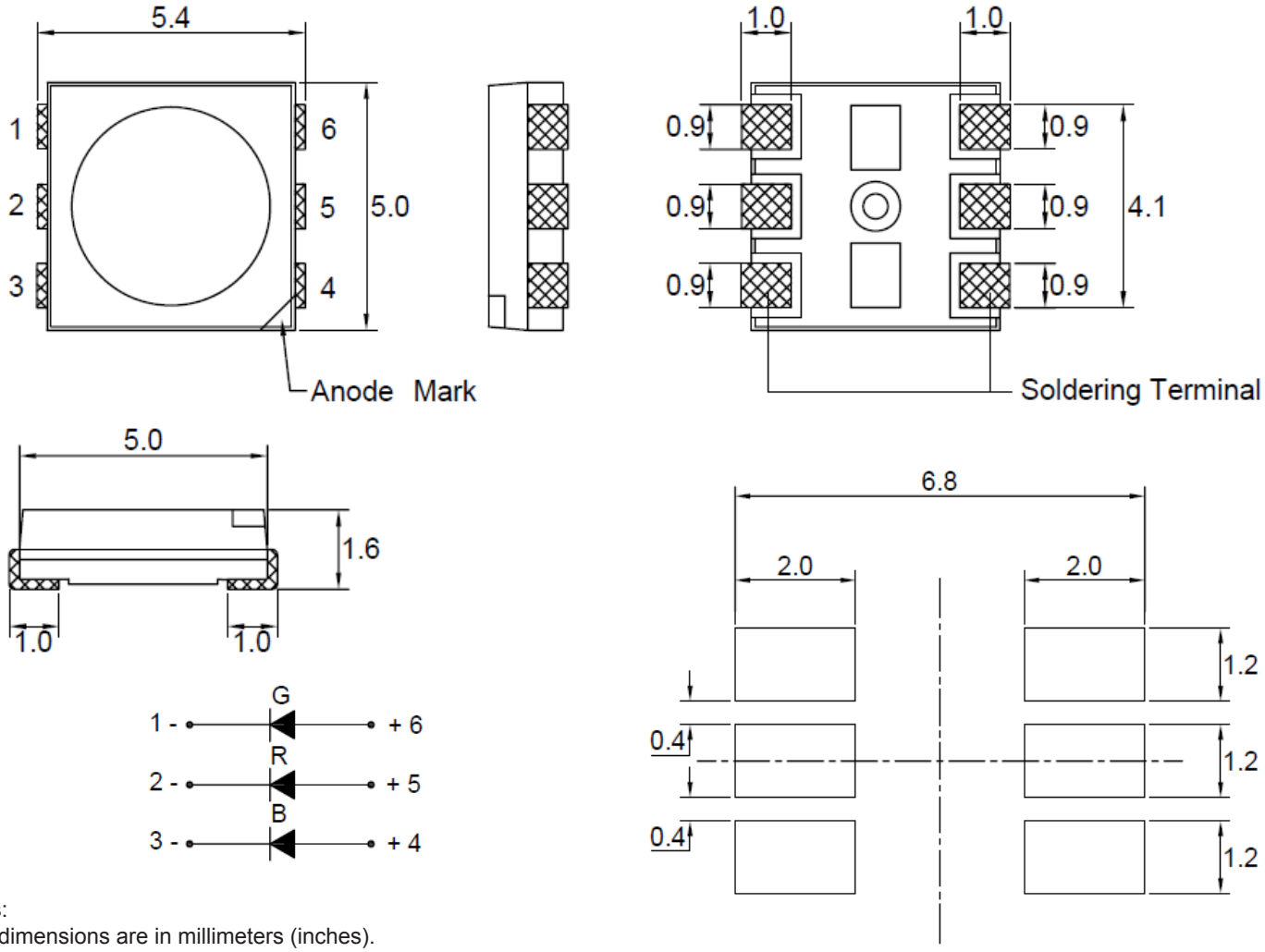
SPECIFICATION CSPT224R2B2GT2C

PACKAGE OUTLINES



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
CSPT224R2B2GT2C	InGaAlP	Red	Water Clear	120°
	InGaN	Blue	Water Clear	120°
	InGaN	Green	Water Clear	120°

ABSOLUTE MAXIMUM RATINGS (TA=25°C)

