



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : 117UR/ANG/ANB2

1204 Package 3.2*1.0*1.3mm 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
AlGaInP/GaAs	Red	White diffused lens
InGaN	Green	
InGaN	Blue	

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit	
			Min	Typ	Max		
Spectral half bandwidth	Red Green Blue	If=20mA	$\Delta \lambda$		21		nm
					34		
					27		
Dominant wavelength	Red Green Blue	If=20mA	λ_D	615	620	630	nm
				550	525	535	
				465	470	475	
Forward voltage	Red Green Blue	If=20mA	VF	1.7	2.0	2.5	V
				2.8	3.2	3.7	
				2.8	3.1	3.7	
Luminous intensity	Red Green Blue	If=20mA	Iv	100	190	320	mcd
				320	530	1000	
				63	110	200	
Viewing angle at 50% Iv		If=10mA	2θ 1/2		150		Deg
Reverse current		VR=5V	IR			10	μA



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Typical Electro-Optical Characteristics Curve:Red

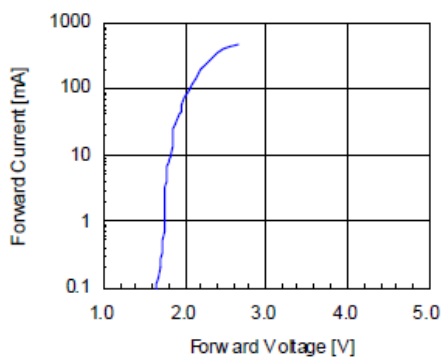


Fig 3. Forward Voltage vs. Temperature

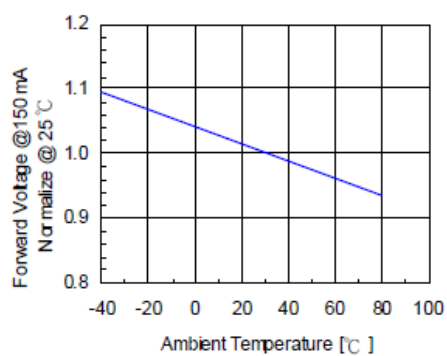


Fig 5. Relative Intensity vs. Wavelength

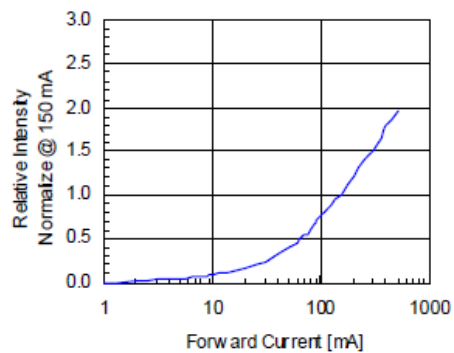
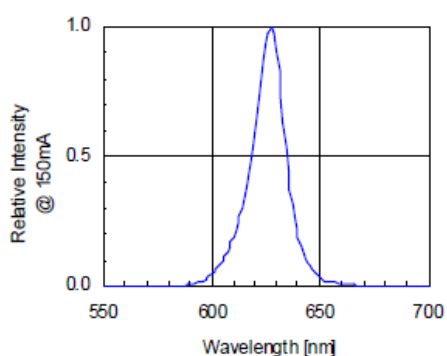
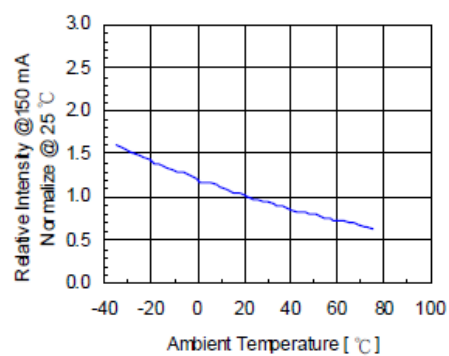


