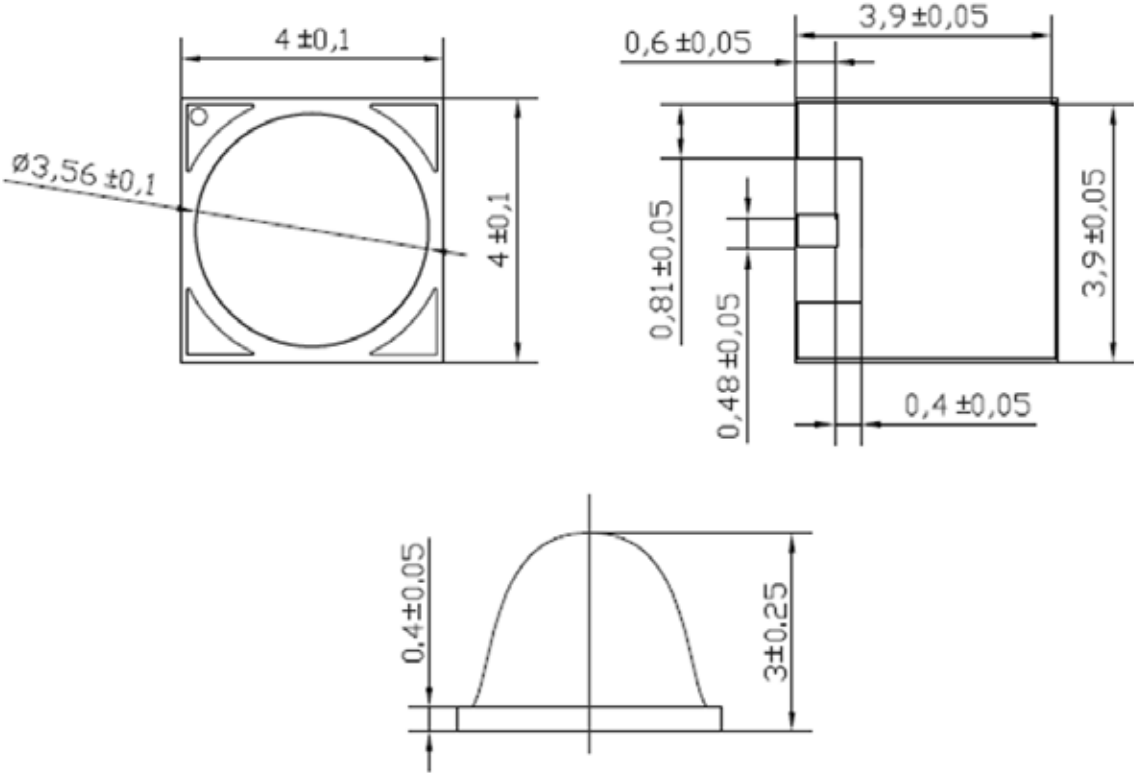


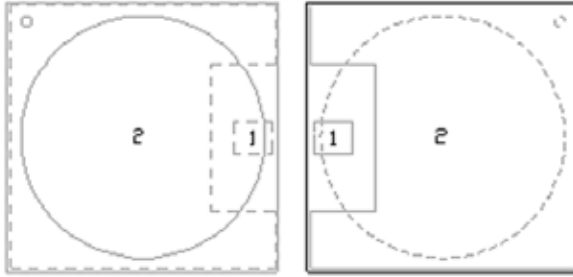
SPECIFICATIONS **CSHD1414IR850C-40D**
MECHANICAL DIMENSIONS


