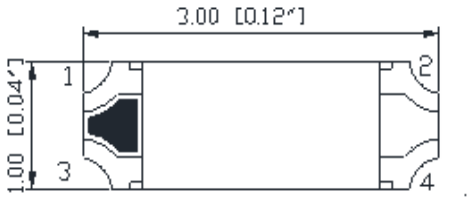
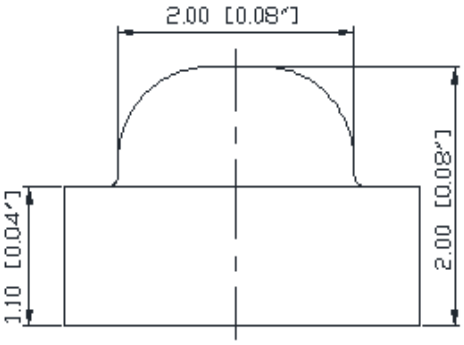
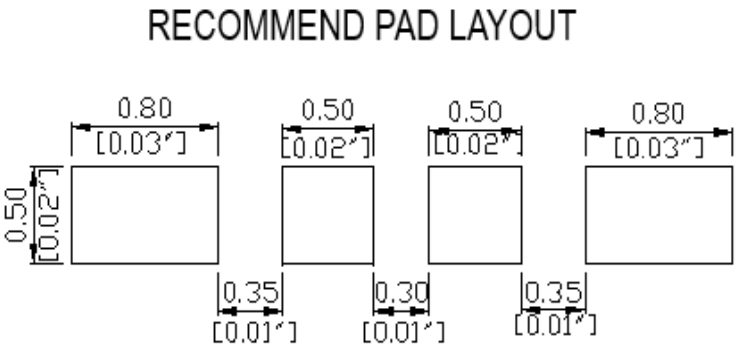
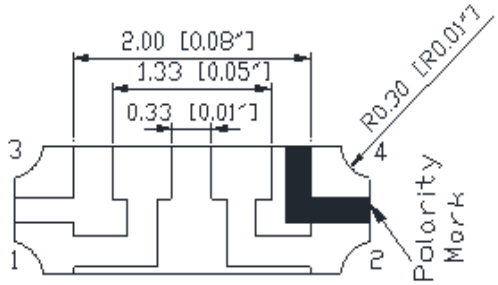
SPECIFICATIONS CSRB125R2G2C-1

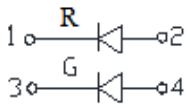
OUTLINES DIMENSIONS











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
CSRB125R2G2C-1	InGaAlP	Red	Water Clear	150°
	InGaAlP	Green		

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ABSOLUTE MAXIMUM RATINGS - RED (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~+80	°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 - RED (InGaAlP) (TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I_V	I_F = 20mA	80	150	-	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	-	630	-	nm
Dominant Wavelength	λ_D	I_F = 20mA	-	620	-	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~+80	°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	40	70	-	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	-	575	-	nm
Dominant Wavelength	λ_D	I_F = 20mA	-	570	-	nm
Spectral Radiation Bandwidth	$\Delta\lambda$	I_F = 20mA	-	18	-	nm