Fig 4. Relative Intensity vs. Temperature





Typical Electro-Optical Characteristics Curve: Green

Fig 1. Forward Current vs. Forward Voltage

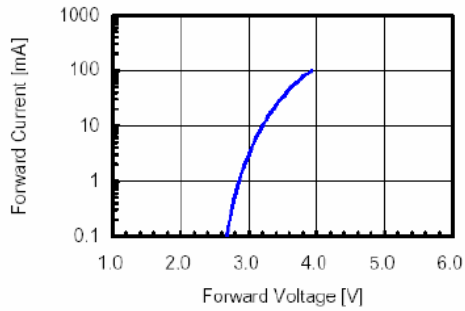


Fig 2. Relative Intensity vs. Forward Current

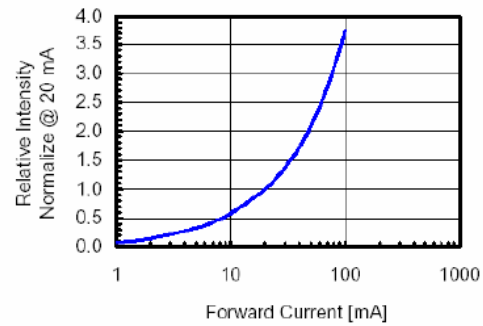


Fig 3. Forward Voltage vs. Temperature

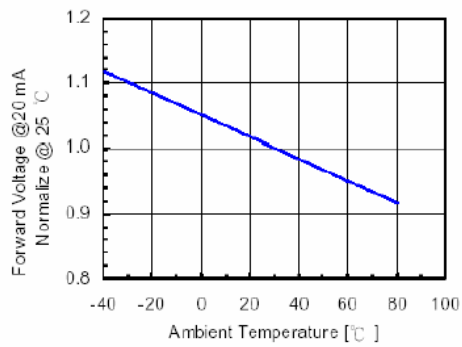


Fig 4. Relative Intensity vs. Temperature

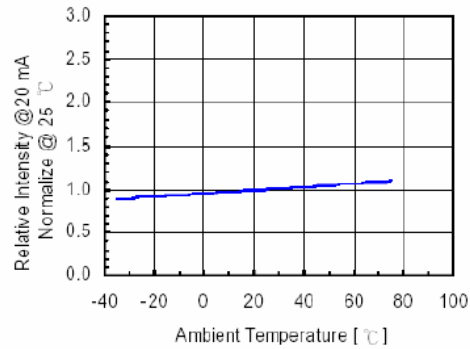
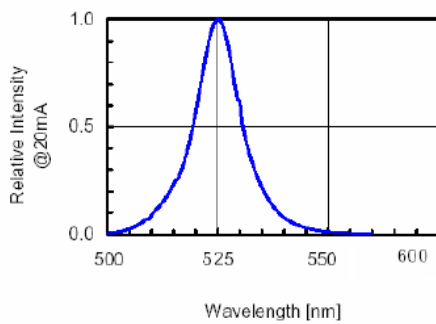


