



# YETDA INDUSTRY LTD.

## Technical Data Sheet

MODEL NO : S150ANB4-H

1206Package 3.2\*1.6mm Chip LEDs

### Features :

- Package in 8mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Compatible with reflow solder process

### Applications :

- Indicators
- Automotive : backlighting in dashboard and switch
- Backlight for LCD

Die material	Emitted color	Lens Color
Clear InGaN ue Water	Bl	

### Electrical / Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Luminous Intensity	Iv	IF=20mA		250		mAcd
Dominant Wavelength	$\lambda_D$	IF=20mA		470		nm
Peak Emission Wavelength	$\lambda_p$	IF=20mA		472		nm
Viewing Angle	2 $\theta$ 1/2	IF=20mA		130		Deg
Forward Voltage	Vf	IF=20mA		3.2	3.8	V
Reverse Current	IR	VR=5V			10	$\mu$ A

### Absolute Maximum Ratings (Ta=25°C)

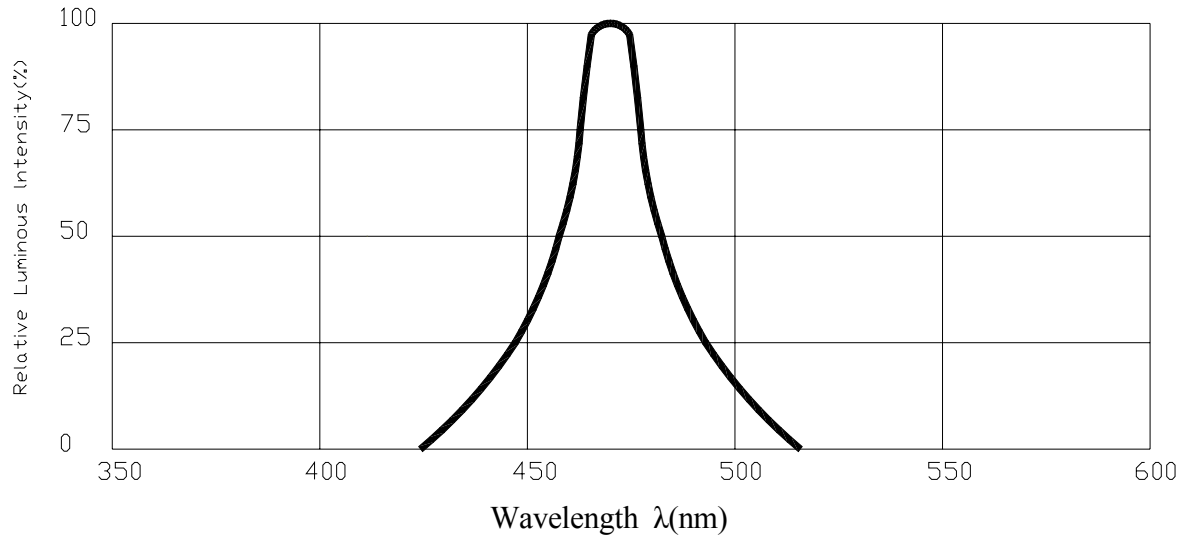
Parameter	Symbol	Maximum	Unit
Power Dissipation	Pd	78	mW
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	IF (Peak)	100	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Derating Linear From 25°C		0.3	mW/°C
Operating Temperature Range	Topr	-30 to +80	°C
Storage Temperature Range	Tstg	-40 to +90	°C

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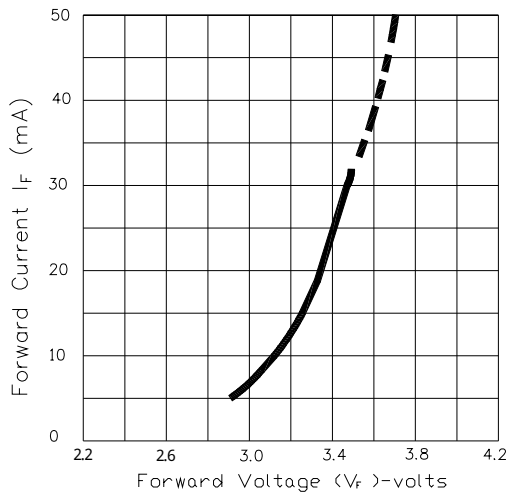


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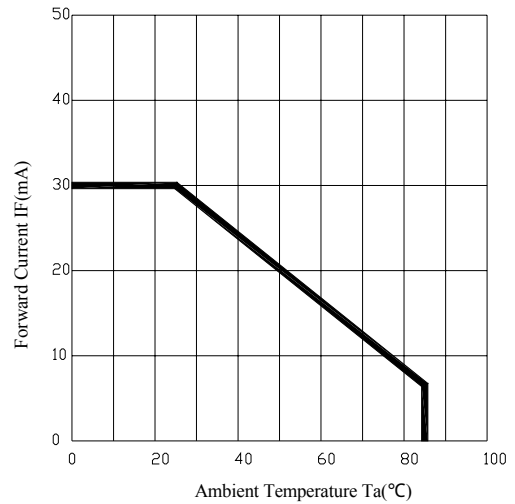
### Spectrum Distribution



