



BRIGHTTEK
BRIGHTTEK (EUROPE) LIMITED

Brighten Up The World With LED!



ISO/TS 16949:2009



BS EN ISO 14001:2004



QC 080000 IECQ HSPM

PRODUCT DATASHEET



- ▶ Ceramic SMD
- ▶ 3639 1.21t Series
- ▶ Cool White (6500K)

NOW62S33



Release Date: 06 September 2022 Version: A1.0



3639 1.21t Series

RoHS
Compliant



FEATURES:

- **Package:** TOP View Ceramic Package with Glass Lens
- **Forward Current:** 1400~3000mA
- **Forward Voltage (typ.):** 3.1V
- **Luminous Flux (typ.):** 500lm@1400mA
- **Colour:** Cool White
- **Colour Temperature (CCT):** 6500K
- **Viewing angle:** 120°
- **Materials:**
 - Resin: Glass (Water Clear)
 - L/T Finish: Au plated
- **Operating Temperature:** -40~+85°C
- **Storage Temperature:** -40~+105°C
- **Grouping parameters:**
 - Forward Voltage
 - Luminous Flux
 - CIE Chromaticity
- **Soldering methods:** Reflow
- **Preconditioning:** MSL3 according to J-STD020
- **Packing:** 12mm tape with max.500pcs/reel, ø178mm (7")

APPLICATIONS:

- Decorative Lighting
- Portable Lighting
- Outdoor Lighting
- Commercial Lighting
- Architectural Lighting
- Pool and Fountain Light

CHARACTERISTICS:

Absolute Maximum Characteristics (Ta=25°C)

Parameter	Symbol	Ratings	Unit
DC Forward Current	I _F	3000	mA
Pulse Forward Current Width≤100μs, Duty cycle≤1/10	I _{FP}	4500	mA
Reverse Voltage	V _R	5	V
Junction Temperature	T _J	150	°C
Electrostatic Discharge (HBM: MIL-STD-883 C 2)	ESD	6000	V
Operating Temperature	T _{OPR}	-40~+85	°C
Storage Temperature	T _{STG}	-40~+105	°C
Soldering Temperature (10S)	T _{SOL}	230 or 260 for 10S	°C

Electrical & Optical Characteristics (Ta=25°C)

