

SMD 3535 5W TG2 Series Data Sheet

SOL-3535X500-TG2



TG2-3535 is a High-Power 1~5 W LED of SOL LED , through the latest LED packaging technology , it contains many features as high luminous efficiency, resistance to high current and low thermal resistance ect.

➤ Features:

- Ceramic substrates package
- According to the ANSI standard colour gamut
- ESD protection
- Size:3.50mm×3.50 mm
- Compatible wiht SMT
- Typical Color Temperature and Luminous Flux:

6500K 170lm@350mA 25°C

5000K 160lm@350mA 25°C

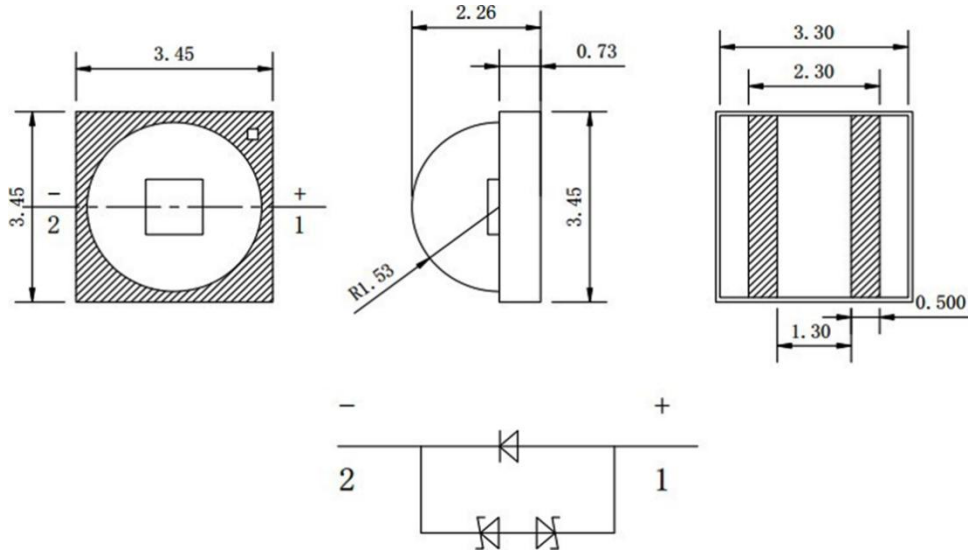
3000k 140lm@350mA 25°C

➤ Application:

- Indoor lighting
- Outdoor lighting
- Entertainment lighting
- Commercial lighting



➤ Outline Dimensions:



Soldering pads reference

Note:

- Please strictly refer to the positive and negative of the product
- Unit: mm. Tolerance: ± 0.05

➤ Electro Characteristics (T solder pad =25 °C) :

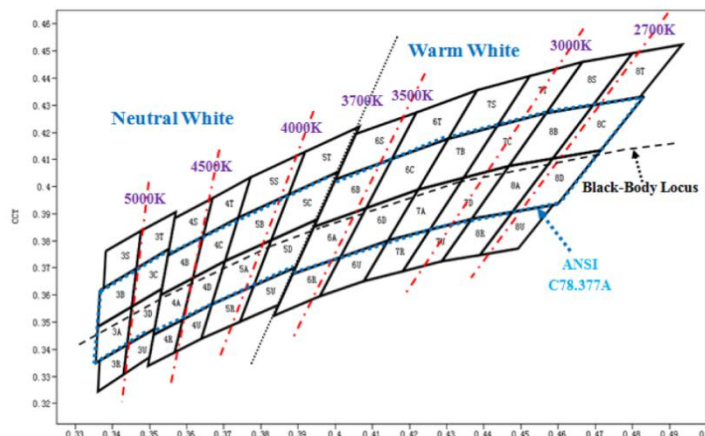
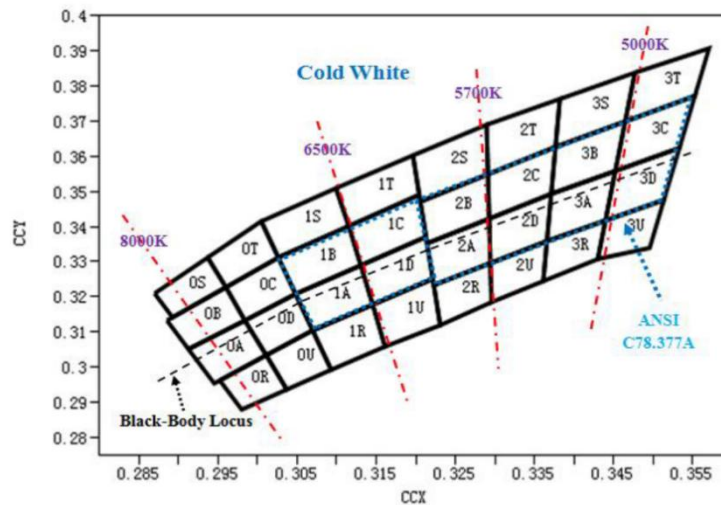
Parameter	Symbol	Min.	Typ.	Max.	Unit	conditions
Luminous Flux	Φ	130	170	180	lm	IF=350mA & 25°C
Forward Voltage	VF	2.8	2.9	3	V	
Forward Current	IF		350	1500	mA	
Reverse Voltage	VR			5	V	
Colour TEMP (CW/NW)	CCT		6500/5000		K	
Colour TEMP (WW)	CCT		3000		K	
CRI (CW/NW)	Ra		70			
CRI (WW)	Ra		70/80			
Viewing Angle	2 θ 1/2		120		°	
Thermal Resistance			4		°C/W	
Human Body Model	ESD		8000		V	
Junction TEMP	Tj			150	°C	