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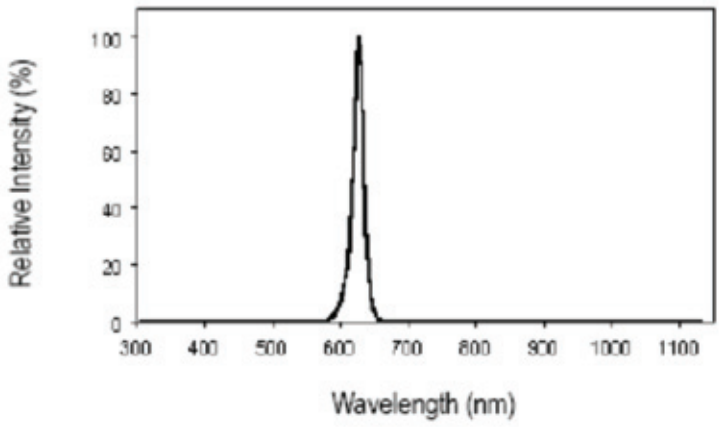
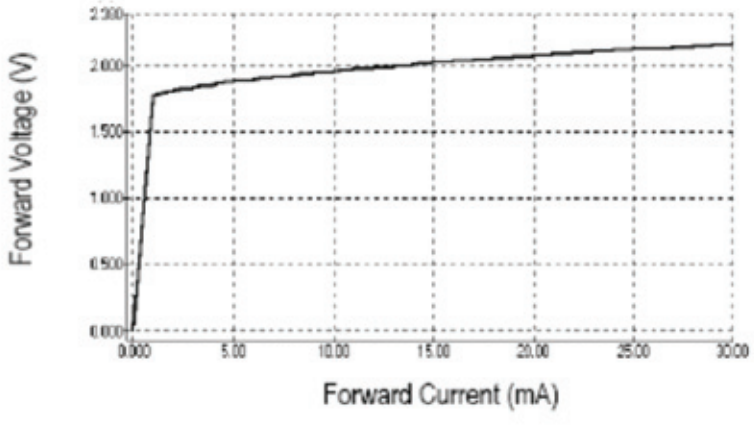
OPTICAL CHARACTERISTIC CURVES - RED

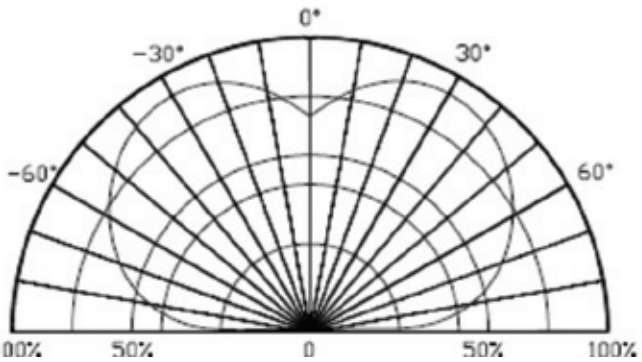
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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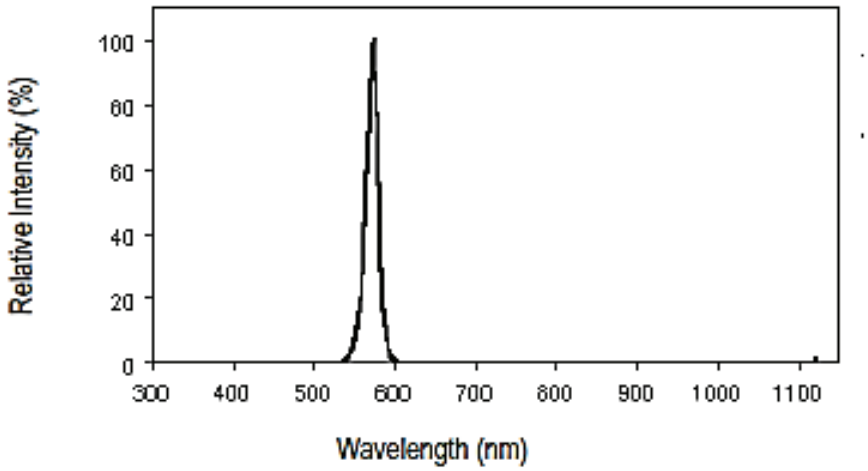
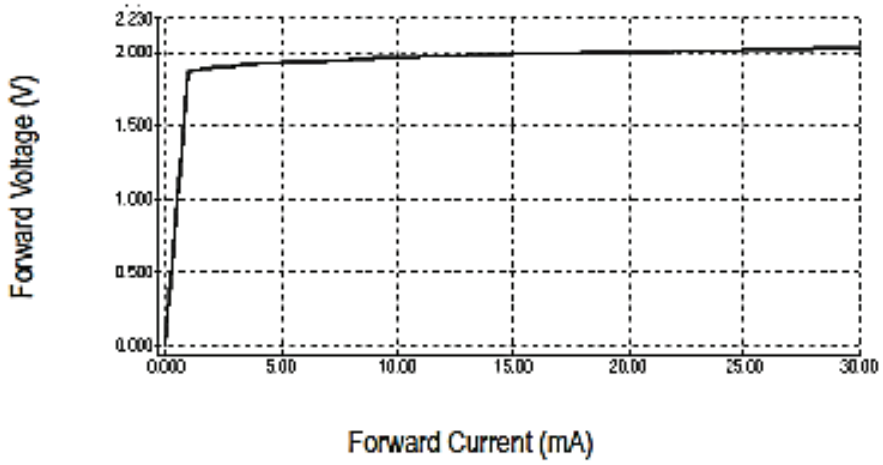
OPTICAL CHARACTERISTIC CURVES - GREEN

