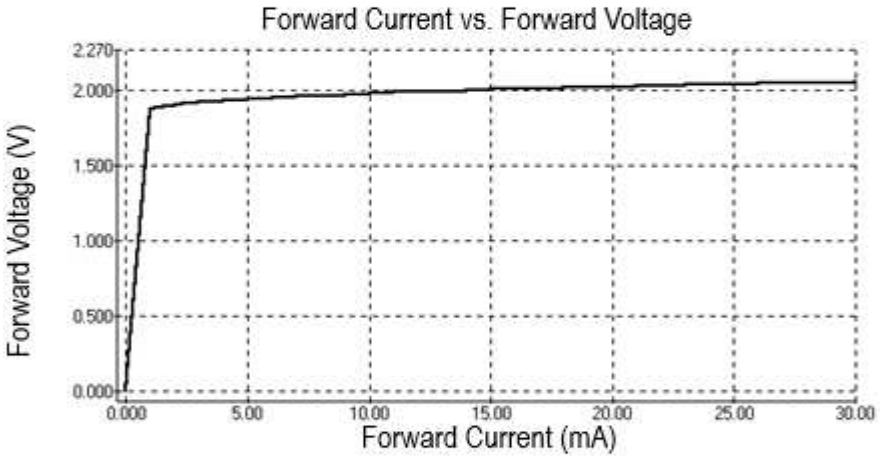
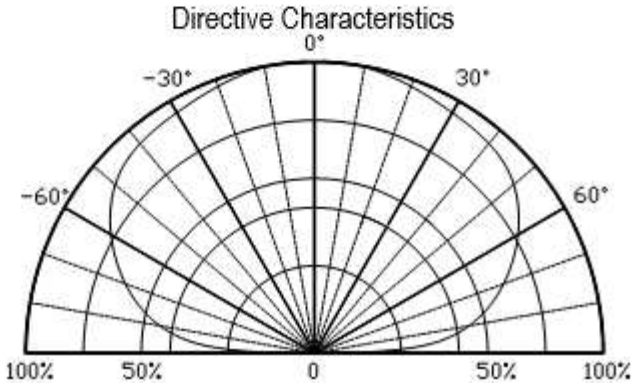
OPTICAL CHARACTERISTIC CURVES - GREEN







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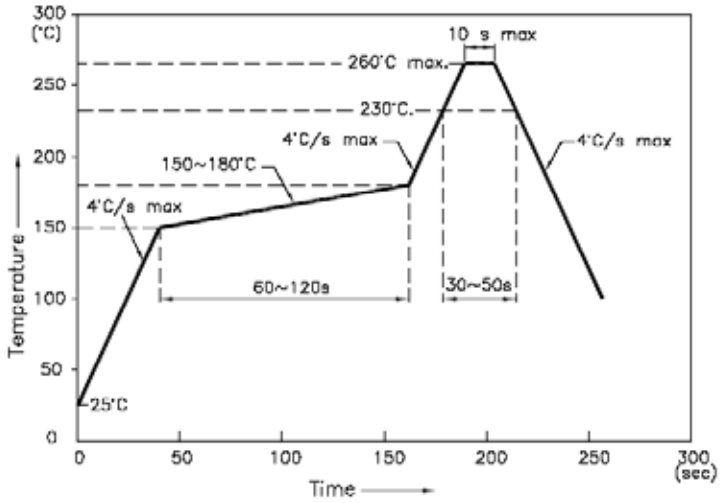
RECOMMENDED SOLDERING PROFILE

