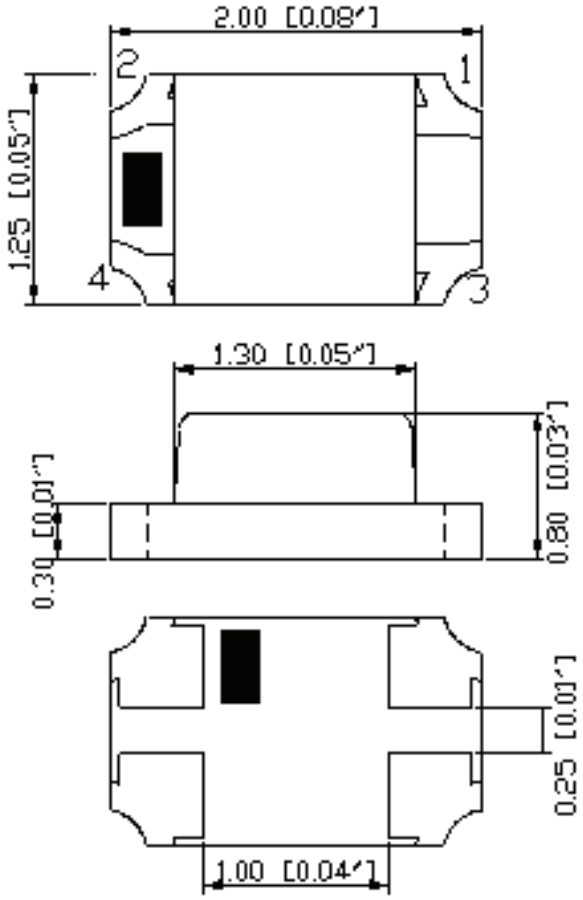
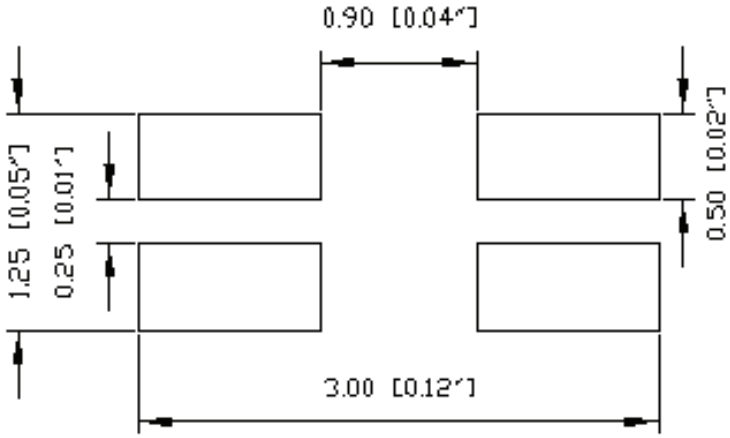
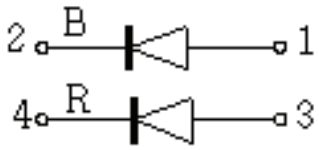
SPECIFICATIONS CSB85BR2B2C

OUTLINES DIMENSIONS



RECOMMENDED PAD LAYOUT





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
CSB85BR2B2C	InGaAlP/InGaN	Red/Blue	Water Clear	140°

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ABSOLUTE MAXIMUM RATINGS (TA=25°C)

Parameter	Symbol	Color	Max Rating	Unit
Power Dissipation	PD	RED	75	mW
		BLUE	111	
Pulse Current Forward Current	IFP	RED	125	mA
		BLUE		
Continuous Forward Current	IF	RED	30	mA
		BLUE		
Reverse Voltage	VR	5		V
Operating Temperature Range	TOPR	-40~+80		°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	Red	50	100	-	mcd
			Blue	50	85	-	
Forward Voltage	VF	IF = 20mA	RED	-	2.0	2.5	V
			Blue	-	3.1	3.7	
Reverse Leakage Current	IR	VR = 5V	RED	-	-	10	μA
			Blue	-	-	10	
Viewing Angle	2θ1/2	IF = 20mA	RED	-	140	-	deg
			Blue	-	140	-	
Dominant Wavelength	λD	IF = 20mA	RED	625	630	635	nm
			Blue	465	470	475	