➤ Luminous Flux Characteristics (T_{solder pad} = 25 °C) :

Color TEMP	CCT		Luminous Flux@25° C				
	Min.	Max.	BIN	Flux lm@350mA	Flux lm@700mA	Flux lm@1.0A	Flux lm@1.5A
Cold White	5000K	8000K	S5	172~182	320	432	595
			S4	164~172	306	413	569
			S3	156~164	288	389	536
Neutral White	3700K	5000K	S4	164~172	310	420	580
			S3	156~164	296	400	552
			S2	148~156	278	375	518
Warm White	2600K	3700K	S2	148~156	282	374	527
			R5	139~148	268	355	500
			R4	130~139	249	331	465

- Note: It maintains a tolerance of $\pm 7\%$ on luminous flux measurements

➤ Bins Regim:



The Chromaticity And Color Temperature Table(K)	
Typical Color Temperature	Chromaticity Areas
2700	8A, 8B, 8C, 8D
3000	7A, 7B, 7C, 7D
3500	6A, 6B, 6C, 6D
4000	5A, 5B, 5C, 5D
4500	4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U
5000~5700	2C, 2D, 2T, 2U, 3A, 3B, 3R, 3S
5700~6500	1C, 1D, 1T, 1U, 2A, 2B, 2R, 2S
6500~8000	0A, 0B, 0C, 0D, 0R, 0S, 0U, 0T, 1A, 1B, 1R, 1S

2. Luminance Bins

Bin	Min.	Max.	Condition
R5	139	148	T solder pad = 25°C IF=350 mA
S2	148	156	
S3	156	164	
S4	164	172	
S5	172	182	

Note: It maintains a tolerance of $\pm 7\%$ on luminous flux measurements.

3. CRI Bins

BIN	Range
B0	67~100
B1	70~100
H1	80~100

Note: It maintains a tolerance of ± 2 on CRI measurements.