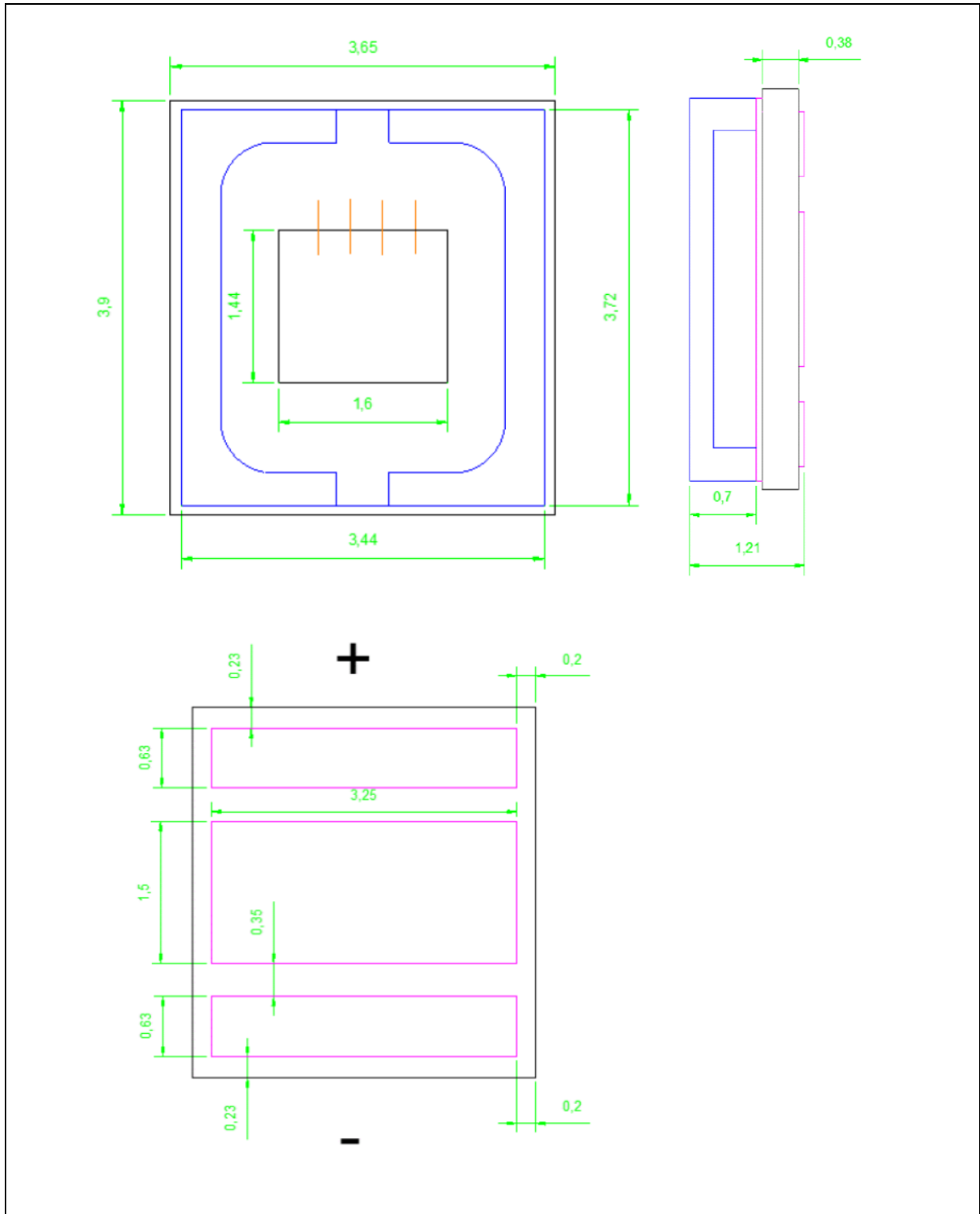
Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Forward Voltage	V _F	---	3.1	---	V	I _F =1400mA
Luminous Flux	Φ _V	---	500	---	lm	I _F =1400mA
Chromaticity Coordinates	X	---	0.3130	---	---	I _F =1400mA
	Y	---	0.3280	---		
Viewing Angle	2θ _{1/2}	---	120	---	deg	I _F =1400mA

- Luminous flux (Φ_V) ±7%, Forward Voltage (V_F) ±0.05V, Viewing angle(2θ_{1/2}) ±10°

