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Technical Data Sheet

MODEL NO： 197UR/ANG/ANB4-CC 1.6*1.5*0.8mm Chip LED SMD

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	Red	Water transparent
InGaN	Green	
InGaN	Blue	

Electrical/Optical Characteristics(Ta=25℃)

Parameter	Test Condition	Symbol		Value			Unit
				Min	Typ	Max	
Spectral half bandwidth	I_F=20mA	△λ	R		19		nm
			G		32		
			B		27		
Dominant wavelength	I_F=20mA	λ_D	R	615	620	630	nm
			G	520	525	530	
			B	460	465	470	
Forward voltage	I_F=20mA	V_F	R	1.7	2.0	2.5	V
			G	2.8	3.2	3.7	
			B	2.8	3.2	3.7	
Luminous intensity	I_F=20mA	Iv	R	200	380	630	mcd
			G	400	690	1250	
			B	63	100	200	
Viewing angle at 50% Iv	I_F=10mA	2θ 1/2			140		Deg
Reverse current	V_R=5V	I_R			10		μA

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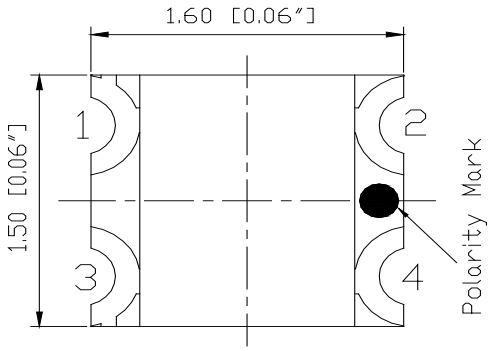
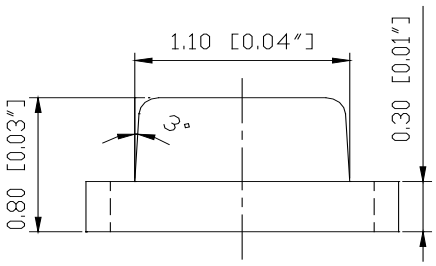
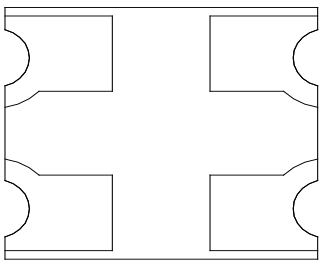
Absolute Maximum Ratings(Ta=25℃)

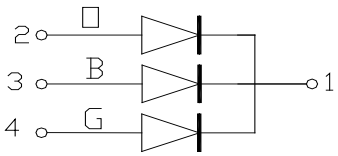
Parameter	Symbol	Value			Unit
		R	G	B	
Power dissipation	Pd	75	111	111	mW
Forward current	I_F	30			mA
Reverse voltage	V_R	5			V
Operating temperature range	Top	-40 ~+80			℃
Storage temperature range	Tstg	-40 ~+85			℃
Peak pulsing current (1/8 duty f=1kHz)	I_{FP}	125			mA

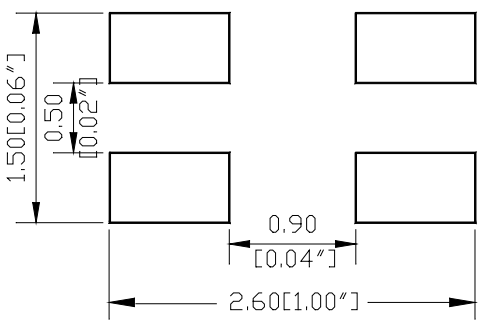
PACKAGING DIMENSIONS (mm):











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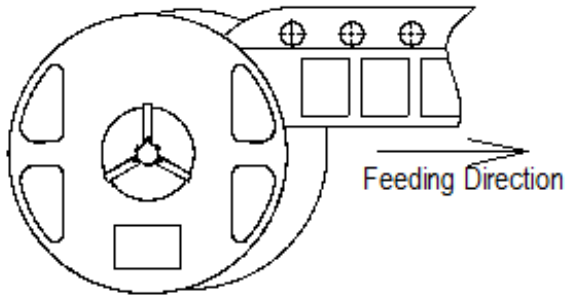
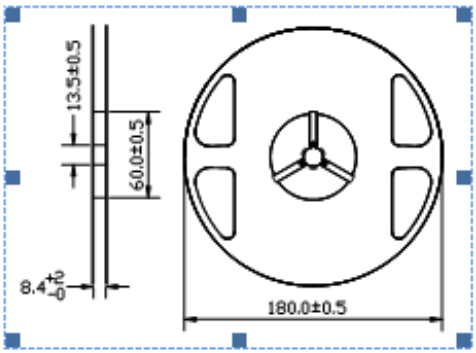
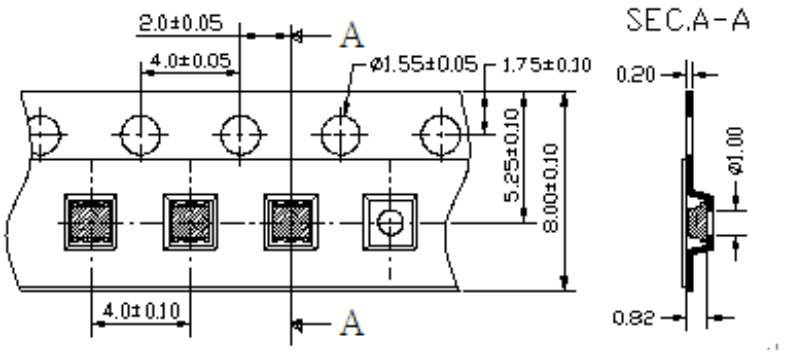
- **Feeding Direction**