Parameter	Symbol	Max Rating		Unit
		Blue/ Green	Red	
Forward Current	IF	30	50	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	Pd	108	130	mW
Operating Temperature Range	TOP	-20~+80		°C
Storage Temperature Range	TSTG	-30~+100		°C
Peak Pulsing Current (tp ≤ 10 μ S, duty cycle = 0.005)	IFP	100	90	mA

OPTICAL-ELECTRICAL CHARACTERISTICS (TA=25°C)

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	Iv	IF = 20mA	Red	500	800	-	mcd
			Green	800	1250	-	
			Blue	125	320	-	
Forward Voltage	VF	IF = 20mA	Red	-	2.2	2.6	V
			Green	-	3.2	3.6	
			Blue	-	3.2	3.6	
Viewing Angle at 50% Iv	2θ1/2	IF = 20mA	-	-	120	-	Deg
Dominant Wavelength	λD	IF = 20mA	Red	-	624	-	nm
			Green	-	525	-	
			Blue	-	470	-	

*Tolerance of viewing angle: -10 / +5 deg.
*Tolerance of forward voltage is -/+ 0.05V
*Tolerance of luminous intensity -/+ 1nm

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

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (RED)

Fig.1 Forward current vs. Forward Voltage

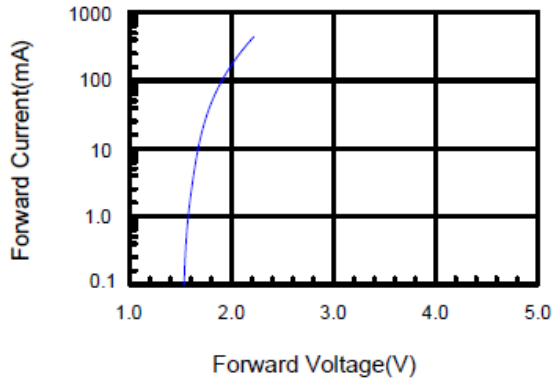


Fig.2 Relative Intensity vs. Forward Current

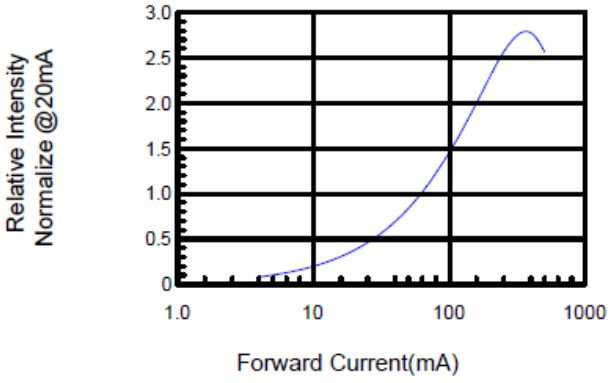


Fig.3 Forward Voltage vs. Temperature

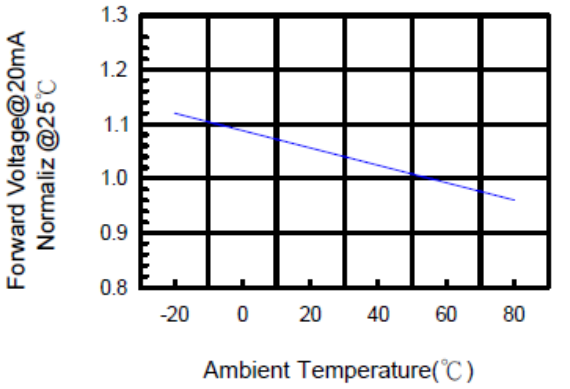


Fig.4 Relative Intensity vs. Temperature

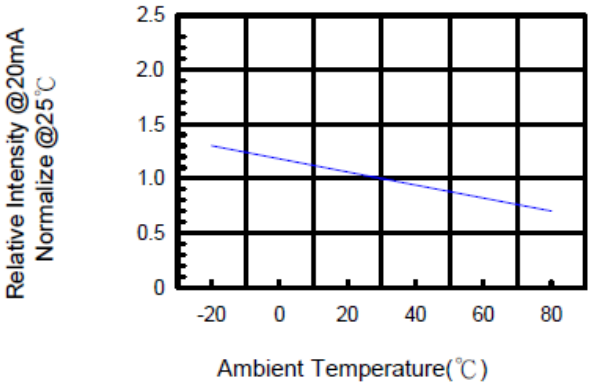


Fig.5 Relative Intensity vs. Wavelength

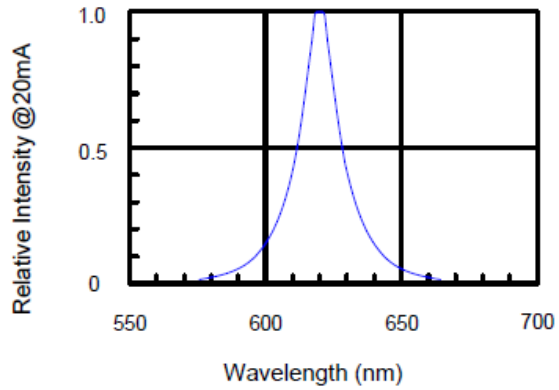
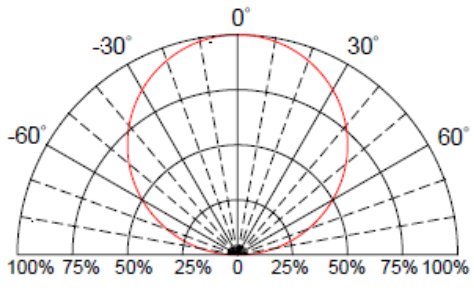


Fig.6 Directive Radiation



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

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (GREEN)

