

YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : S0402ANW4-BH

0402Package 1.0*0.5mm Chip LEDs

Features :

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

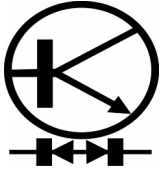
Applications :

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

Dice material	Emitted color	Lens Color
InGaN	Blue	Yellow

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Spectral half bandwidth	I _F =5mA	$\Delta \lambda$		22		nm
CIE Wavelength	I _F =5mA	Δd		6500		K
Forward voltage	I _F =5mA	V _F	2.6		3.0	V
Luminous intensity	I _F =5mA	I _v	200		300	mcd
Viewing angle at 50% I _v	I _F =5mA	2 θ 1/2		120		Deg
Reverse current	V _R =5V	I _R			10	μ A



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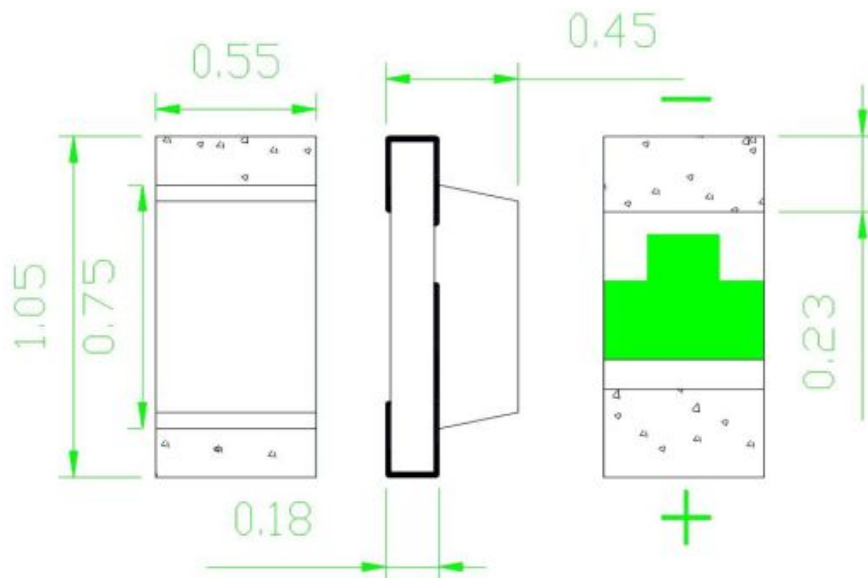
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Value	Unit
Power dissipation	Pd	92	mW
Forward current	I _F	20	mA
Reverse voltage	V _R	5	V
Operating temperature range	T _{op}	-40 ~+80	°C
Storage temperature range	T _{stg}	-40 ~+85	°C
Peak pulsing current (1/8 duty f=1kHz)	I _{FP}	100	mA

Note:

1. 1/10 Duty cycle, 0.1ms pulse width.
2. The above forward voltage measurement allowance tolerance is ±0.1V.
3. The above dominant wavelength measurement allowance tolerance is ±1nm.

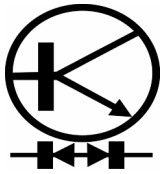
PACKAGING DIMENSIONS (mm):



Notes:

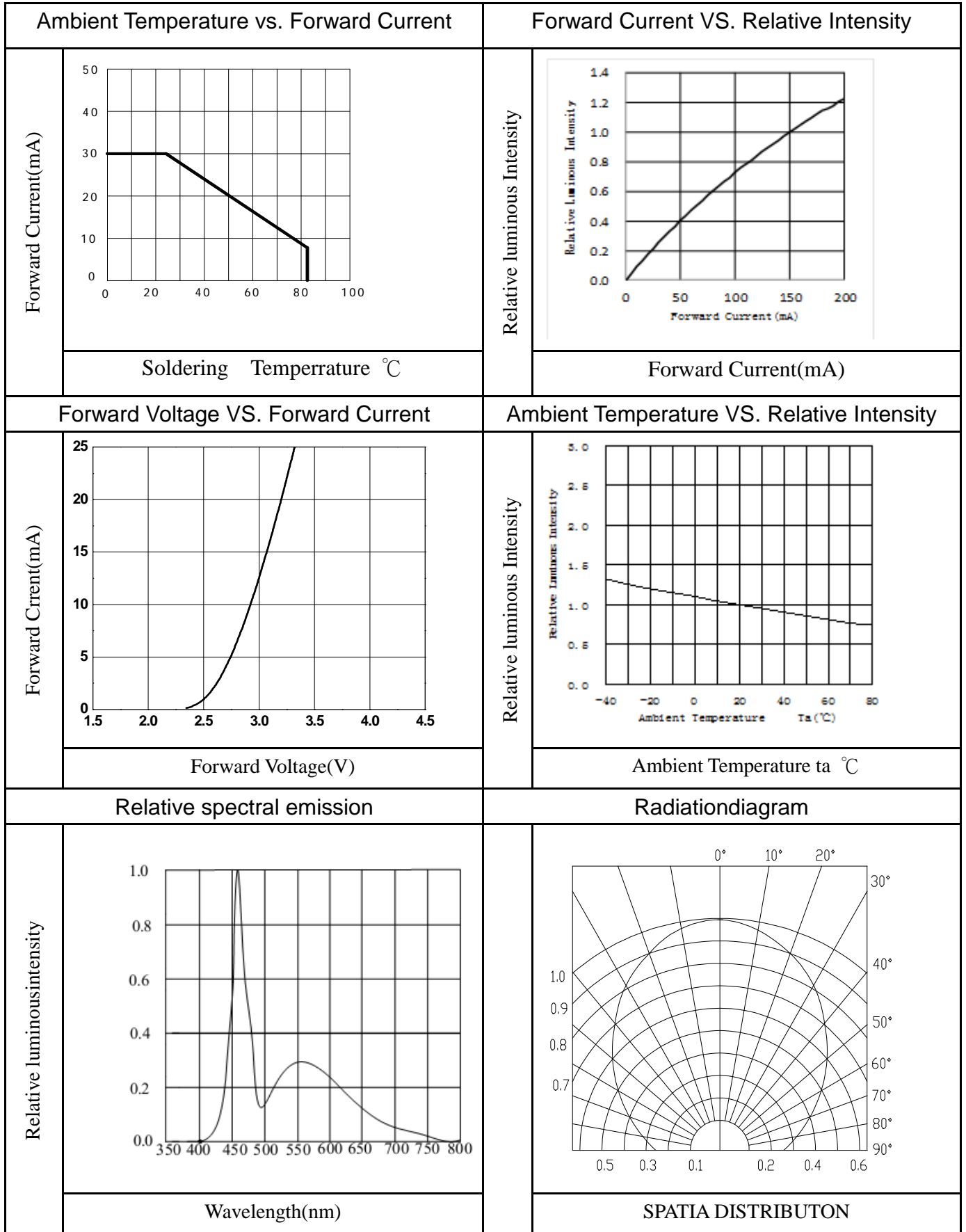
1. All dimension units are millimeters.
2. All dimension tolerance is ±0.15mm unless otherwise noted.

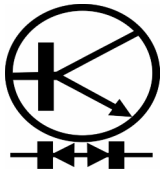




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Typical Electro-Optical Characteristics Curve:

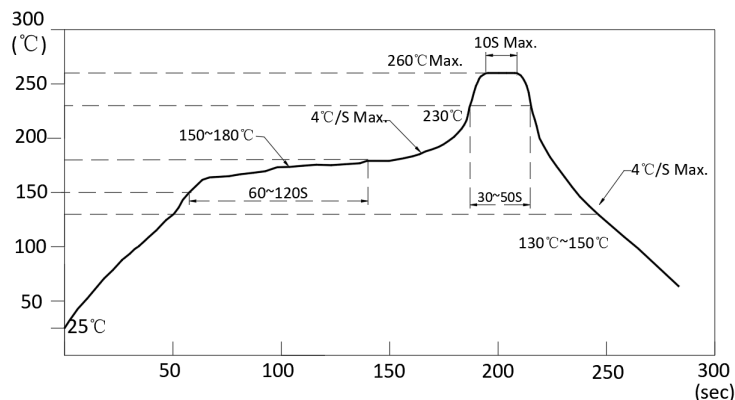




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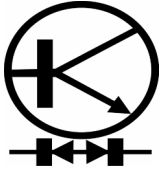
Precautions For Use :
Over - current - proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen)
Storage
1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$, 60%R.H. Max.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a dampproof box with desiccating reagent. 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 : $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 15hrs.

■ Reflow Temp/Time



Notes:

1. We recommend the reflow temperature $245^{\circ}\text{C}(\pm 5^{\circ}\text{C})$. The maximum soldering temperature should be limited to 260°C .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.



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■Soldering iron

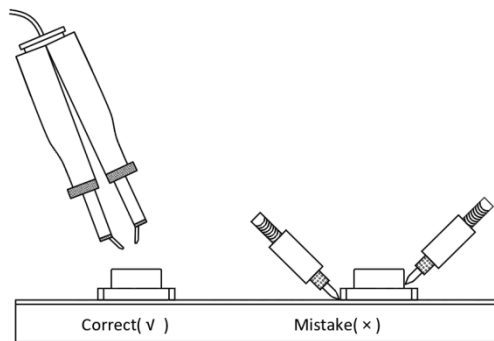
Basic spec is $\leq 5\text{sec}$ when $320^{\circ}\text{C} (\pm 20^{\circ}\text{C})$. If temperature is higher, time should be shorter(+10 $^{\circ}\text{C} \rightarrow -1\text{sec}$).

