



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : S194ANW4

1.6 x 0.8 x 0.4mm White SMD

Features

- Package: 5000pcs per 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	White	Yellow

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Luminous intensity	I _F =5mA	I _v	80		225	mcd
Chromaticity Coordinates	I _F =5mA	X		0.26		-
		Y		0.26		-
Forward voltage	I _F =5mA	V _F	2.8		3.4	V
Viewing angle	I _F =5mA	2θ 1/2		120		Deg
Reverse current	V _R =5V	I _R			10	μA

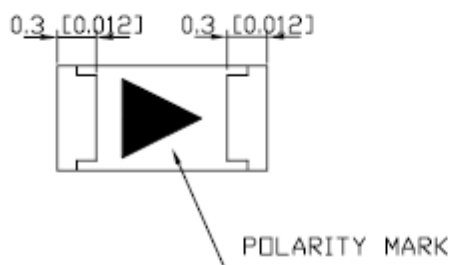
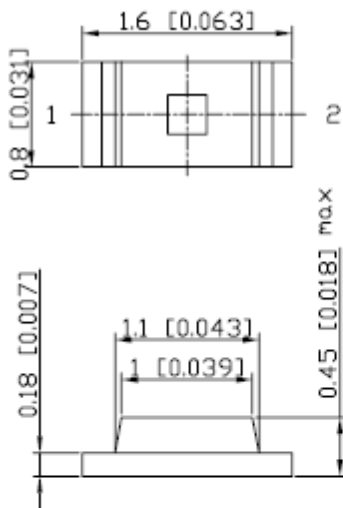
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Value	Unit
Power dissipation	P _d	30	mW
Forward current	I _F	10	mA
Reverse voltage	V _R	5	V
Operating temperature range	Top	-20 ~+80	°C
Storage temperature range	T _{stg}	-40 ~+80	°C
Peak pulsing current (1/10 duty f=1kHz)	I _{FP}	20	mA



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PACKAGING DIMENSIONS (mm):



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VF Rank

Rank	VF(V)		Condition
	Min	Max	
F1	2.6	2.7	IF=5mA
F2	2.7	2.8	
G1	2.8	2.9	
G2	2.9	3.0	
H1	3.0	3.1	
H2	3.1	3.2	
J1	3.2	3.3	
J2	3.3	3.4	

Tolerance:±0.05V

IV Rank

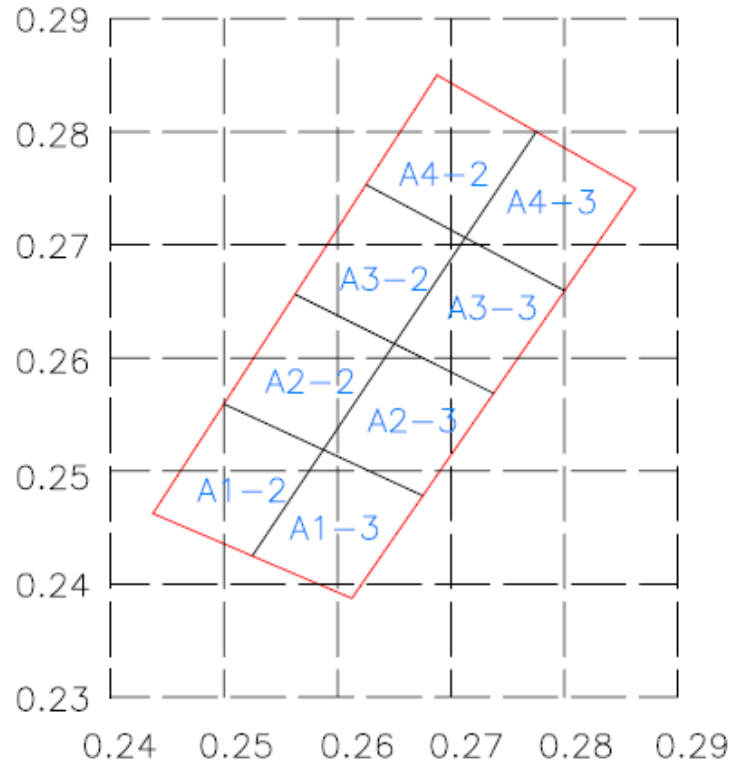
Rank	IV(mcd)		Condition
	Min	Max	
M	80	100	IF=5mA
N	100	130	
P	130	170	
Q	170	225	