Fig 5. Relative Intensity vs. Wavelength





Typical Electro-Optical Characteristics Curve: Blue

Fig 1. Forward Current vs. Forward Voltage

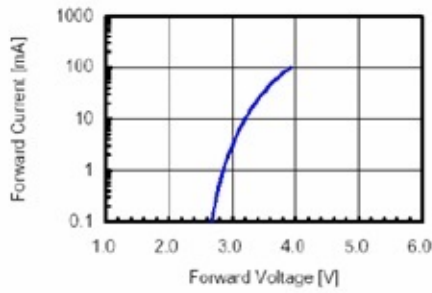


Fig 2. Relative Intensity vs. Forward Current

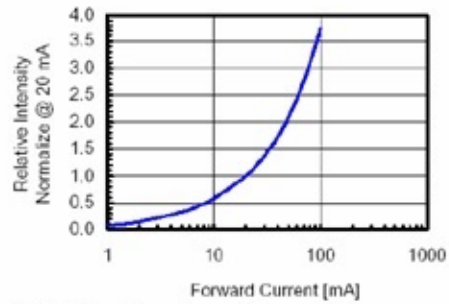


Fig 3. Forward Voltage vs. Temperature

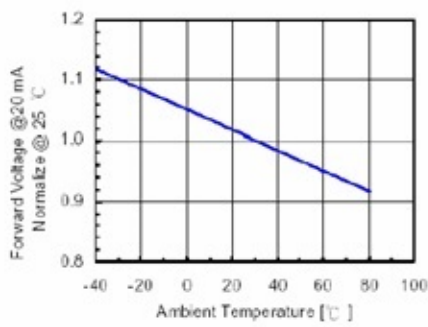


Fig 4. Relative Intensity vs. Temperature

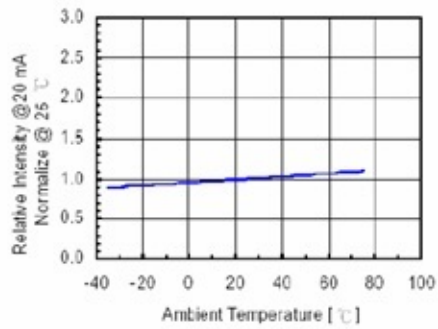
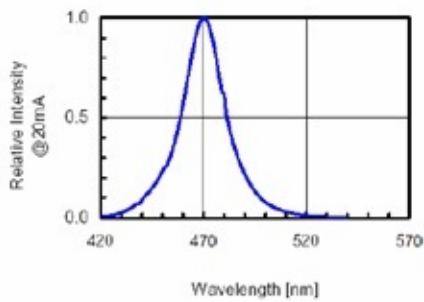


Fig 5. Relative Intensity vs. Wavelength

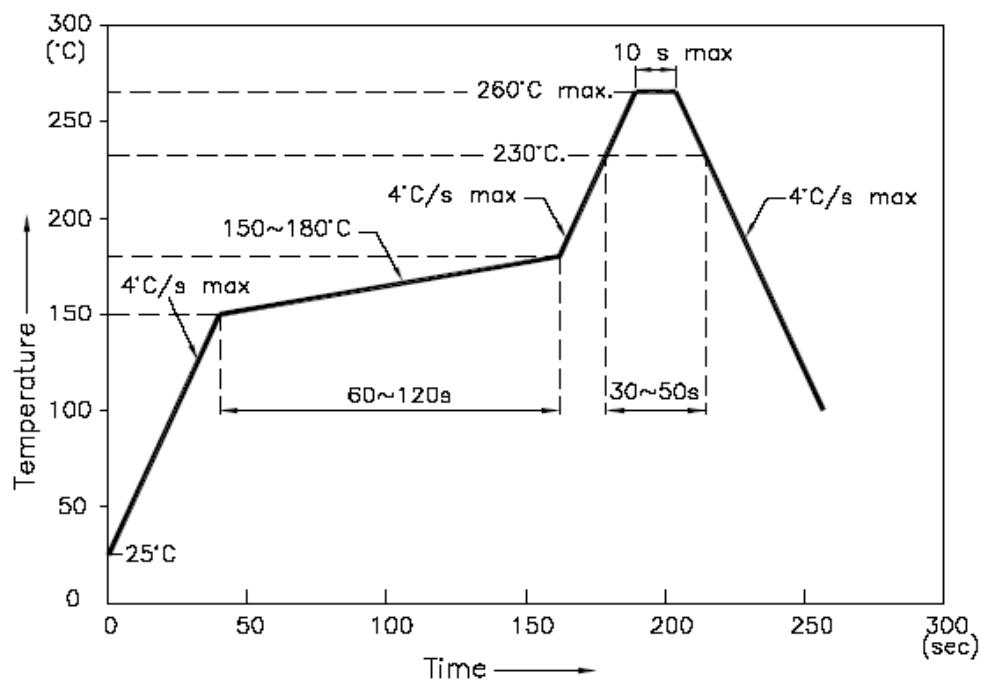




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Precautions For Use :
Over - current - proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen)
Storage
1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$, 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. 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.