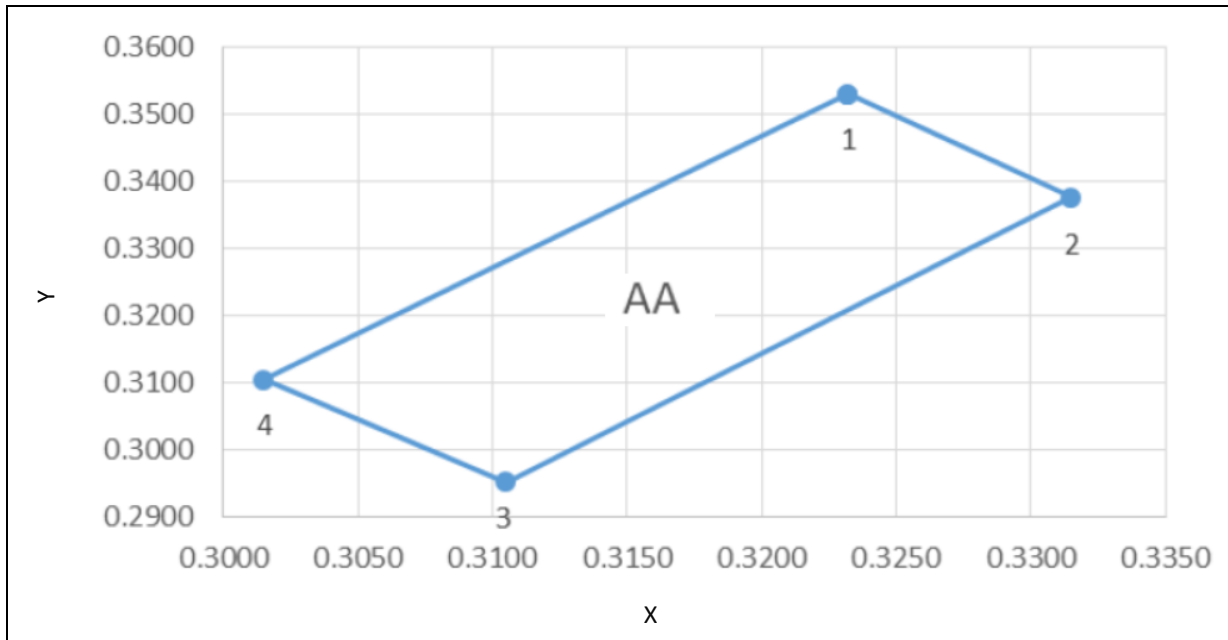


OUTLINE DIMENSION:

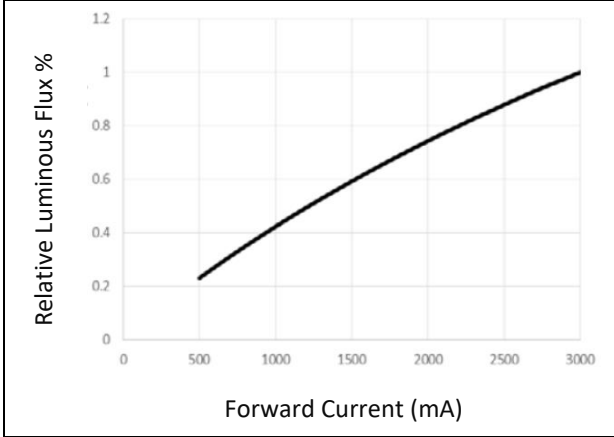
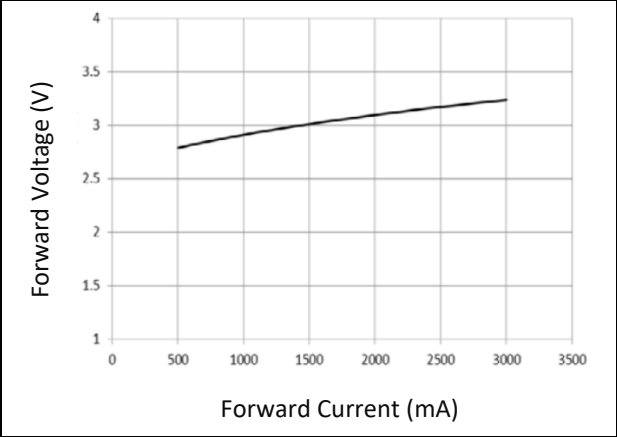
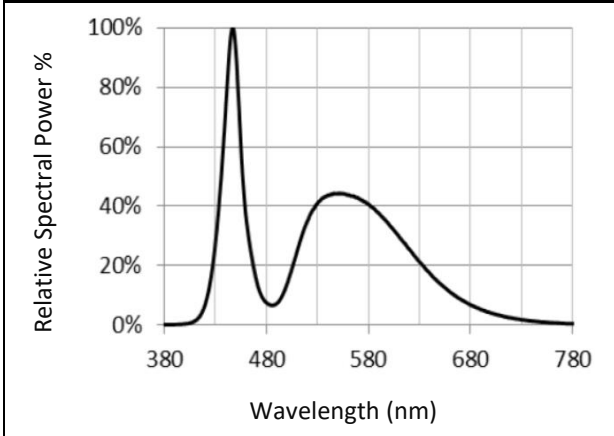
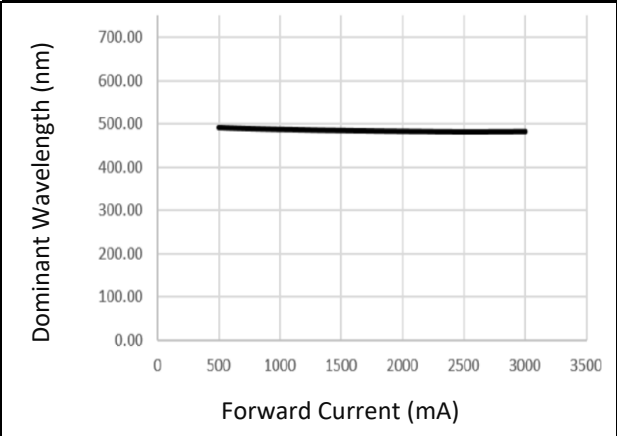
Package Dimension:



1. All dimensions are in millimetre (mm).
2. Tolerance ± 0.13 mm, unless otherwise noted.

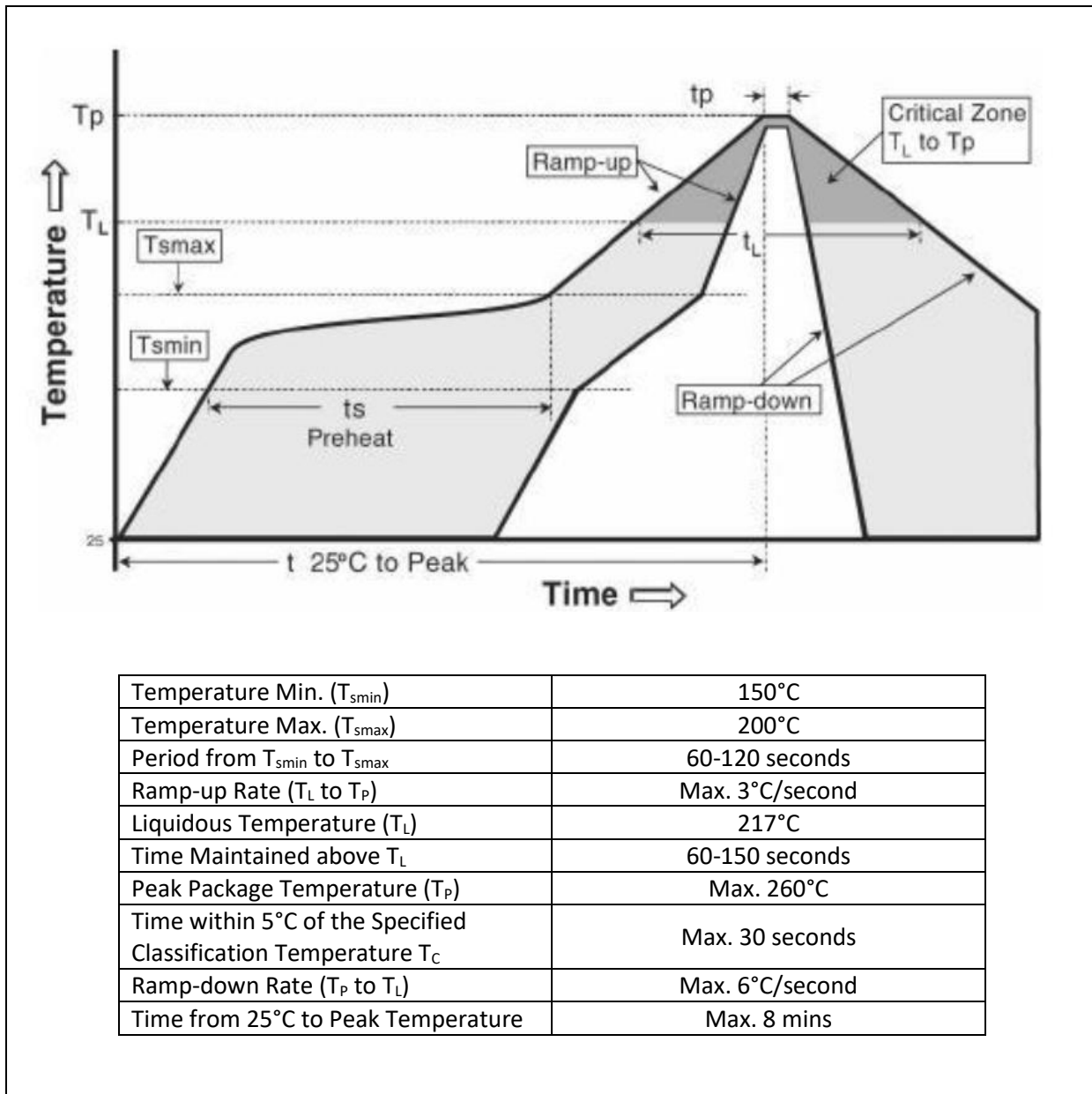
CIE CHROMATICITY DIAGRAM:

 Chromaticity Coordinates Classifications ($I_F = 1400\text{mA}$):

	1		2		3		4	
	X	Y	X	Y	X	Y	X	Y
AA	0.3232	0.3531	0.3315	0.3376	0.3105	0.2951	0.3015	0.3104

ELECTRO-OPTICAL CHARACTERISTICS:
Relative Luminous Flux v.s. Forward Current

Forward Current v.s. Forward Voltage

Relative Spectral Power v.s. Wavelength

Forward Current v.s. Wavelength


RECOMMENDED SOLDERING PROFILE:

Reflow Lead-free Solder:

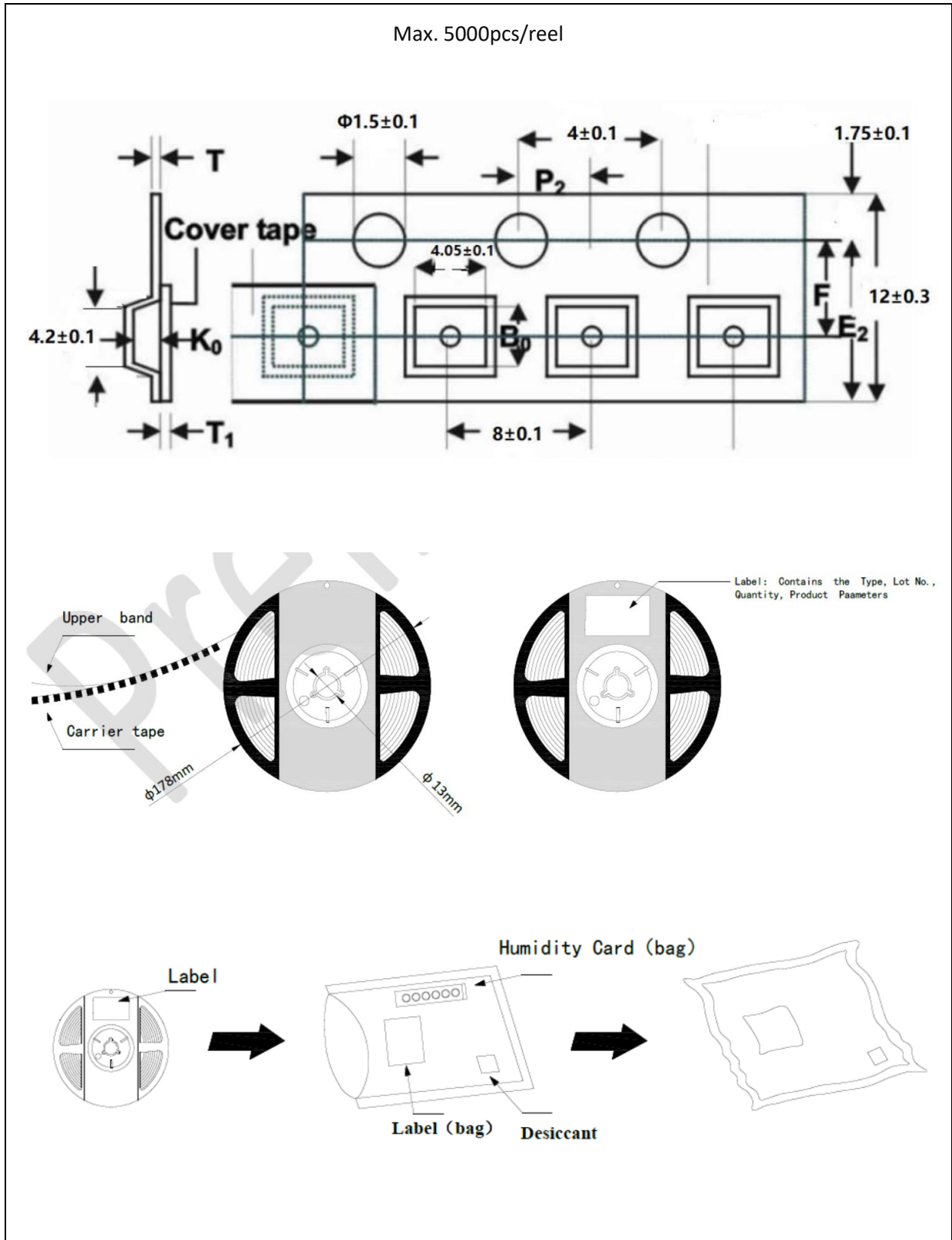


Note:

1. Maximum reflow soldering: 2 times.
2. Before, during, and after soldering, should not apply stress on the components and PCB board.
3. Recommended soldering temperature: 230°C. The maximum soldering temperature should be limited to 260°C for max. 10seconds.

PACKING SPECIFICATION:

Reel Dimension:



PRECAUTIONS OF USE:

Storage:

It is recommended to store the products in the following conditions:

- Humidity: 60% R.H. Max.
- Temperature: 5°C~30°C (41°F ~86°F).

Shelf life in sealed bag: 12 months at 5°C~30°C and <60% R.H.

Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp-proof box with desiccating agent <10% R.H. and apply baking before use.