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

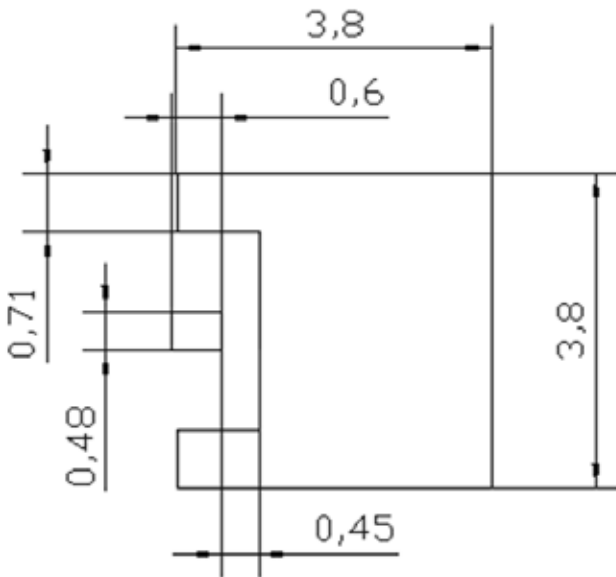
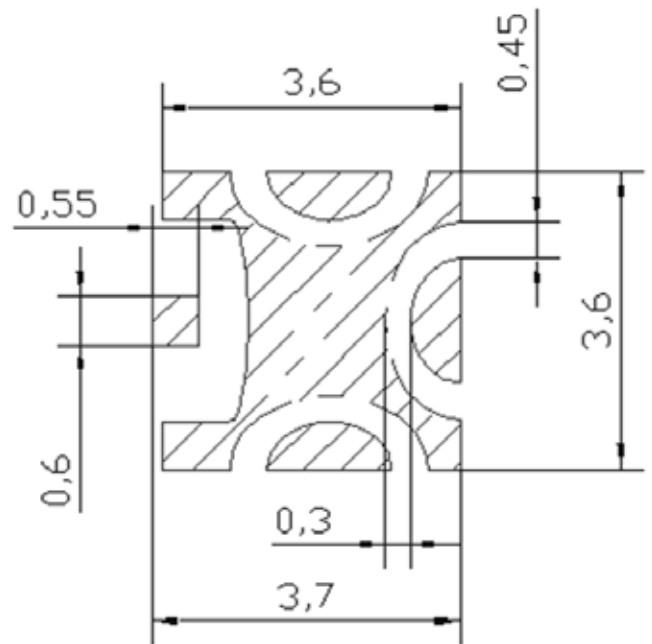
Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSHD1414IR850C-40D	AlGaAs	IR	Water Clear	40°



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RECOMMENDED SOLDER PATTERN
PAD CONFIGURATION

TOP
BOTTOM

PAD	Function
1	Cathode
2	Anode, Thermal


MCPCB LAYOUT

SOLDER MASK

Note: unit (mm); tolerance ± 0.05



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation per Dice	P _D	2.5	W
Continuous Forward Current per Dice	I _F	1000	mA
Peak Current per Dice (duty cycle 1/10, 1kHz)	I _{PF}	1500	mA
Thermal Resistance, Junction-Case	R _{TH, J-C1}	5	°C/W
Operating Temperature	T _{OPR}	-40~+80	°C
Storage Temperature	T _{STG}	-40~+120	°C