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

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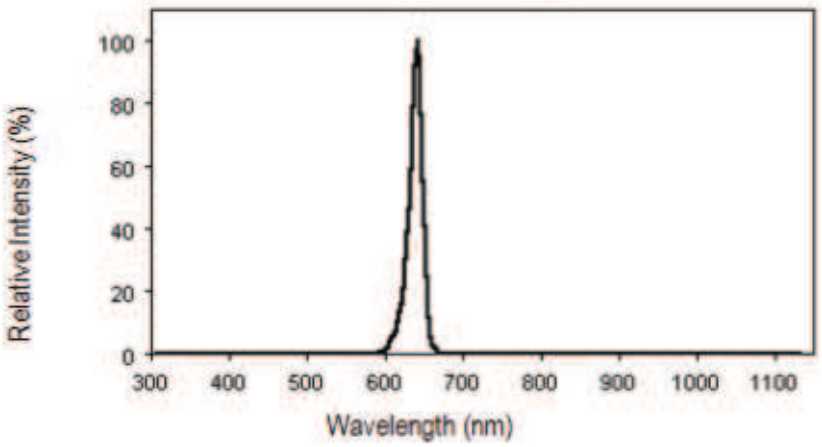
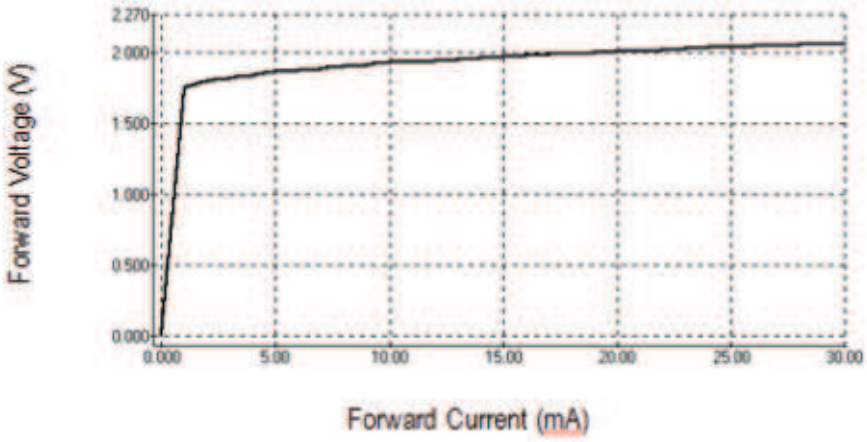
OPTICAL CHARACTERISTIC CURVES (RED)