Fig.1 Forward current vs. Forward Voltage

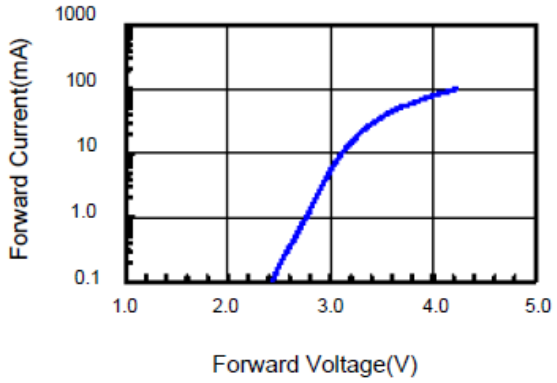


Fig.2 Relative Intensity vs. Forward Current

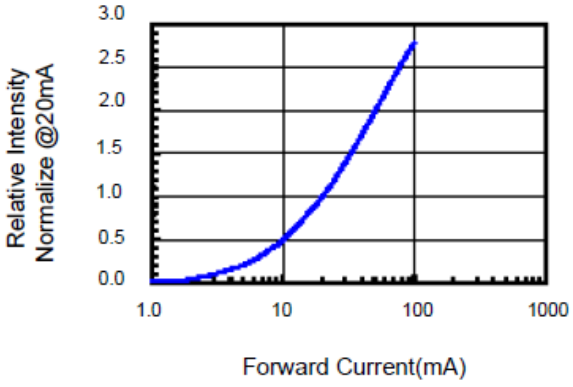


Fig.3 Forward Voltage vs. Temperature

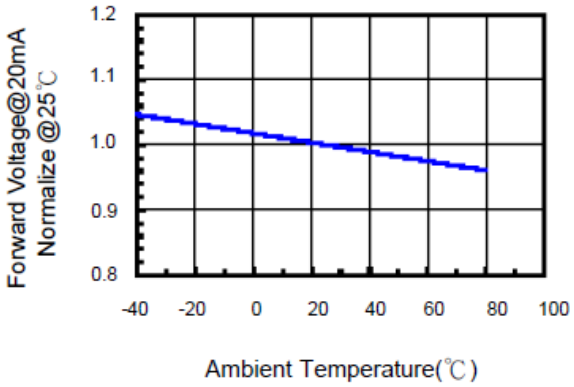


Fig.4 Relative Intensity vs. Temperature

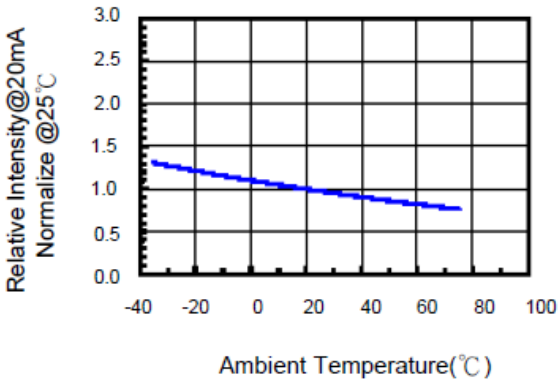


Fig.5 Relative Intensity vs. Wavelength

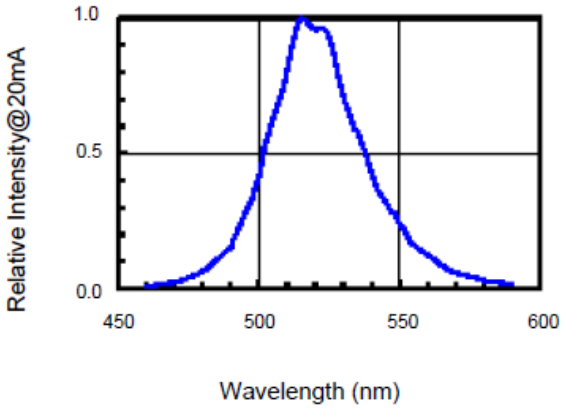
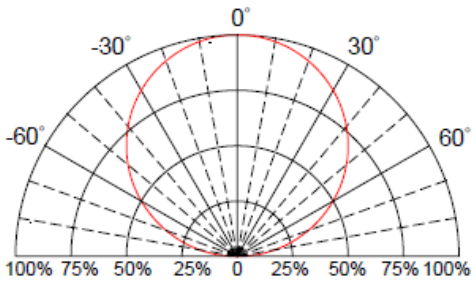


Fig.6 Directive Radiation



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

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (BLUE)