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

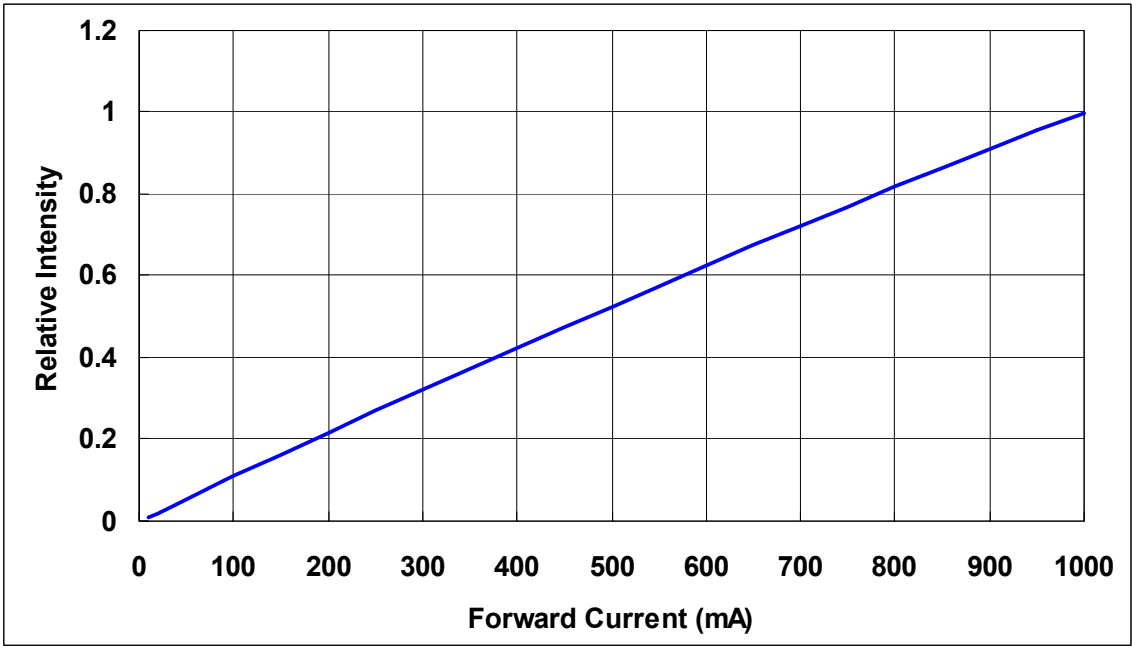
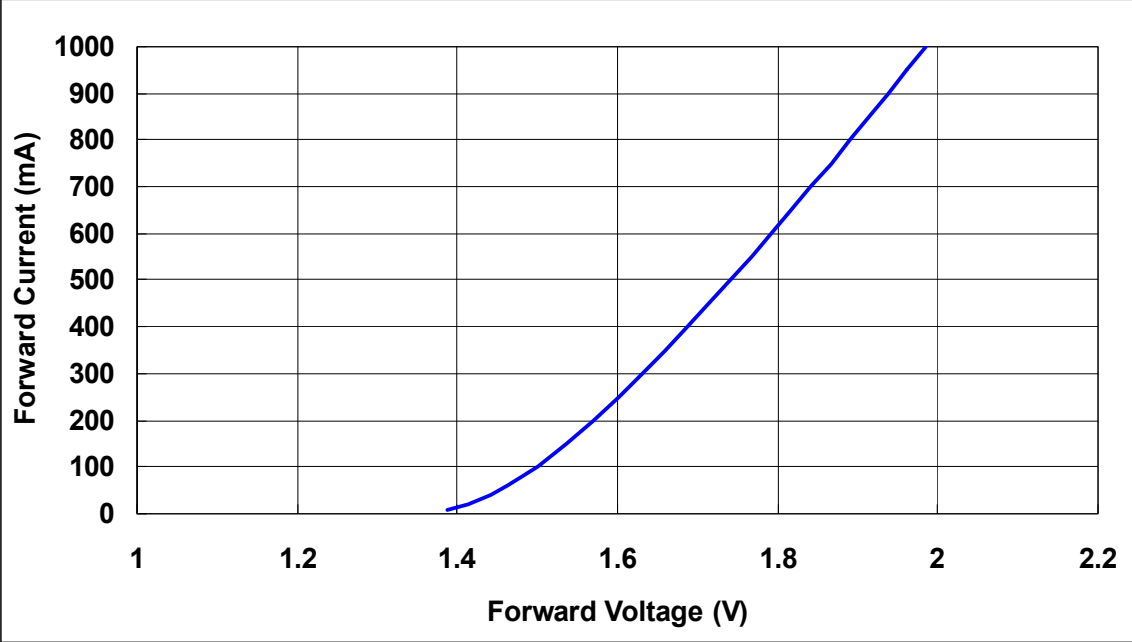
Characteristic	Symbol	Condition	Value			Unit
			Min.	Type.	Max.	
Forward Voltage per Dice	V _F	I _F = 1000mA	-	1.9	-	V
Peak Wavelength per Dice	λ _P		840	855	870	nm
Radiant Flux	Φ _E		500	800	-	mW
Radiant Intensity	I _E		-	720	-	mW/sr
Viewing Angle	2θ 1/2		-	40	-	Deg