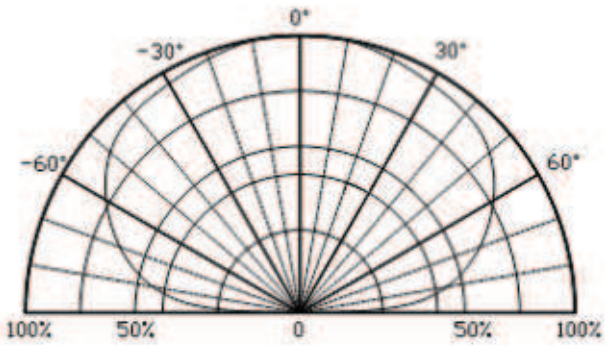
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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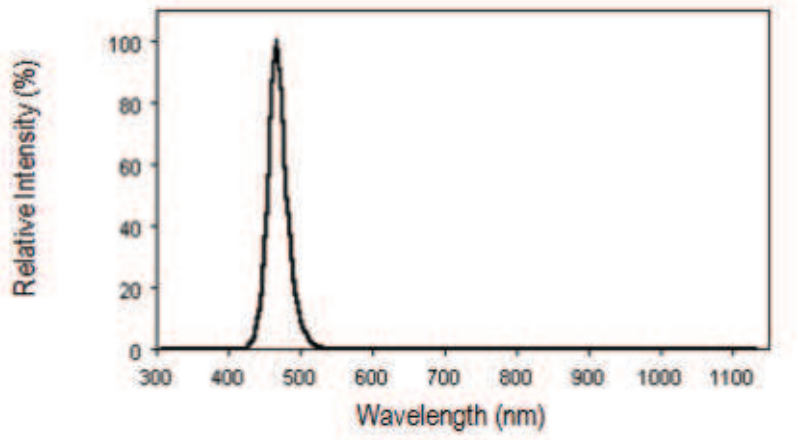
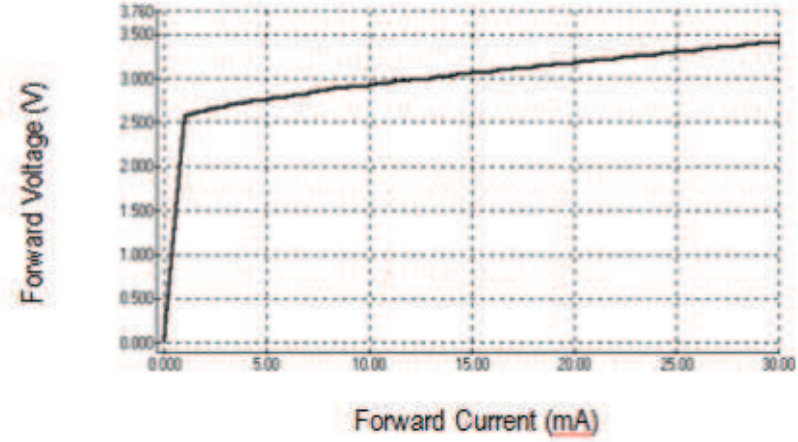
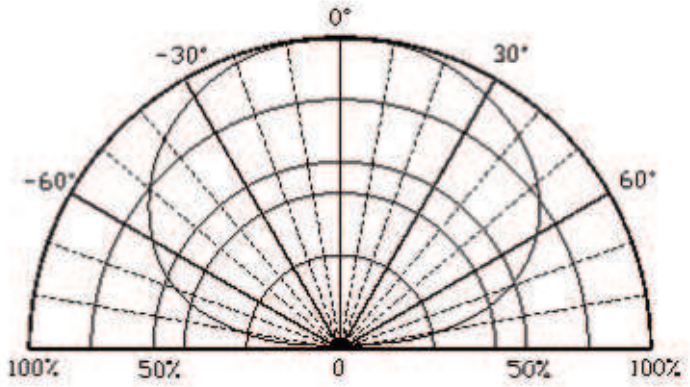
OPTICAL CHARACTERISTIC CURVES (BLUE)

Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage





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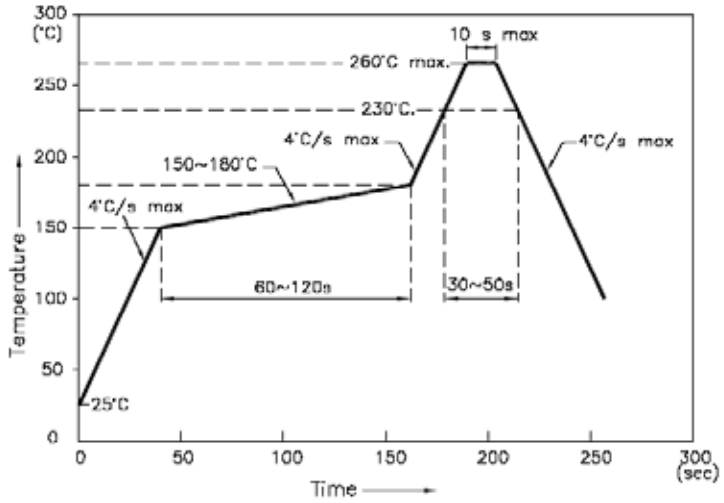
SOLDERING CONDITIONS

Reflow Profile/Time

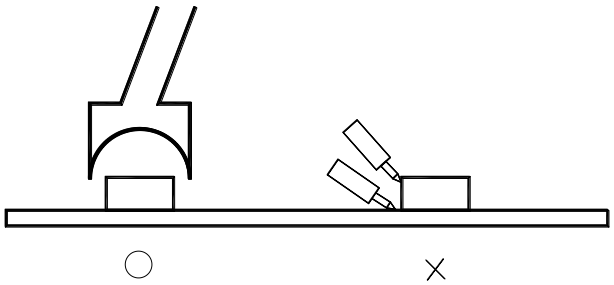


NOTES:

1. We recommend the reflow temperature 245°C (±5°C).the maximum soldering temperature should be limited to 260°C.
2. Don't 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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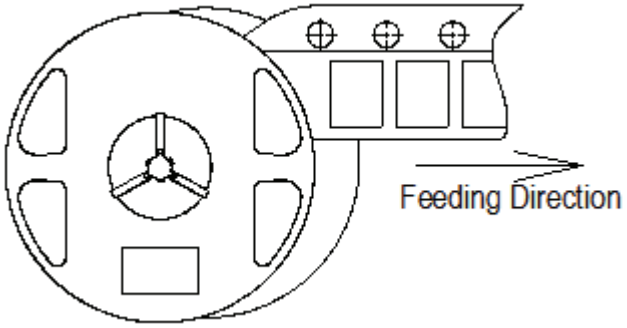
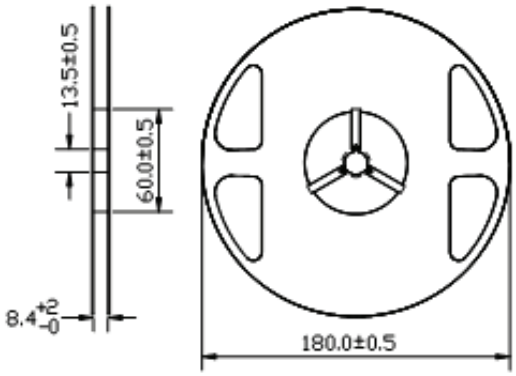
PACKAGING SPECIFICATIONS

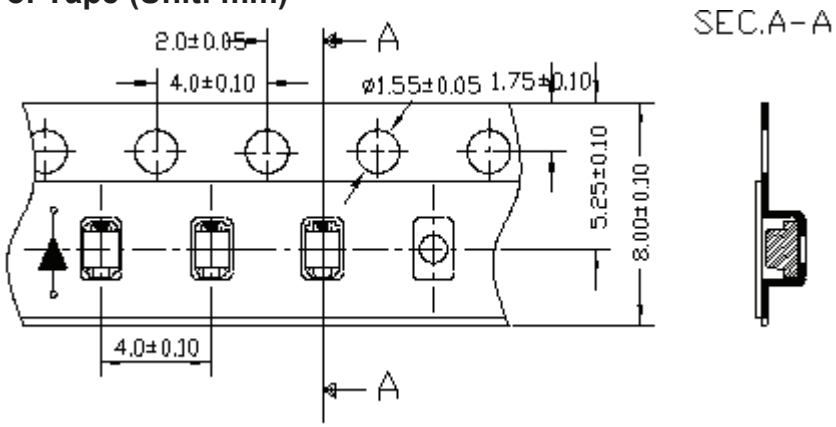
- **Feeding Direction**



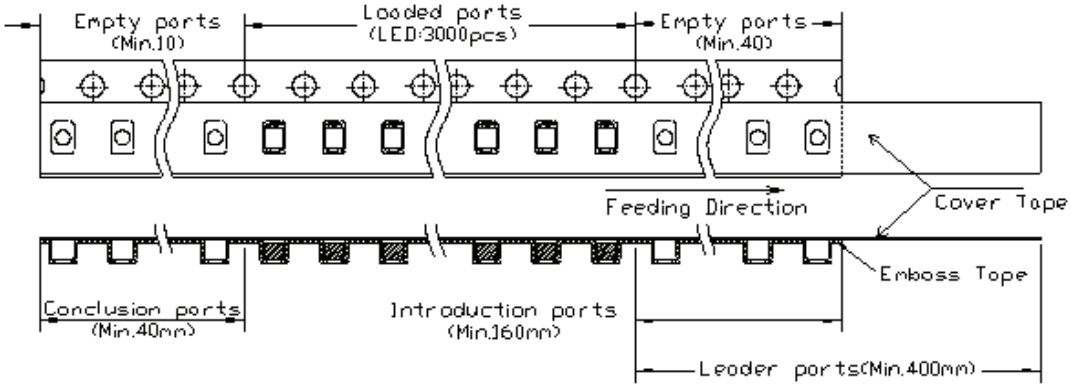
- **Dimensions of Reel (Unit: mm)**



- **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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