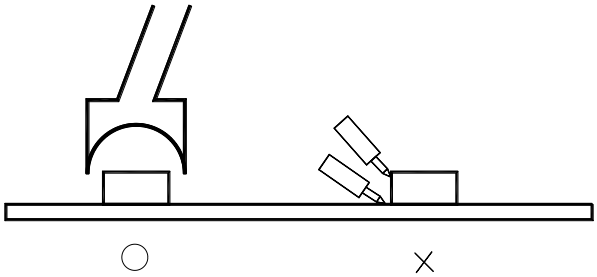
REFLOW PROFILE



1. We recommend the reflow temperature 245°C (±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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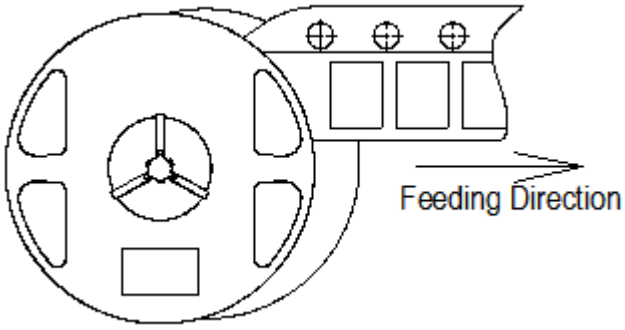
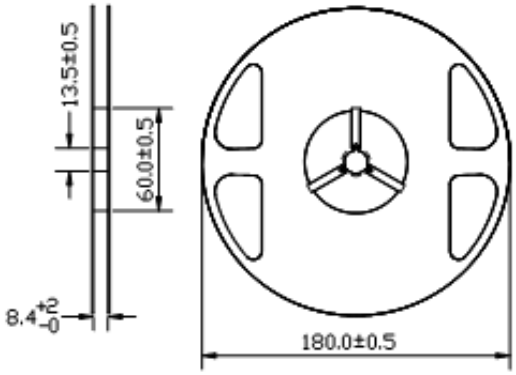
PACKAGING SPECIFICATIONS

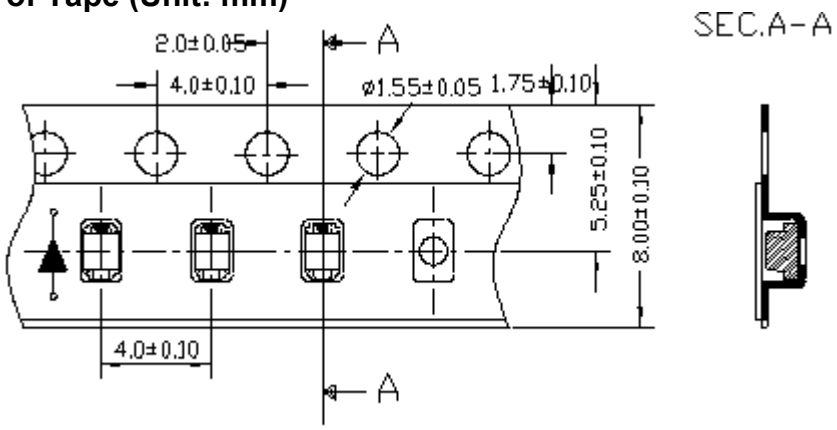
- **Feeding Direction**



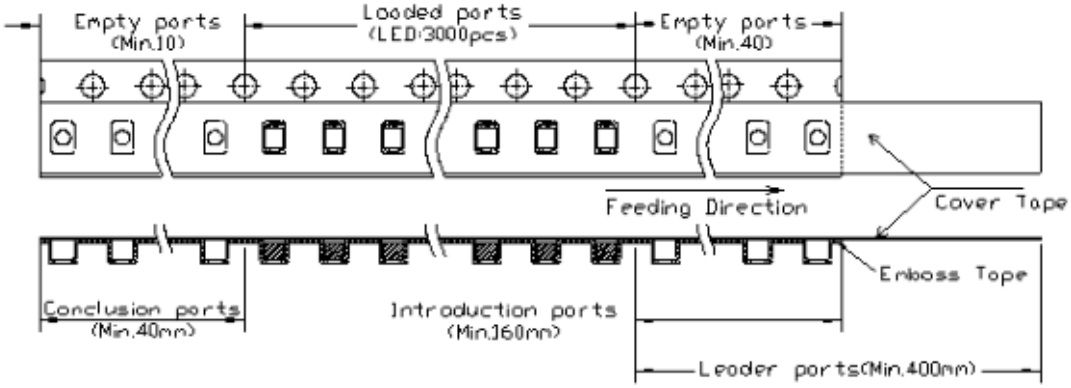
- **Dimensions of Reel (Unit: mm)**



- **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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