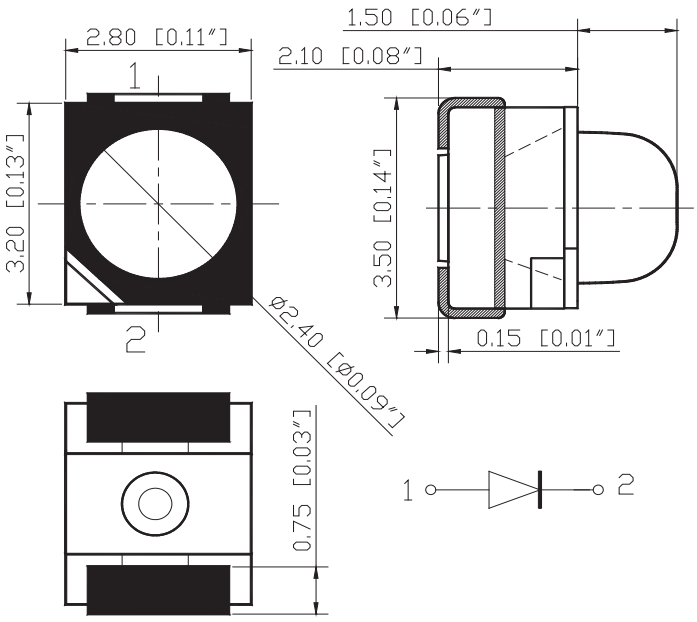
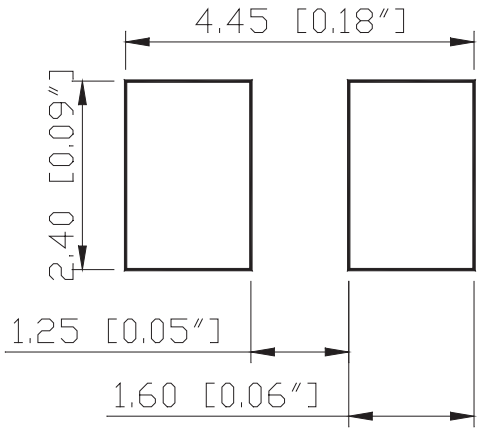
SPECIFICATION CSD1311R3C-B

PACKAGE OUTLINES



RECOMMENDED PAD LAYOUT



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwised noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSD1311R3C-B	InGaAlP	Red	Water Clear	30°

RoHS Compliant Lead Free

ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

ABSOLUTE MAXIMUM RATINGS (TA=25°C)

Parameter	Symbol	Max Rating	Unit
Forward Current	I_F	30	mA
Reverse Current @ 5V	I_R	10	μA
Power Dissipation	Pd	75	mW
Operating Temperature Range	T_{OP}	-40~+80	°C
Storage Temperature Range	T_{STG}	-40~+85	°C
Peak Pulsing Current (1/10 duty f = 10KHz)	I_{FP}	125	mA
Soldering Temperature	T_{SOL}	Max 260°C for 10 sec Max	

OPTICAL-ELECTRICAL CHARACTERISTICS (TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I_V	I_F = 20mA	3200	6000	-	mcd
Forward Voltage	V_F	I_F = 20mA	-	2.0	2.5	V
Reverse Leakage Current	I_R	V_R = 5V	-	10	-	μA
Viewing Angle at 50% Iv	2θ1/2	I_F = 20mA	-	30	-	Deg
Peak Wavelength	λ_P	I_F = 20mA	-	628	-	nm
Dominant Wavelength	λ_D	I_F = 20mA	615	620	630	nm

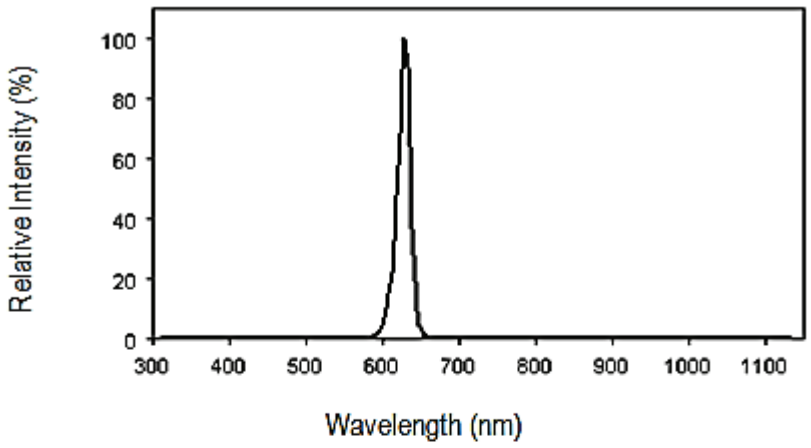
*Tolerance of viewing angle: -10 / +5 deg.