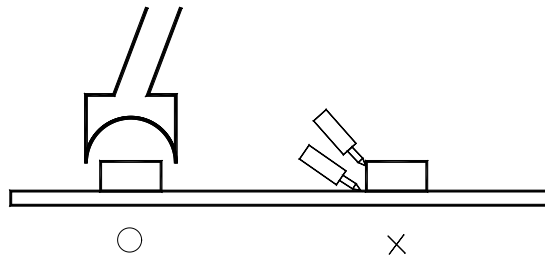
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■Soldering iron

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.

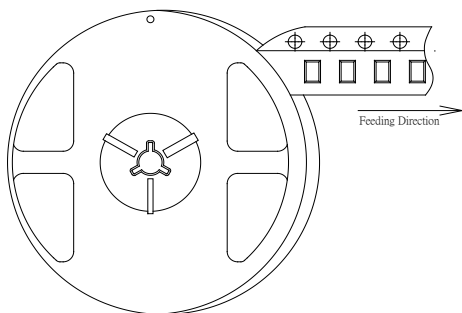


- Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow 、 solder etc.

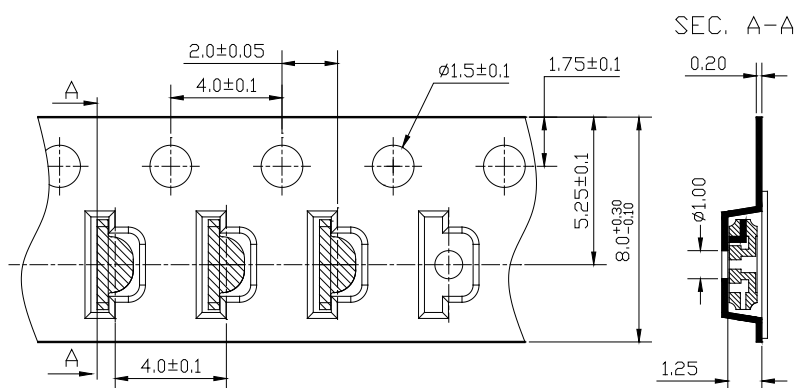


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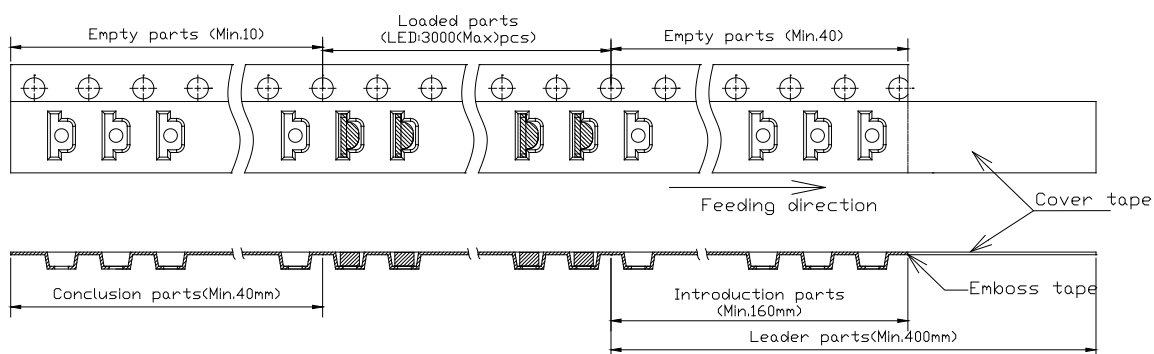
■Feeding Direction



■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. 3,000 pcs/Reel
4. Packing will be multiple of 500, e.g 500pcs/R, 1000pcs/R, 1500pcs/R..etc , MAX 3000pcs/R