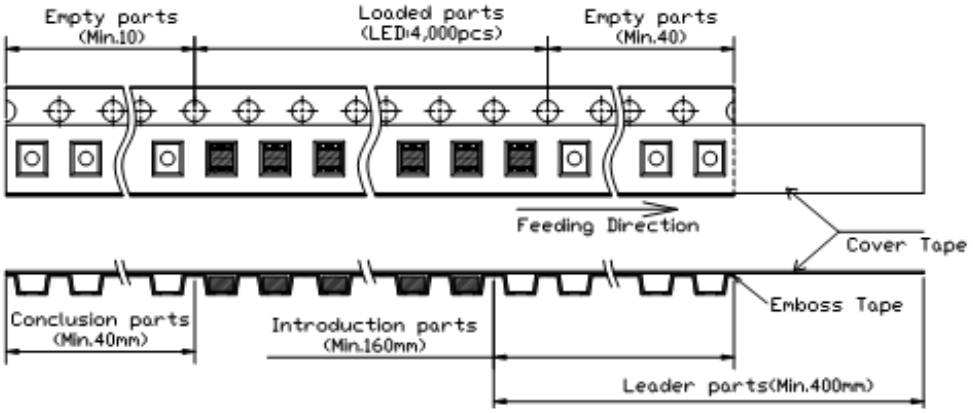
- **Dimensions of Reel (Unit: mm)**



- **Dimensions of Tape (Unit: mm)**



- **Arrangement of Tape**



- **NOTES**

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

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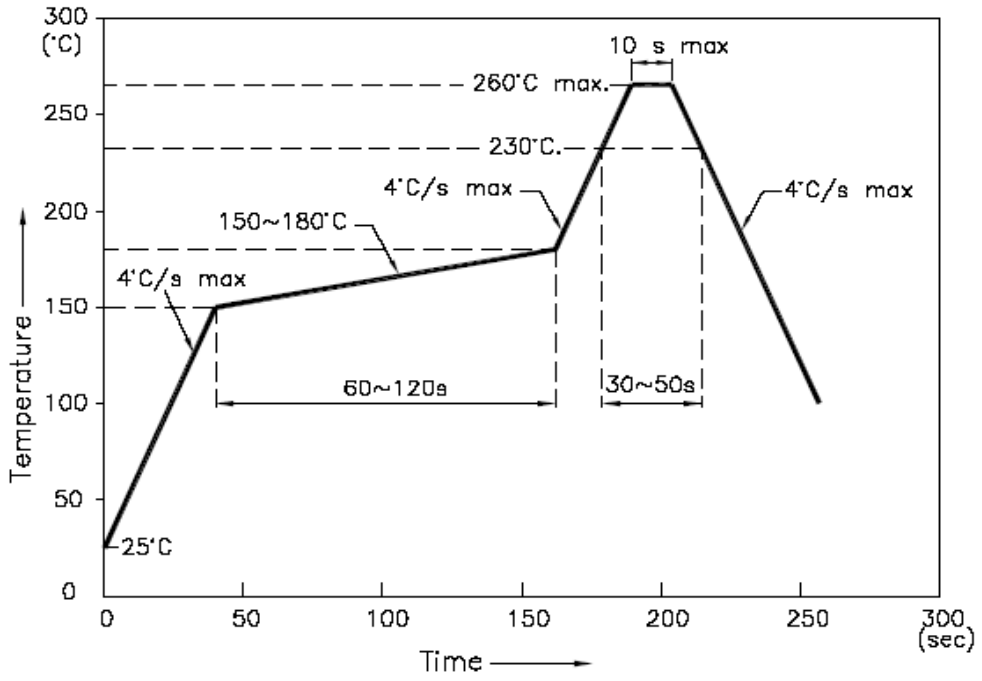
Precautions For Use：
Over－current－proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change （Burn out will happen）
Storage
1. The operation of temperature and R.H. are：5℃～30℃, 60％R.H. Max.
2. Once the package is opened, the products should be used 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℃±5℃ for 15hrs.

■ Reflow Temp/Time



NOTES:

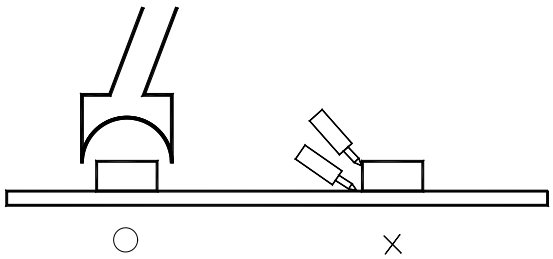
1. We recommend the reflow temperature 245℃(±5℃).the maximum soldering temperature should be limited to 260℃.
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■Soldering iron

Basic spec is ≤ 5sec when 260℃. If temperature is higher, time should be shorter (+10℃→ -1sec).Power dissipation of iron should be smaller than 20W, and temperatures should be controllable .Surface temperature of the device should be under 230℃ .

■Rework

1. Customer must finish rework within 5 sec under 260℃.
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.**