Fig.1 Forward current vs. Forward Voltage

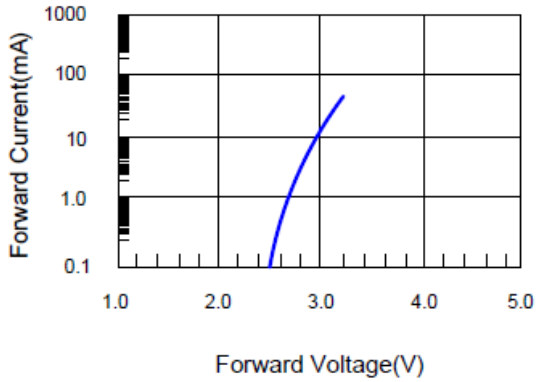


Fig.2 Relative Intensity vs. Forward Current

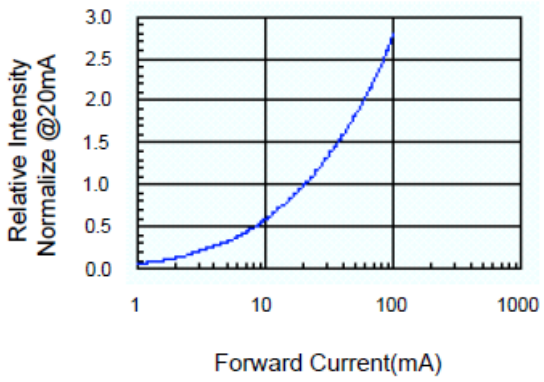


Fig.3 Forward Voltage vs. Temperature

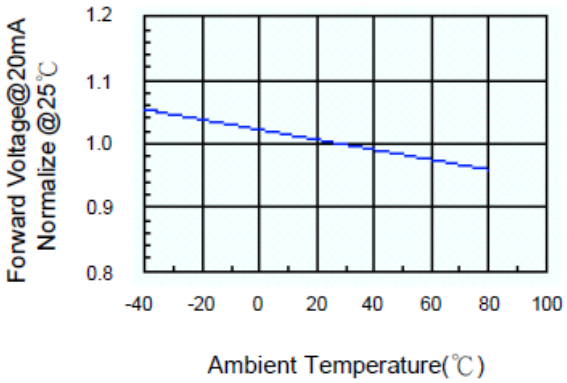


Fig.4 Relative Intensity vs. Temperature

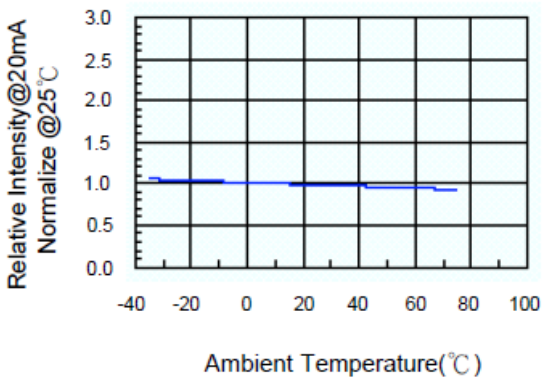


Fig.5 Relative Intensity vs. Wavelength

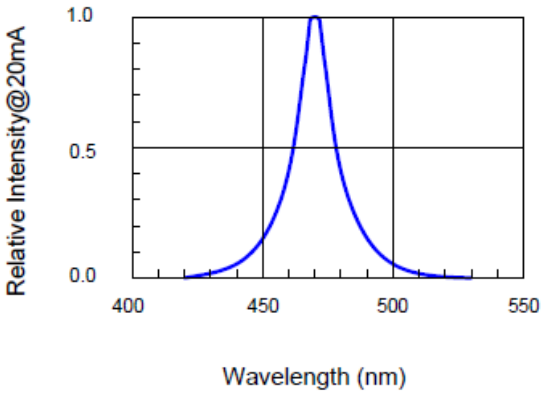
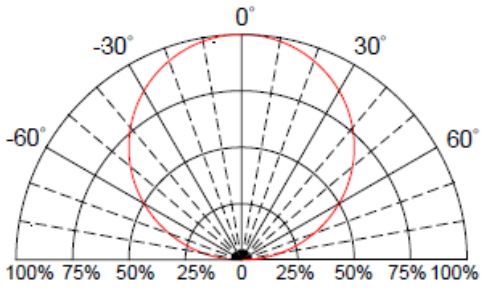