Tolerance:±15%



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X/Y Rank



A1-2	X	0.250	0.259	0.253	0.244	A1-3	X	0.259	0.268	0.261	0.253
	Y	0.256	0.252	0.242	0.246		Y	0.252	0.248	0.239	0.242
A2-2	X	0.256	0.265	0.259	0.250	A2-3	X	0.265	0.274	0.268	0.259
	Y	0.266	0.261	0.252	0.256		Y	0.261	0.257	0.248	0.252
A3-2	X	0.262	0.271	0.265	0.256	A3-3	X	0.271	0.280	0.274	0.265
	Y	0.275	0.271	0.261	0.266		Y	0.271	0.266	0.257	0.261
A4-2	X	0.269	0.277	0.271	0.262	A4-3	X	0.277	0.286	0.280	0.271
	Y	0.285	0.280	0.271	0.275		Y	0.280	0.275	0.266	0.271

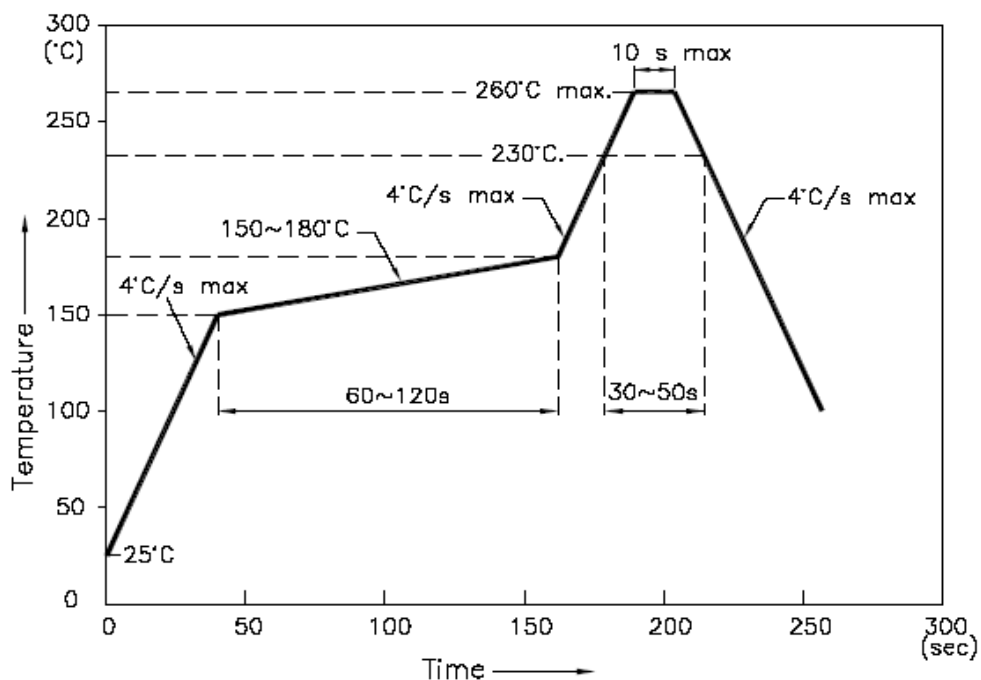
Tolerance: ±0.005



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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 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 : $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 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. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.



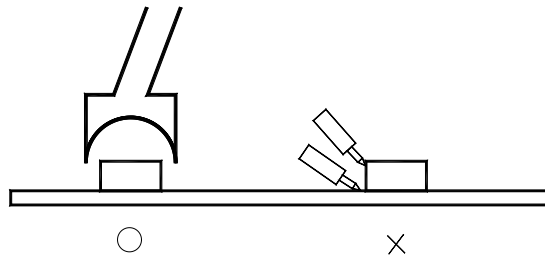
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■Soldering iron

Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should be shorter ($+10^{\circ}\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230°C .

■Rework

1. Customer must finish rework within 5 sec under 260°C .
2. The head of iron can not 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.**