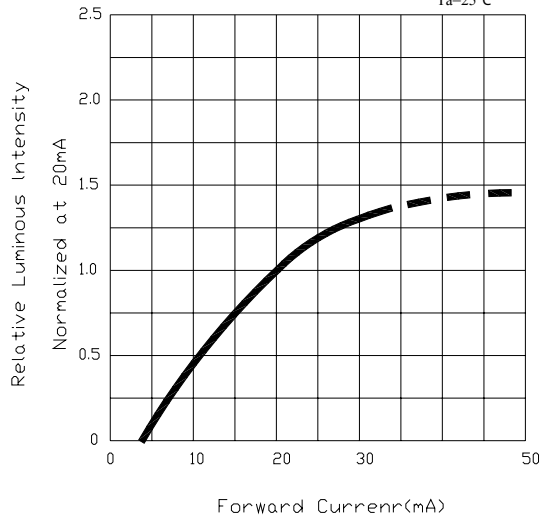
### Forward Current Vs. Forward Voltage $T_a=25^\circ\text{C}$



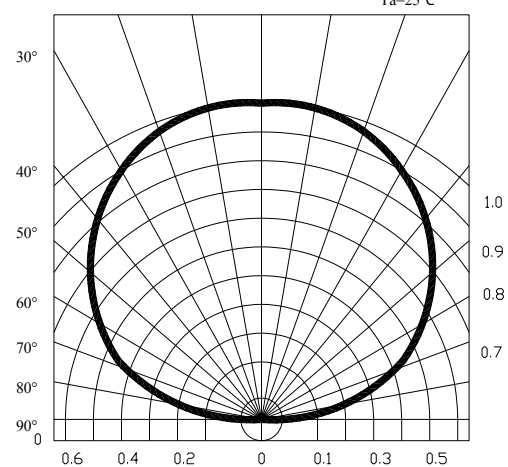
### Forward Current Derating Curve



### Luminous Intensity Vs. Forward Current $T_a=25^\circ\text{C}$

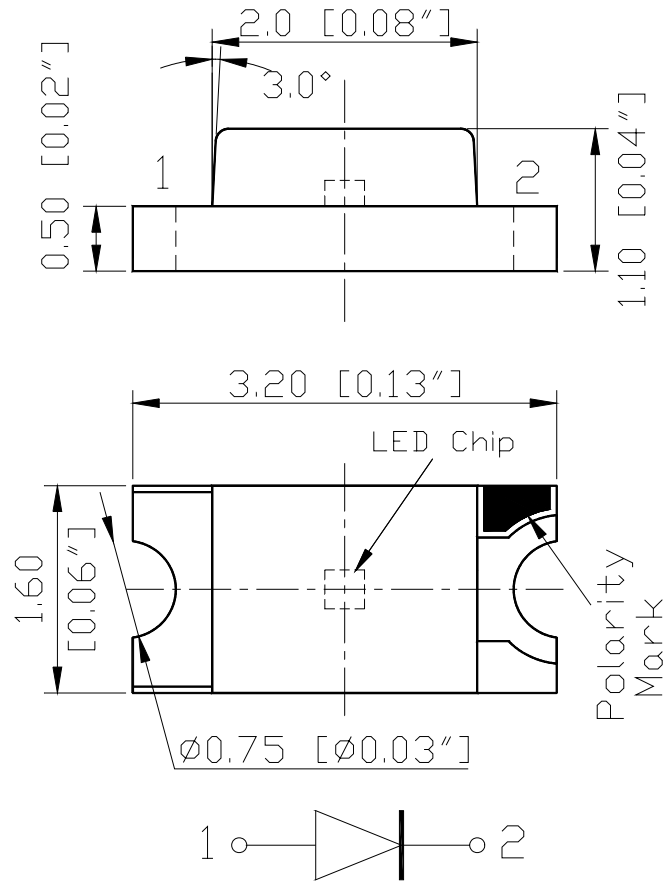


### Radiation Diagram $T_a=25^\circ\text{C}$

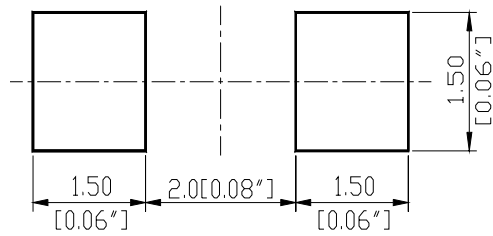




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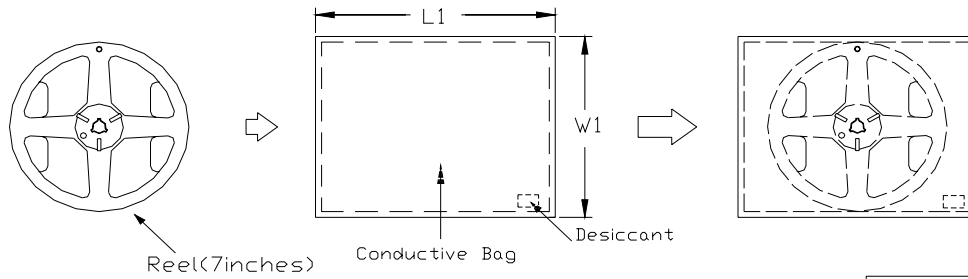