Powerdissipation of iron should be smaller than 20W, and temperatures should be controllable .Surface

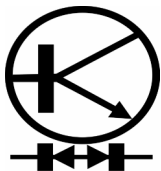
temperature of the device should be under 350°C .

Rework

- 1.Customer must finish rework within 5 sec under 340°C .
2. The head of iron cannot touch copper foil
3. Twin-head type is preferred.

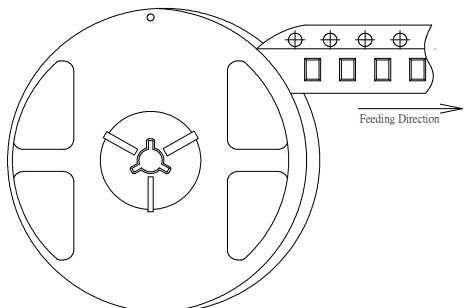


■Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow solder etc.

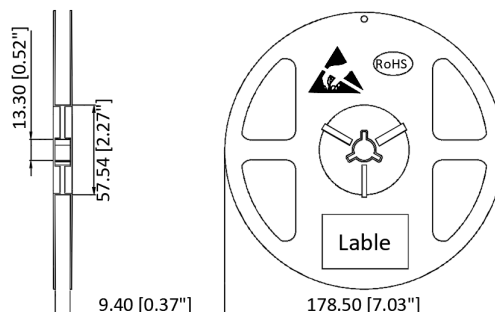


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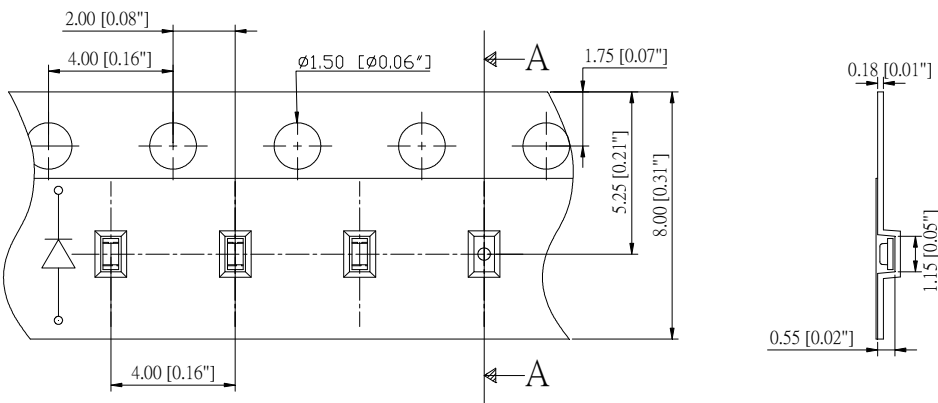
■ Feeding Direction



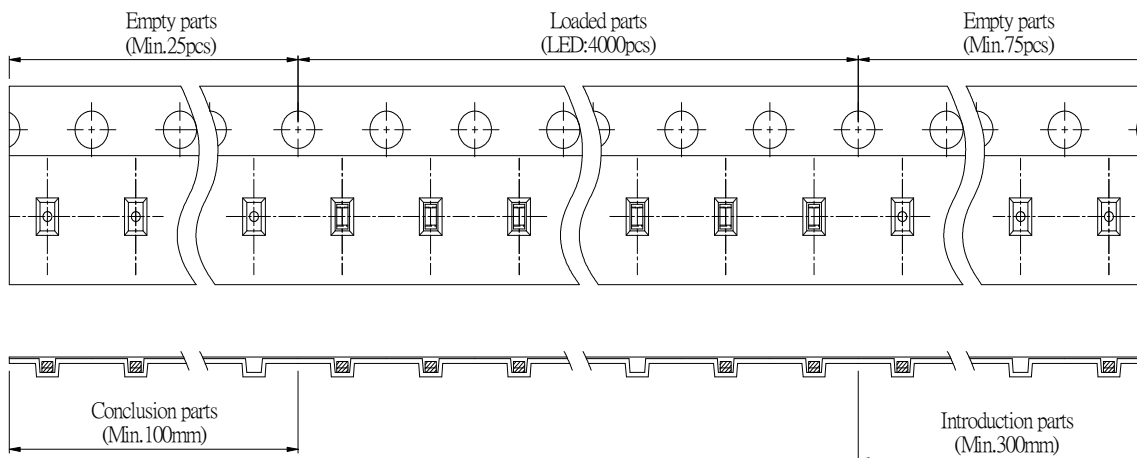
● Dimensions of Reel (Unit: mm)



■ Dimensions of Tape (Unit: mm)



■ Arrangement of Tape



■ Note

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two.
3. 4,000 pcs/Reel.