Fig.6 Directive Radiation



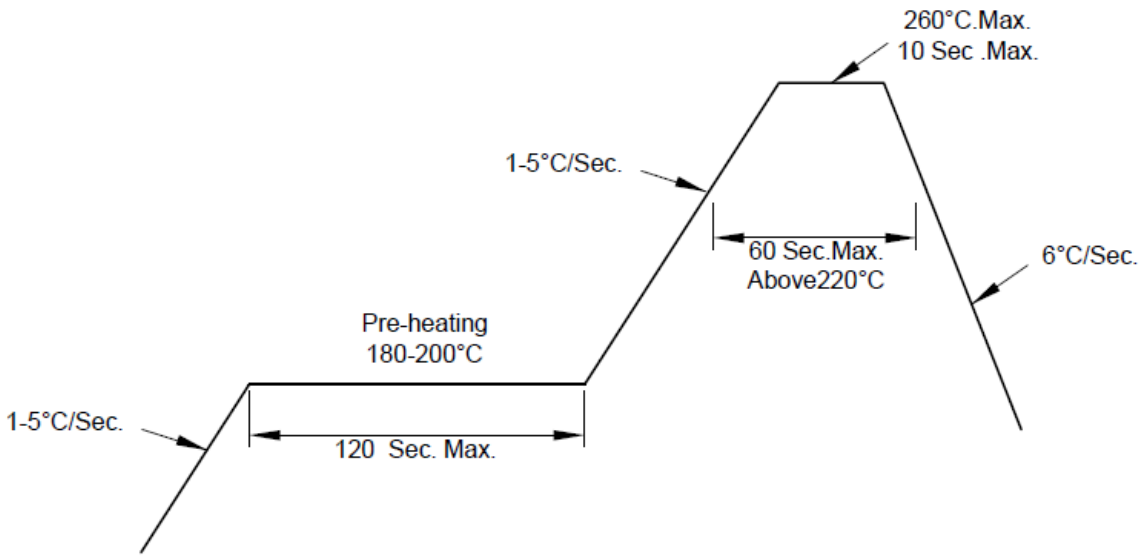
RoHS Compliant
Lead Free

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

SOLDERING CONDITIONS

Pb-Free solder temperature profile

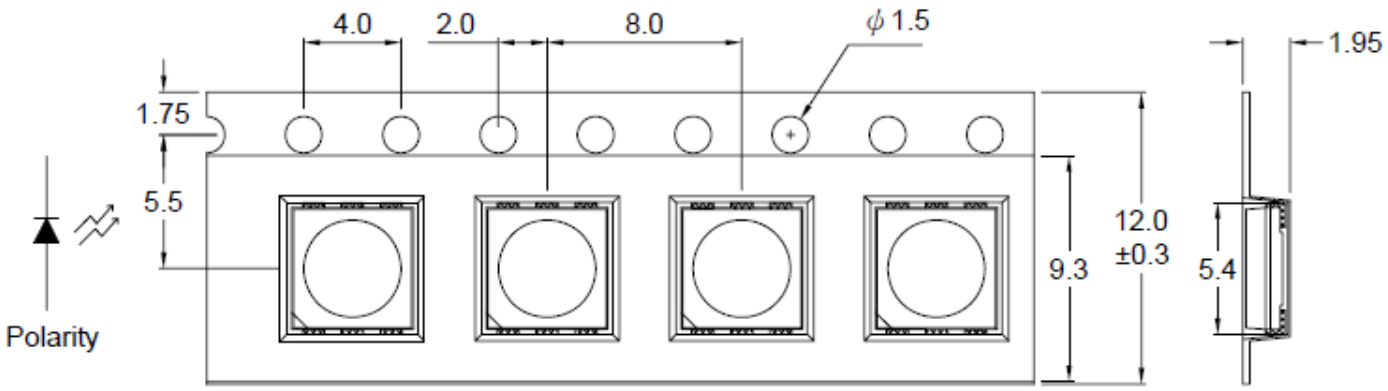
Pb -free solder Temperature profile	
Pre-heat	180-200°C
Pre-heat time	120 Sec Max
Peak-Temperature	260°C Max