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



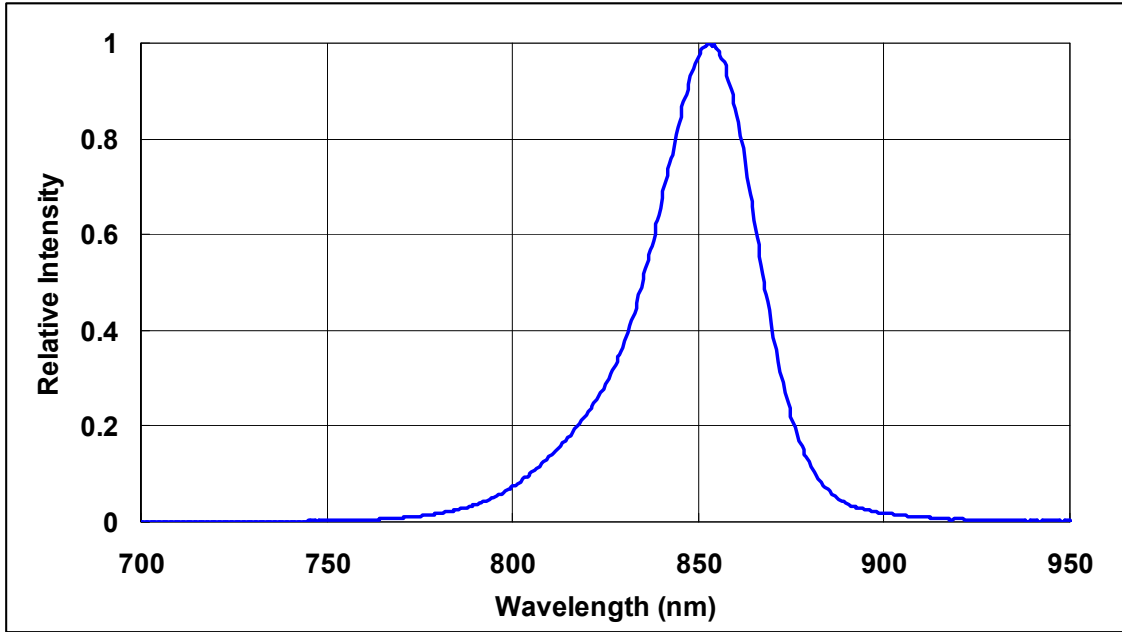
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OPTICAL CHARACTERISTIC CURVES

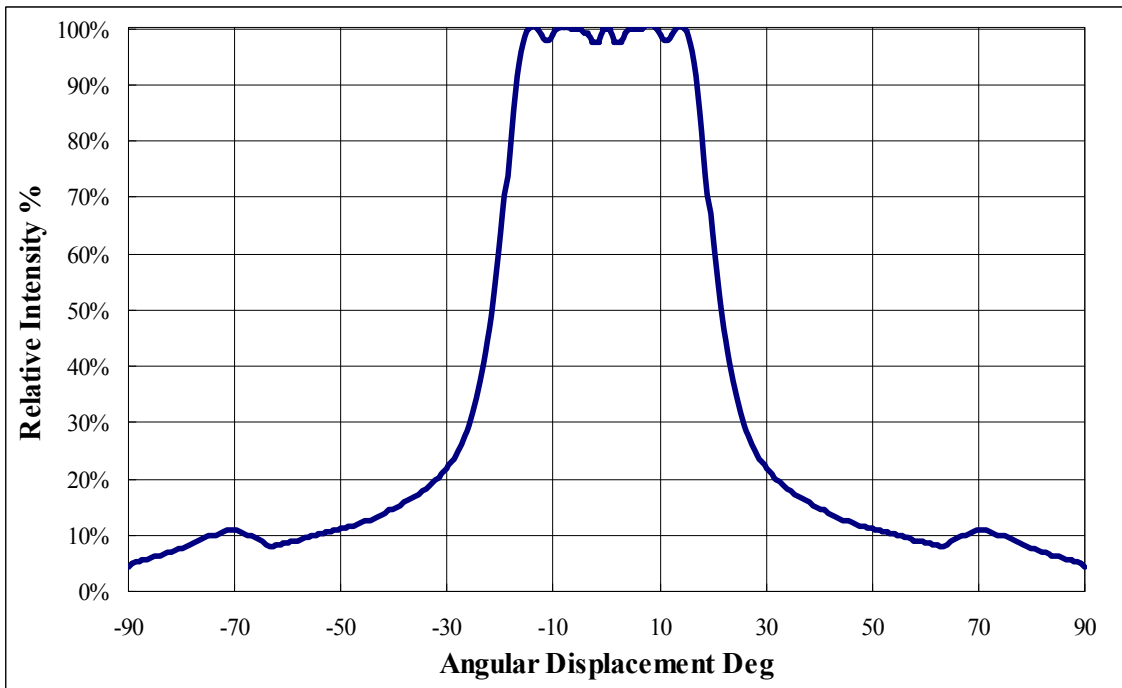


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OPTICAL CHARACTERISTIC CURVES