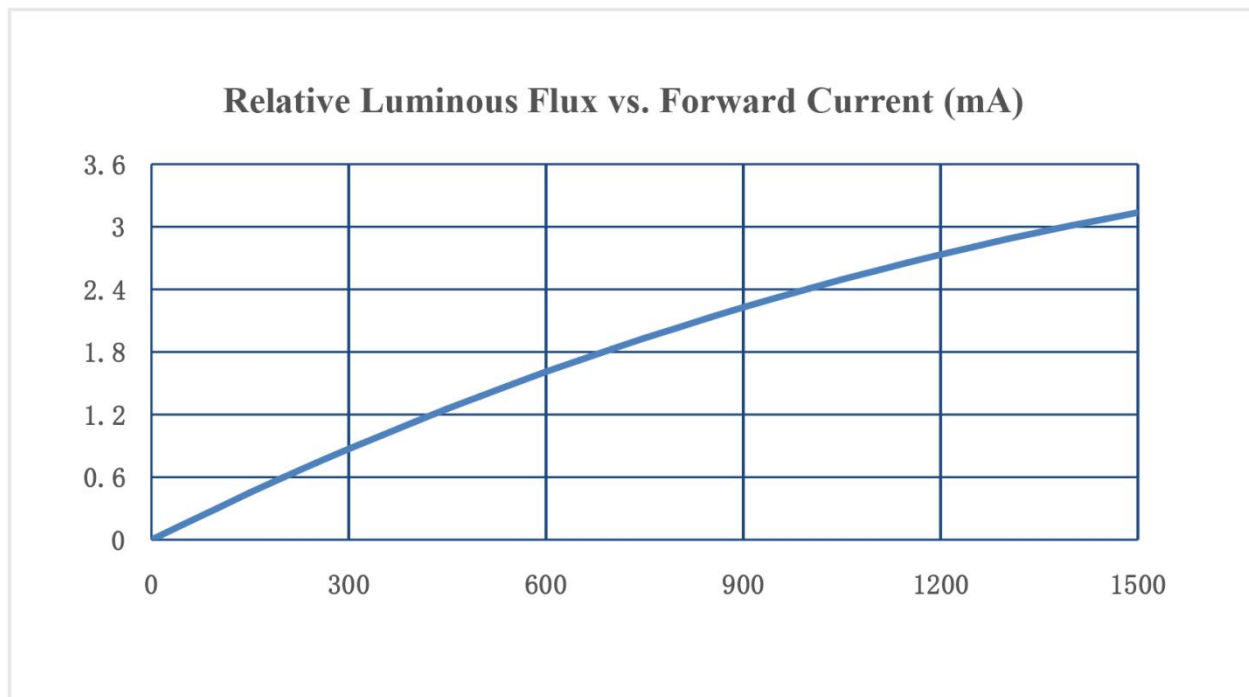
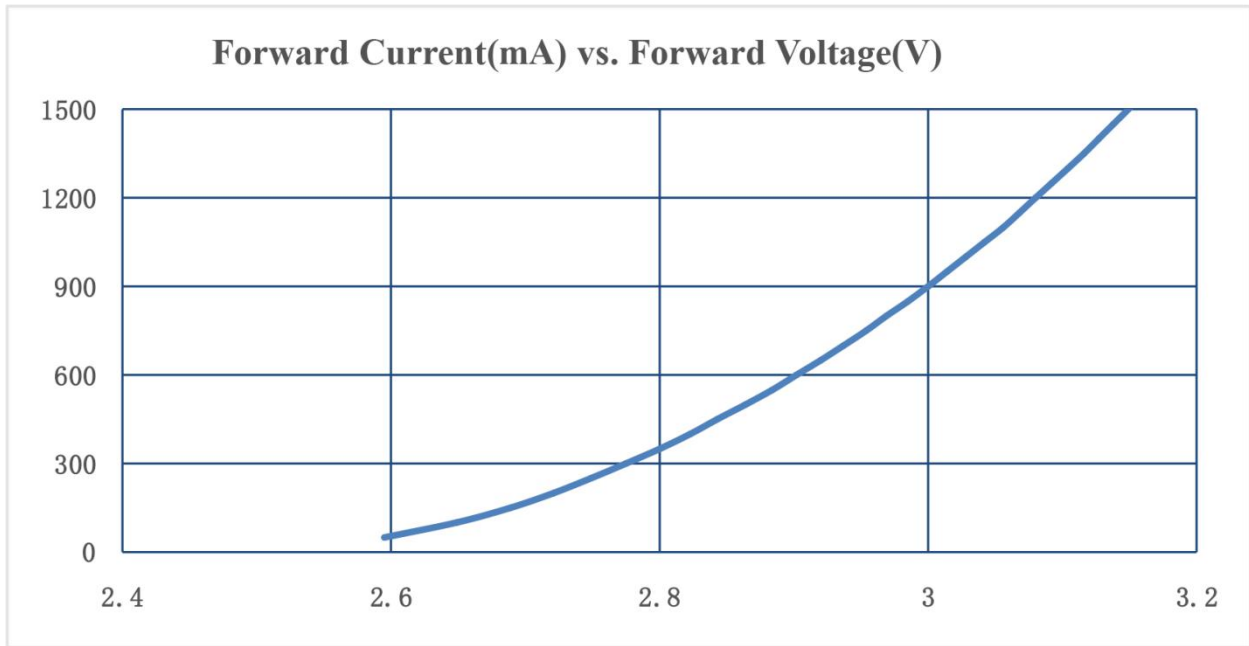
4. Voltage Bins