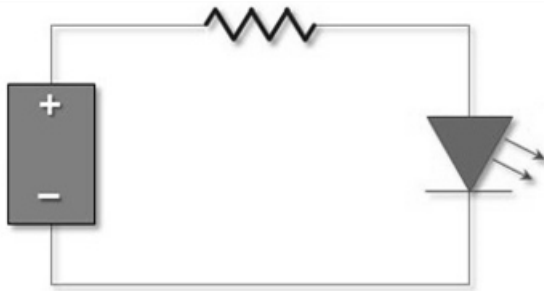
Baking:

It is recommended to bake the LED before soldering if the pack has been unsealed for longer than 24hrs. The suggested baking conditions are as followings:

- 60±3°C x 24hrs and <5%RH, taped / reel package.

It's normal to see slight color fading of carrier (light yellow) after baking in process.

Testing Circuit:



Must apply resistor(s) for protection (over current proof).

Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED carrier / package. Avoid putting any stress force directly on to the LED lens.

ESD (Electrostatic Discharge):

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrostatic glove is recommended when handling the LED all time. All devices, equipment, machinery, work tables, and storage racks must be properly grounded.

In the events of manual working in process, make sure the devices are well protected from ESD at any time.

REVISION RECORD:

Version	Date	Summary of Revision
A1.0	06/09/2022	Datasheet set-up.