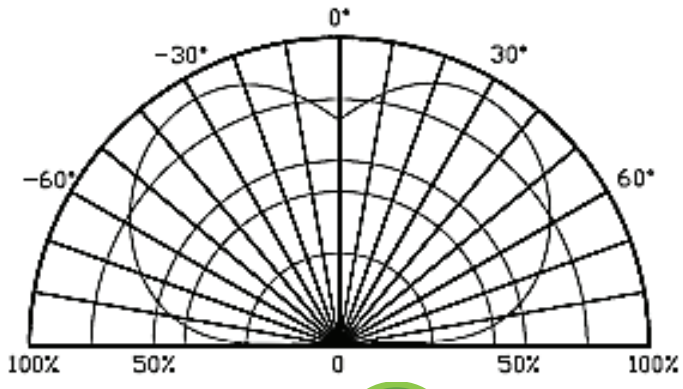
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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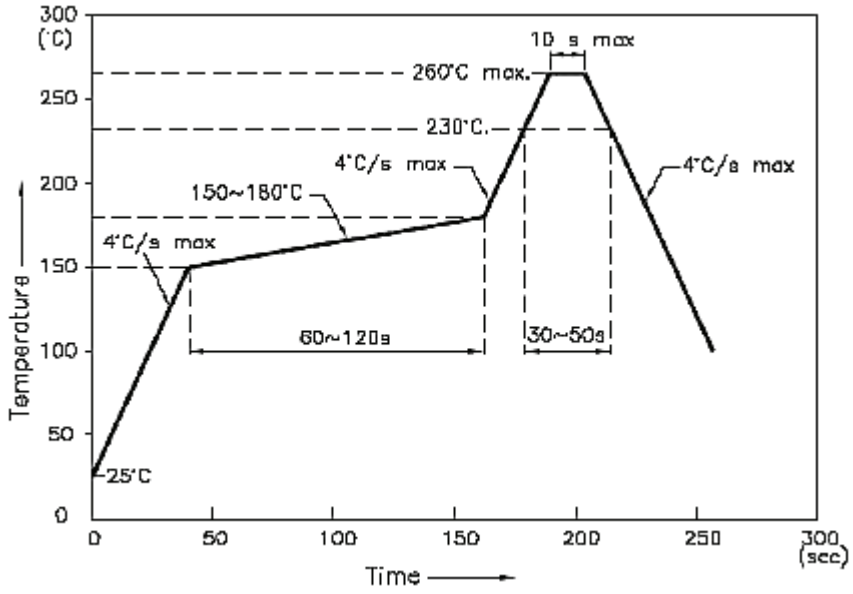
RECOMMENDED SOLDERING PROFILE

REFLOW PROFILE



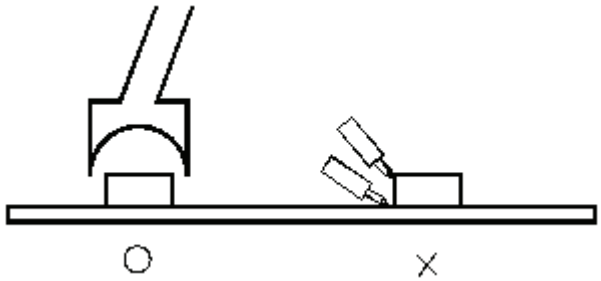
Notes:

1. We recommend the reflow temperature 245℃ (±5℃). The maximum soldering temperature should be limited to 260℃.
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℃. If temperature is higher, time should be shorter (+10℃ → -1sec). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230℃.