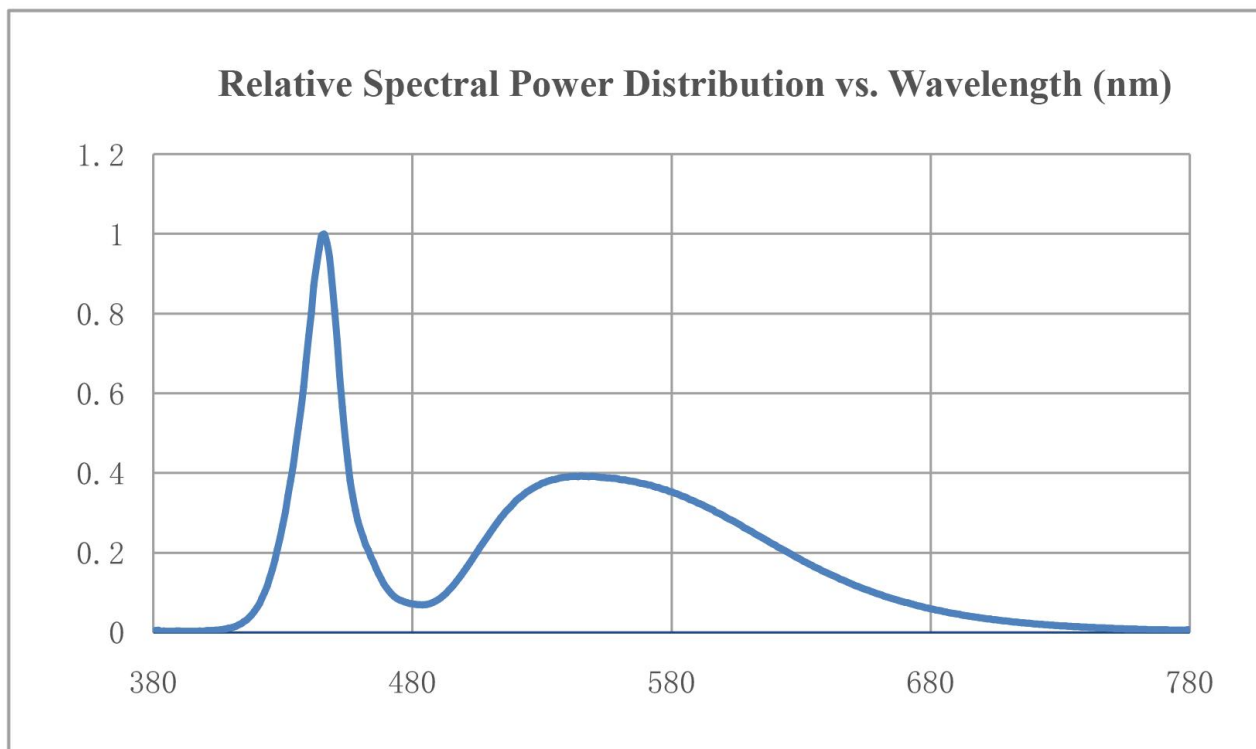
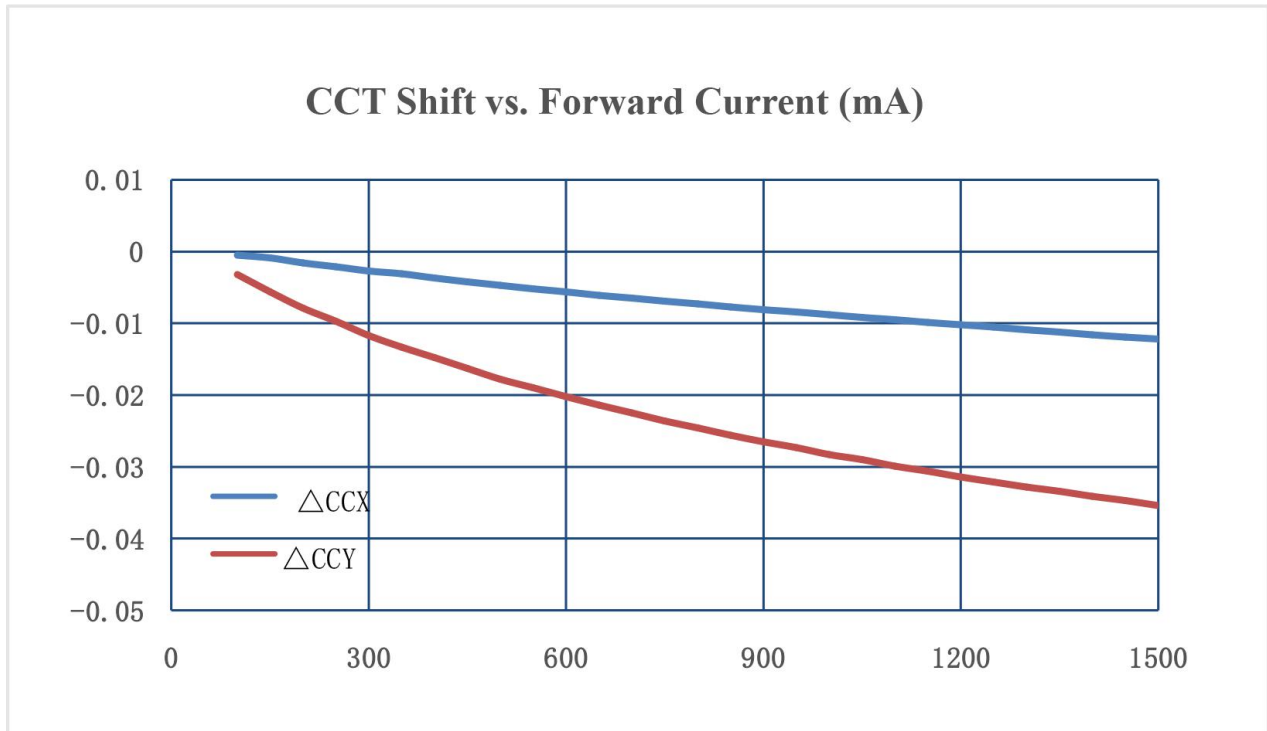
BIN	Range
U0	2.8~3.0
U1	3.0~3.2
U2	3.2~3.4