RoHS Compliant Lead Free

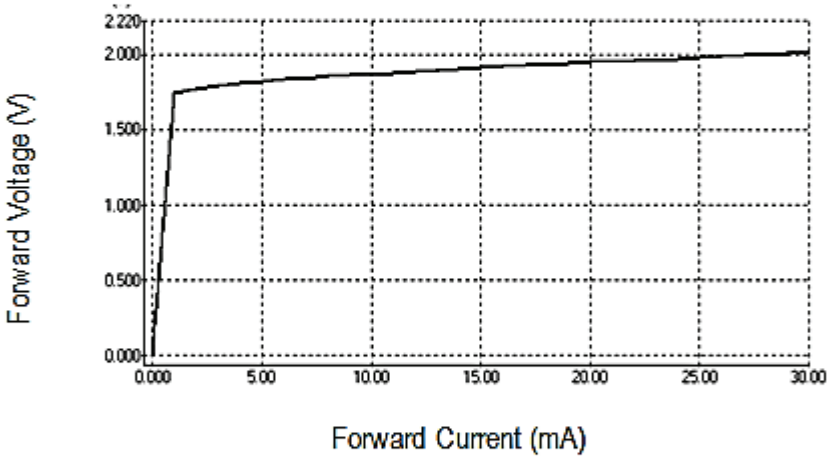
ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

OPTICAL CHARACTERISTIC CURVES

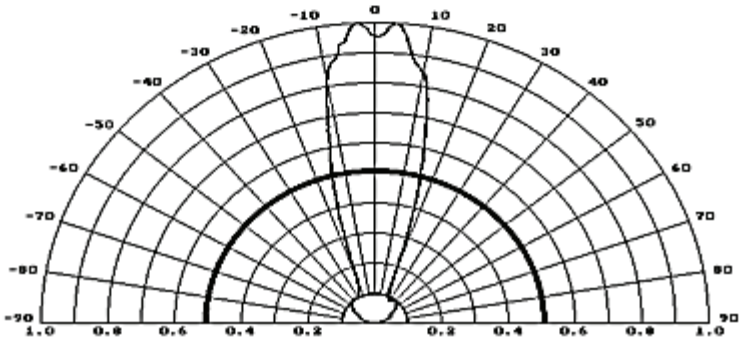
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