- Rework

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



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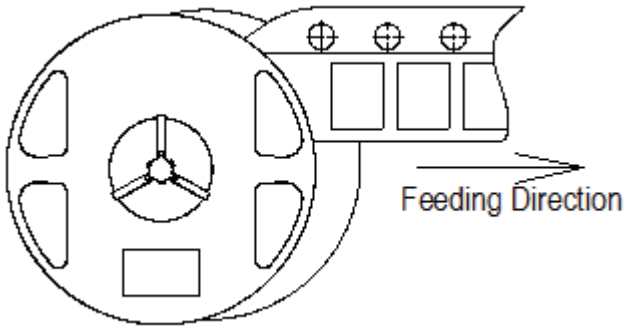
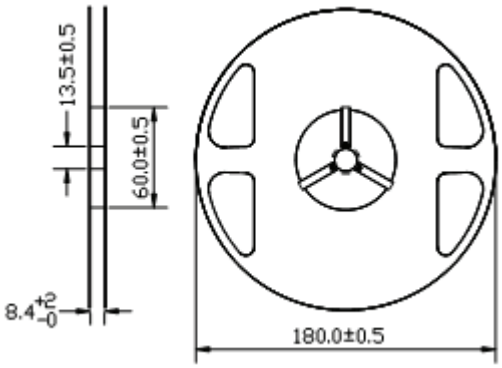
PACKAGING SPECIFICATIONS

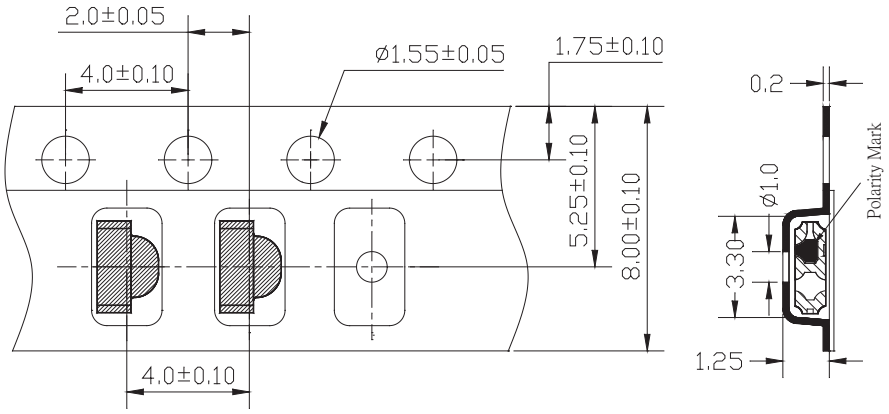
Feeding Direction



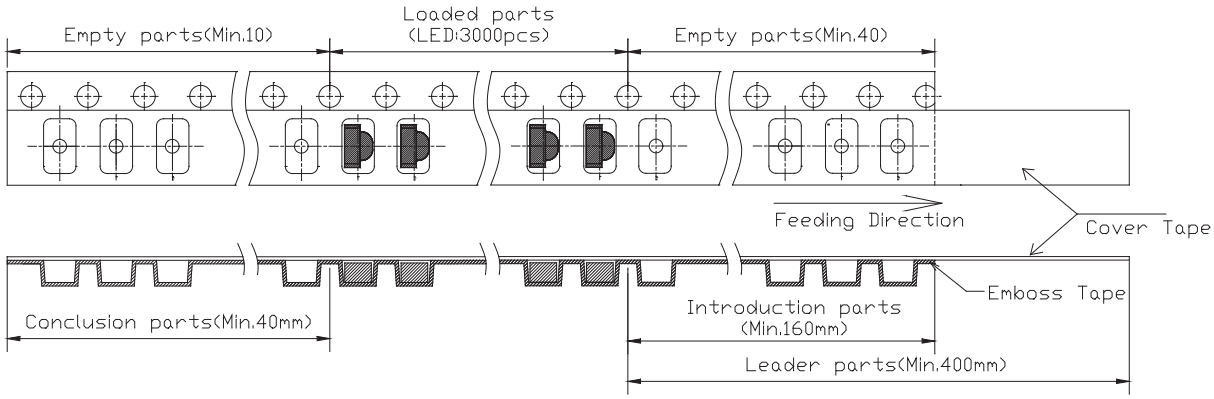
Dimensions of Reel (Unit: mm)



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 lamp is two.
3. The polarity mark is oriented towards the tape sprocket hole.
4. 3,000 pcs/Reel

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