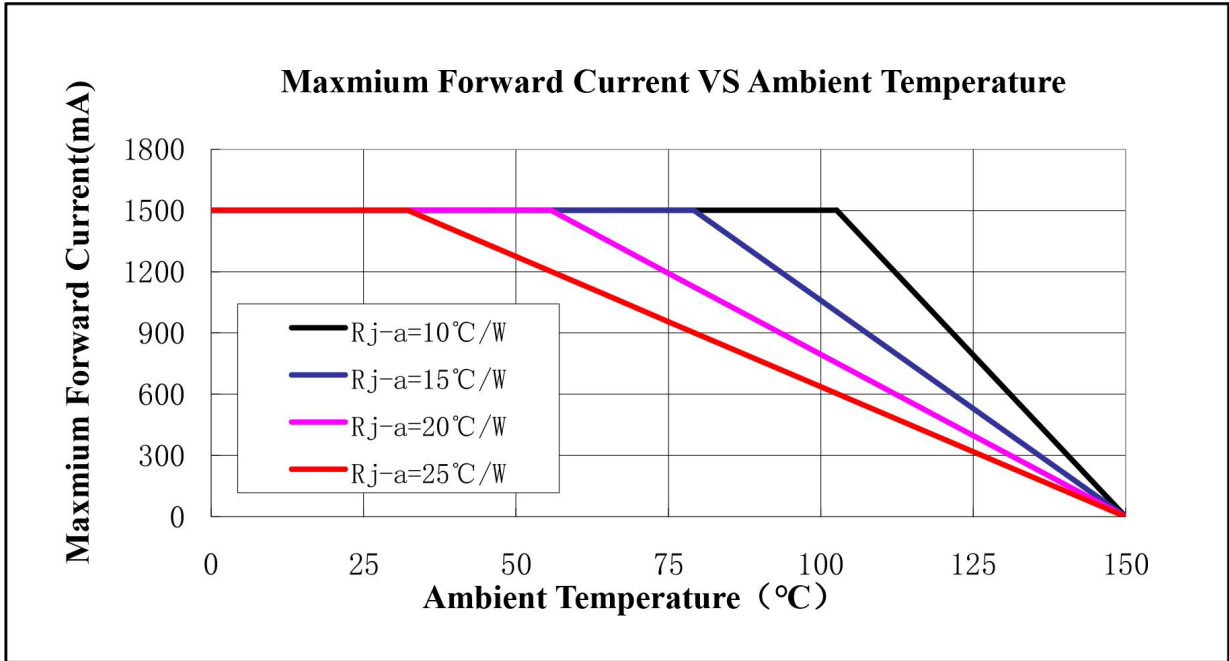
Note: It maintains a tolerance of ± 0.1 on voltage measurements.