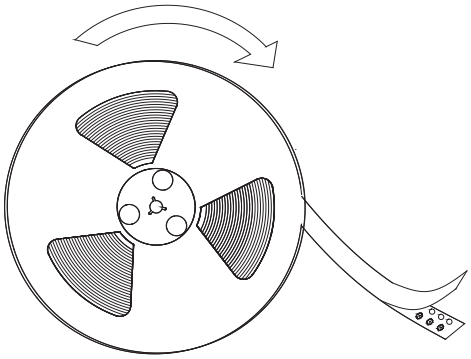
Directive Characteristics



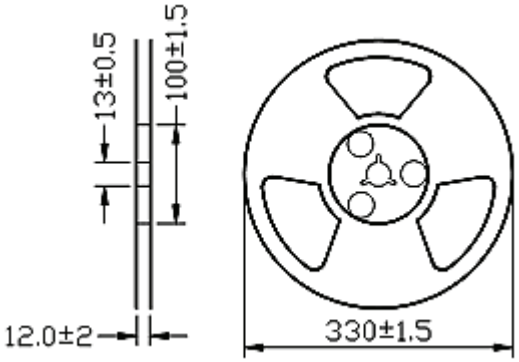
PACKAGING SPECIFICATION

PACKAGE SPECIFICATIONS

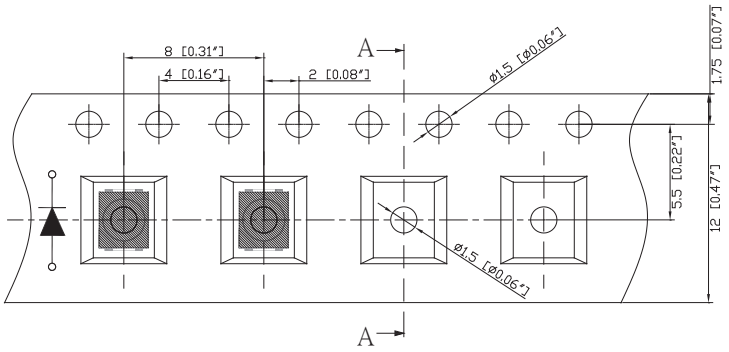
Feeding Direction

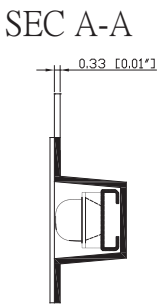


Dimensions of Reel (Unit: mm)

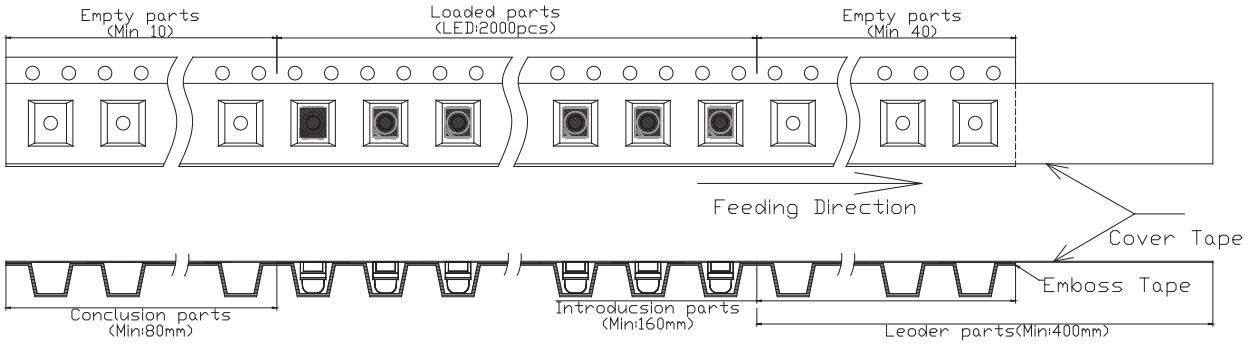


Dimensions of Tape (Unit: mm)





Arrangement of Tape



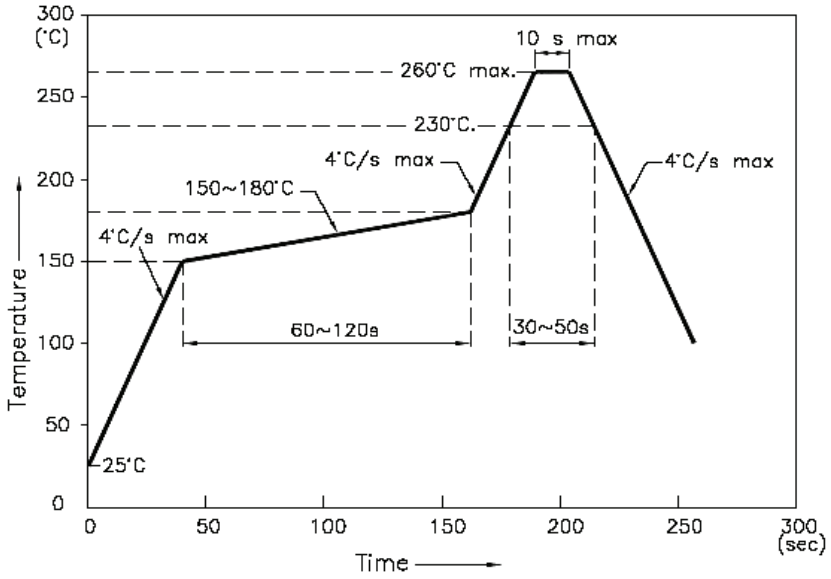
Notes:

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

SOLDERING CONDITIONS

REFLOW PROFILE

- Reflow Temp/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.