## RECOMMEND PAD LAYOUT



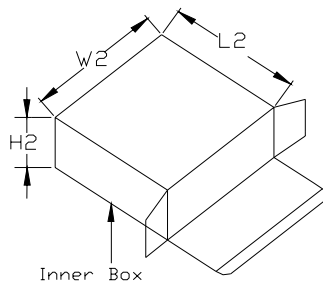


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Dimension	L1	W1
Spec.	253	224

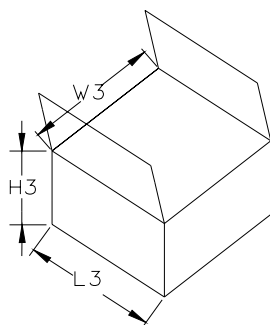
Unit : mm



5 Reel per Box

Dimension	L2	W2	H2
Outside	220	190	60
Inside	219.5	189.5	59.5

Unit : mm



Dimension	L3	W3	H3
Outside	395	320	240
Inside	382	307	227

Unit : mm



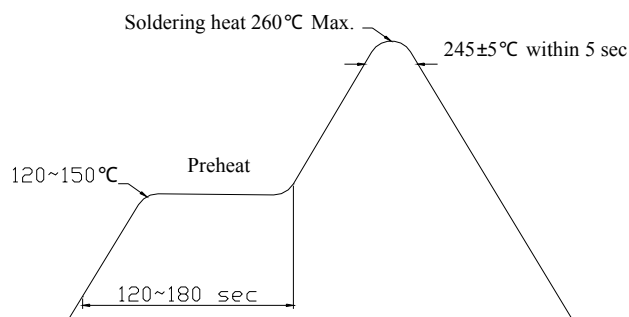
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## • Descriptions :

- The Chip-LED Taping is much smaller than lead frame type components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Besides, lightweight makes them ideal for miniature application, etc.

## • Soldering heat reliability ( DIP ):

Please refer to the following figure :

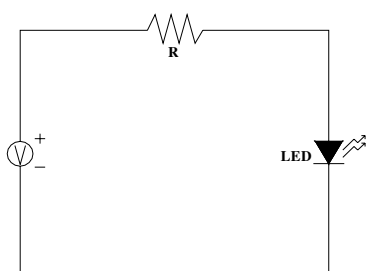


## • Precautions For Use :

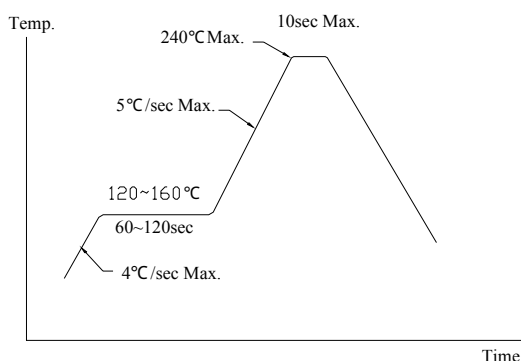
- Over- current- proof  
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen )
- Storage
  1. The operation of temperature and R.H. are : 5°C ~ 30°C, 60%R.H. Max..
  2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a dampproof box with desiccating regent. Considering the tape life, we suggest our customers to use our products within 1.5 year ( from production date ) .
  3. It's recommended to bake before soldering when the package is unsealed after 72 hrs. The condition is : 60°C±5°C for 15hrs.



● **Test Circuit**



● **Reflow Temp. / Time :**



● **Reliability Test Items And Conditions**

The reliability of products shall be satisfied with items listed below.

No.	Items	Test Condition	Test Hours/Cycles	Sample Size
1	Solder Heat	TEMP : 260°C±5°C	5 sec	48 pcs
2	Temperature Cycle	90°C ~ 25°C ~ -30°C ~ 25°C 30m 5m 30m 5m	300Cycles	48 Pcs
3	Thermal Shick	100°C ~ -55°C 10m 10m	100Cycles	48 Pcs
4	Operation Life	If=20mA	1000 Hrs	48 Pcs
5	High Temperature Storage	Temp:90°C	1000Hrs	48 Pcs
6	Low Temperature Storage	Temp:-30°C	1000Hrs	48 Pcs
7	High Temperature/High Humidity	80°C / R.H80%	1000Hrs	48 Pcs