➤ **The Photoelectric Characteristics Graph (Tj= 25 °C, 6300K) :**

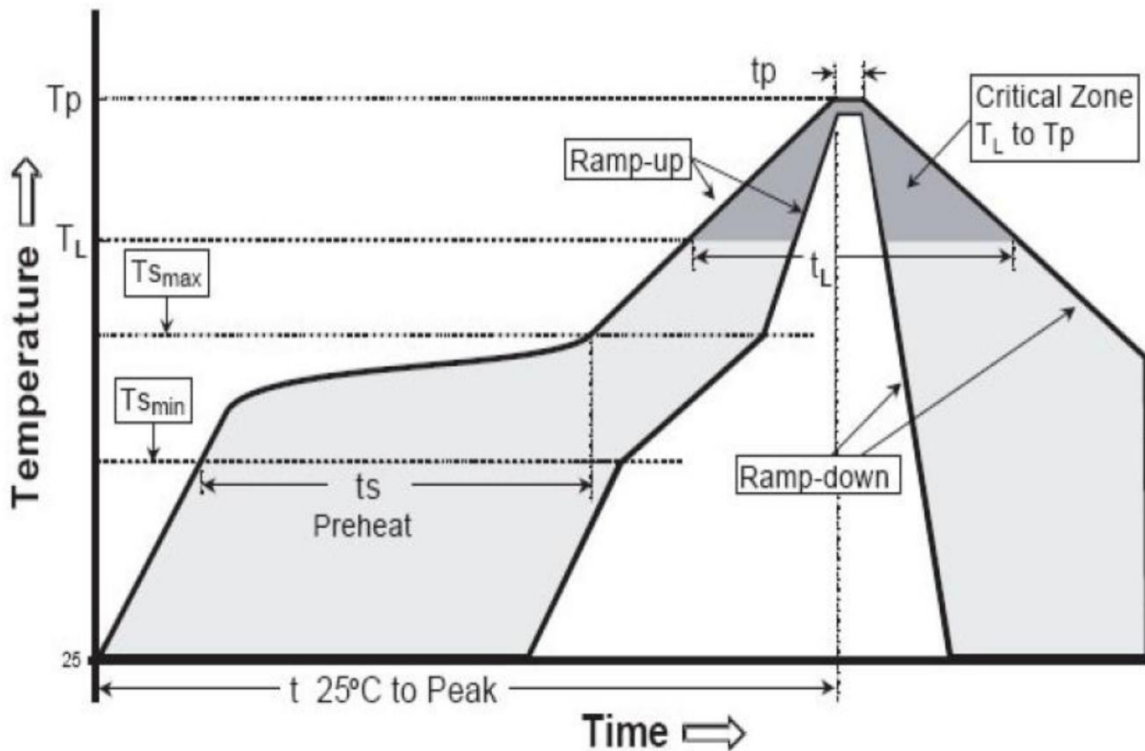
Safe use advised within the scope of photoelectric curve







➤ Reflow Soldering Temperature Graph:

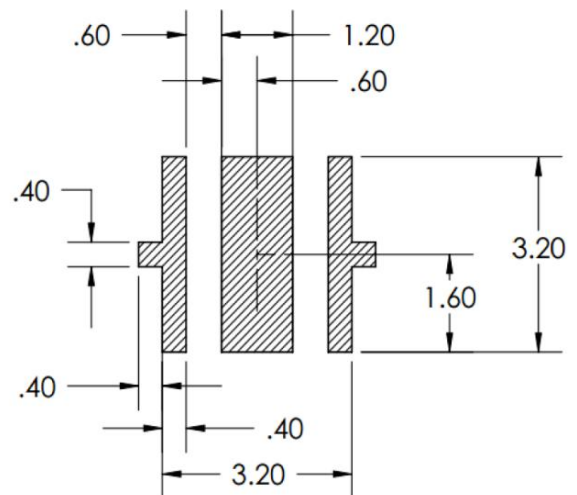
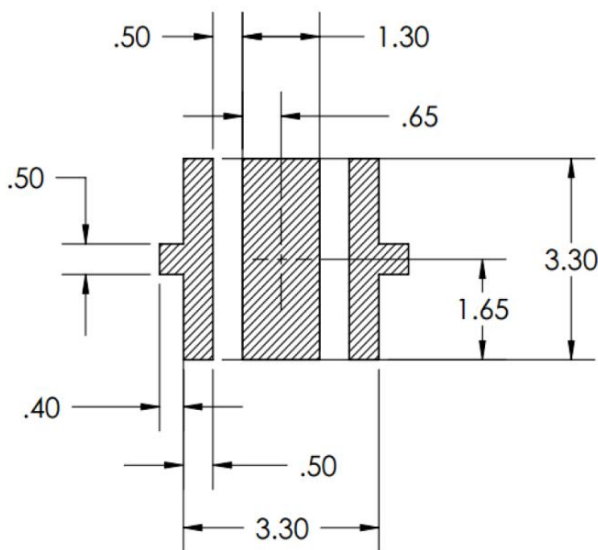


Profile Feature	Lead-Based Solder	Lead-Free Solder
Average Ramp-Up Rate (T _{max} -T _p)	3°C/second max	3°C/second max
Preheat: Temperature Min (T _{min})	100°C	150°C
Preheat: Temperature Max (T _{max})	150°C	200°C
Preheat: Time (t _{min} -t _{max})	60~120 seconds	60~180 seconds
Temperature (TL)	183°C	217°C
Time Maintained Above TL (tL)	60~150 seconds	60~150 seconds
Peak Temperature (T _p)	215°C	260°C
Time Within 5°C of Actual Peak Temperature (t _p)	10~30 seconds	20~40 seconds
Ramp-Down Rate	6°C/second max.	6°C/second max.
Time 25°C up to Peak Temperature	6 minutes max.	8 minutes max.

Note:

- All temperature refers to the package surface temperature, the data measured on the surface of encapsulation.
- The reflow curve is for reference, not suitable for all the PCB design and reflow soldering equipment.
- Other matters refer to the,Precaution for use

➤ PCB Pad Dimensions:

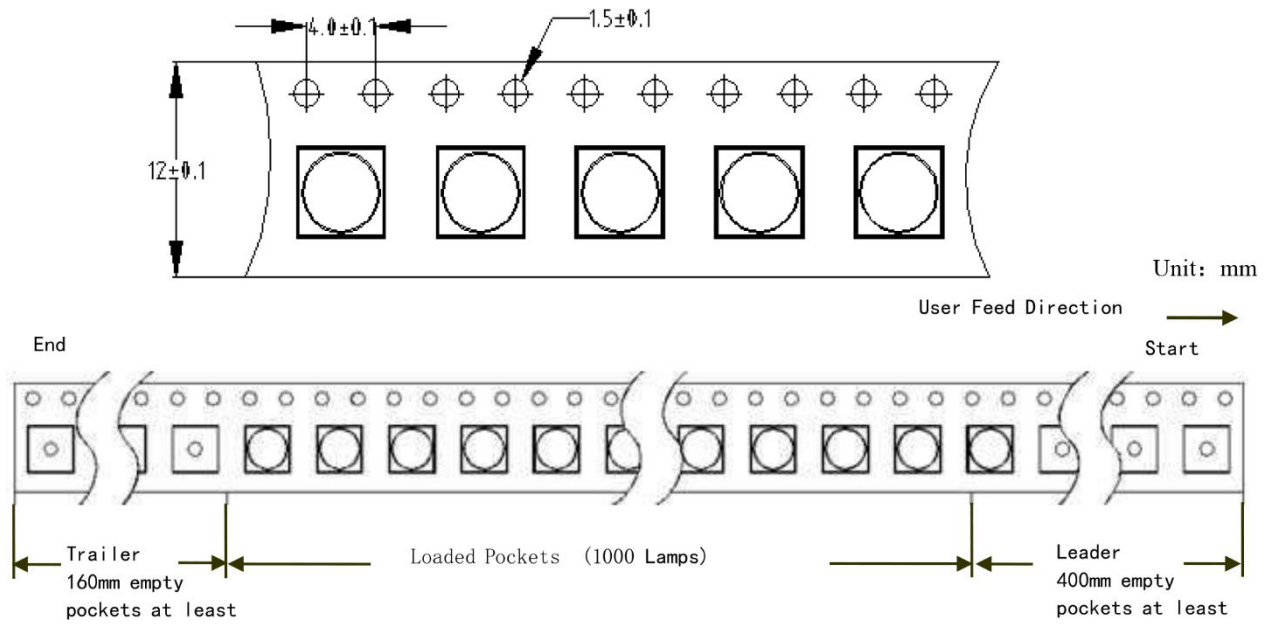


Dimension of Reel (Unit: mm)

➤ Package Type:

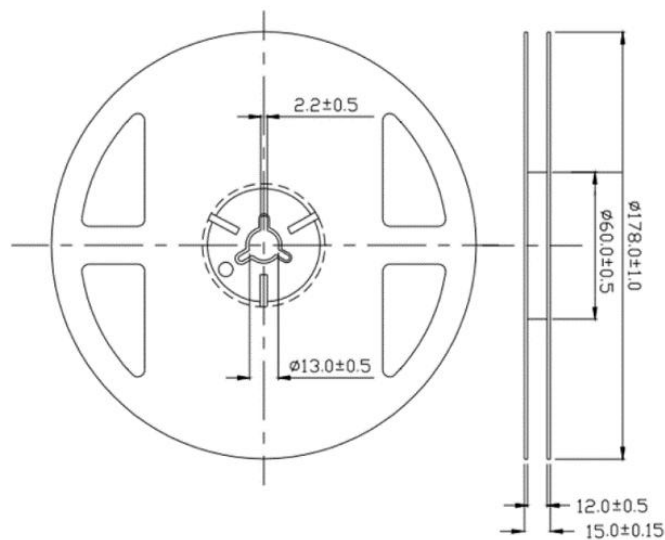
Packaging Methods: 7 "reel packaging (package quantity: 1000 pcs)

Carrier Tape
Dimension

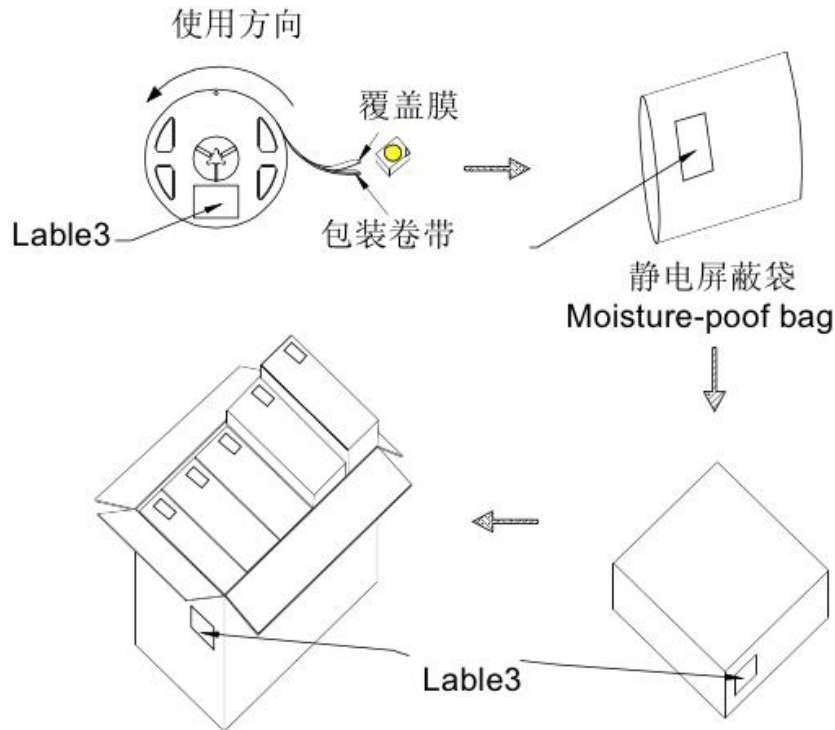


Reel Dimensions

Unit: mm.



3.Dimension of Package (Unit: mm)



每个外箱装5个内箱
外箱尺寸=425*245*273mm
Outside box
Maximums for inside
boxes

每盒5袋
内箱尺寸：247*230*75
Inside box Maximums seven

Thank You!