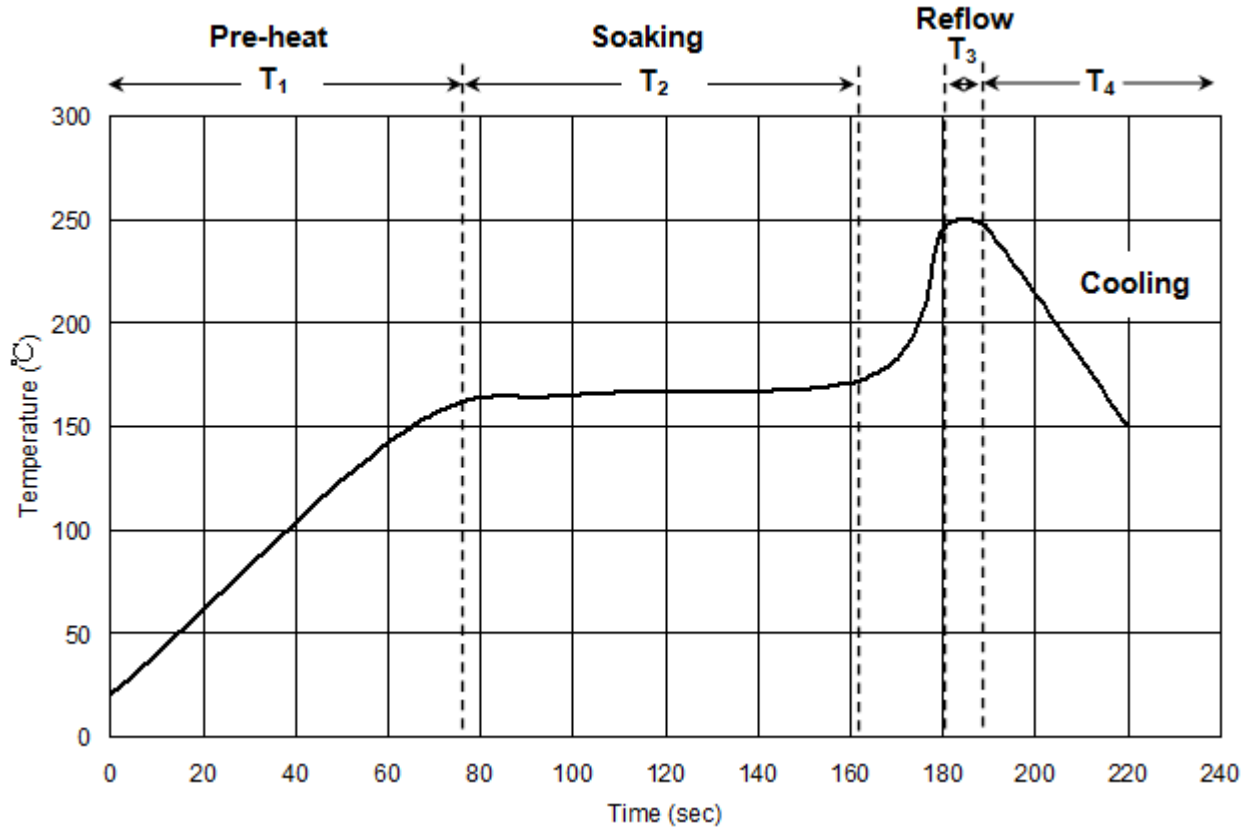


TYPICAL RADIATION PATTERN



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REFLOW SOLDERING CHARACTERISTICS