Soldering time condition	10 Sec Max



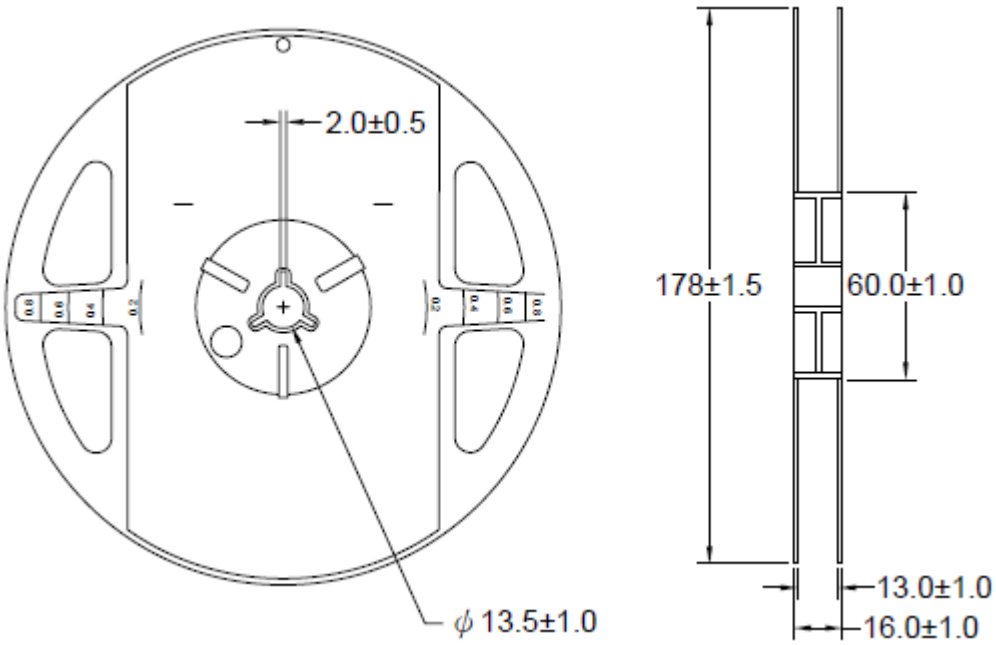
- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the Characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.

REEL PACKAGING

CARRIER TAPE DIMENSIONS



REEL DIMENSION



Notes:

1. 12.0mm tape, 7” Reel; 1,000 pcs/reel
2. Tolerance unless mentioned is ±0.2mm