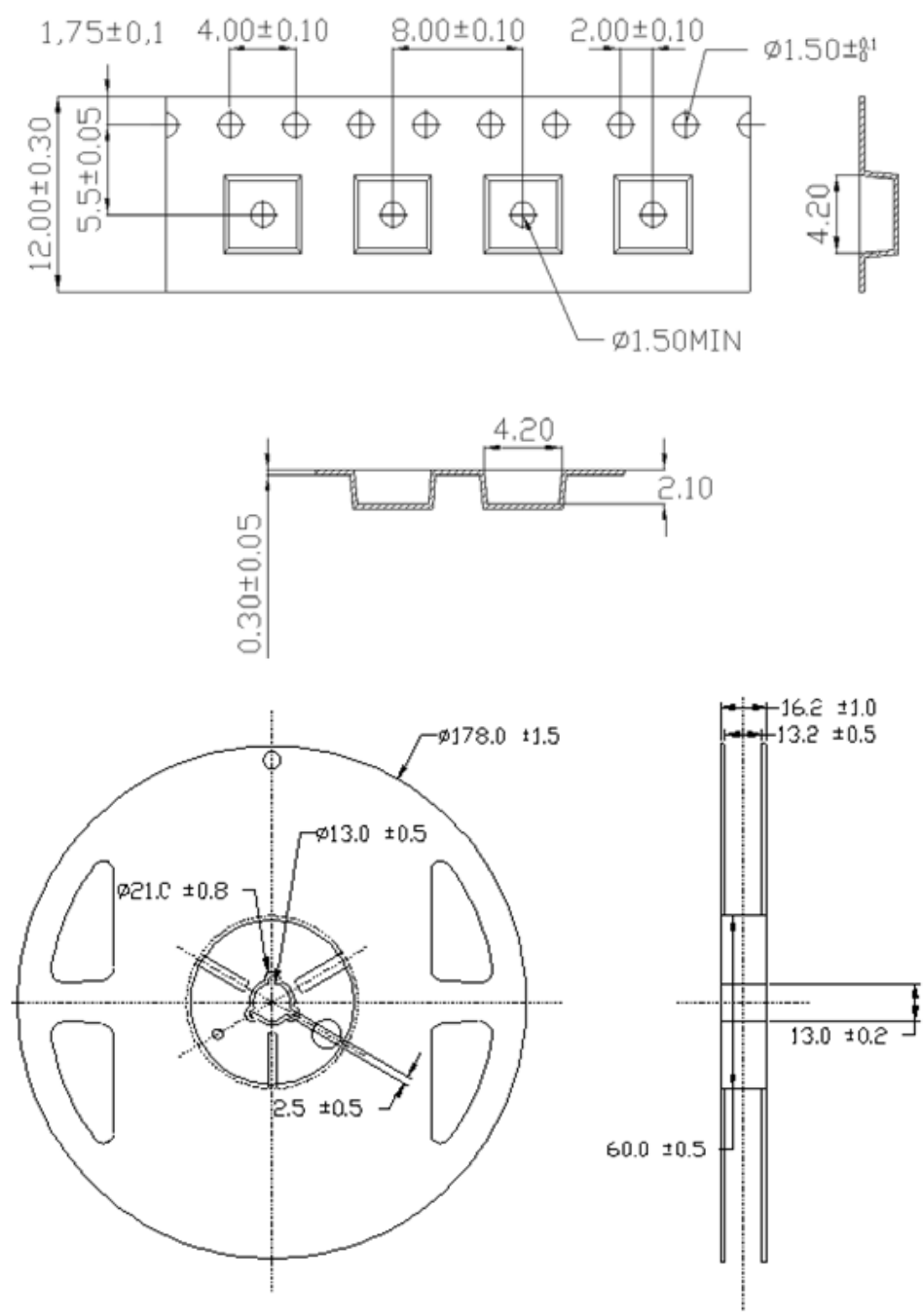
T1	Ramp up rate	1.0~3.0 °C/sec
	Pre-heat time	50~80 sec
T2	Soaking temperature	155~185 °C
	Dwell time during soaking	60~120 sec
T3	Reflow temperature	240~250 °C
	Reflow time	Max 10 sec
T4	Ramp up rate during reflow	1.2~2.3 °C/sec
	Cooling	1.0~6.0 °C.sec

Note: suggest using Sn96Ag3Cu0.5 lead free solder



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PACKAGE DIMENSIONS (Unit: mm)



Notes:

1. Unit (mm)
2. Ship in moisture proof bag
3. 1 Reel/Bag
4. 700 (max)/Reel



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