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Technical Data Sheet

MODEL NO： S282ANG4-JH **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	Pure-green	Water Clear

Electrical/Optical Characteristics(Ta=25℃)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Spectral half bandwidth	I_F=2mA	△λ		35		nm
Dominant wavelength	I_F=20mA	λ_D	520		530	nm
Forward voltage	I_F=20mA	V_F	2.8		3.6	V
Luminous intensity	I_F=20mA	Iv	320	500	800	mcd
Viewing angle at 50% Iv	I_F=20mA	2θ 1/2		120		Deg
Reverse current	V_R=5V	I_R			10	μA

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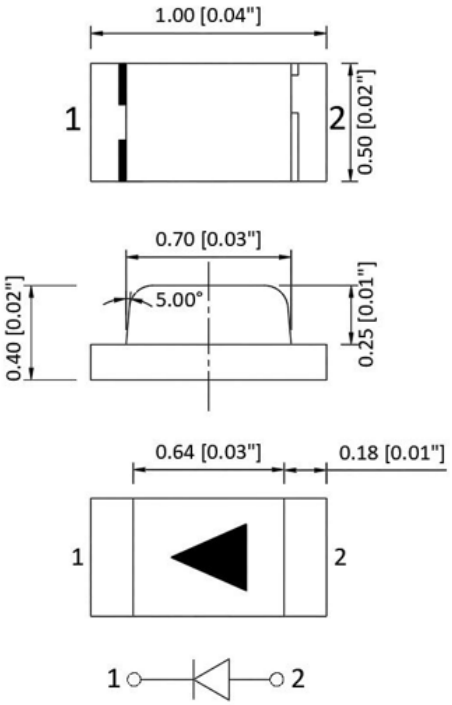
Absolute Maximum Ratings(Ta=25℃)

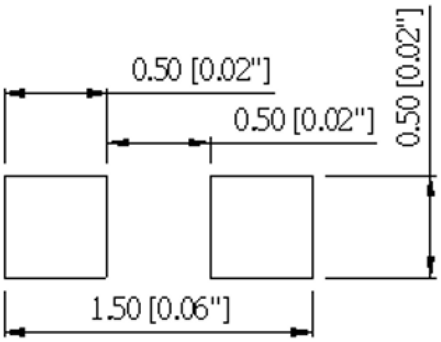
Parameter	Symbol	Value	Unit
Power dissipation	Pd	60	mW
Forward current	I_F	25	mA
Reverse voltage	V_R	5	V
Operating temperature range	Top	-40 ~+80	℃
Storage temperature range	Tstg	-40 ~+85	℃
Peak pulsing current (1/8 duty f=1kHz)	I_{FP}	125	mA

PACKAGING DIMENSIONS (mm):

Package outlines



Recommend Pad Layout



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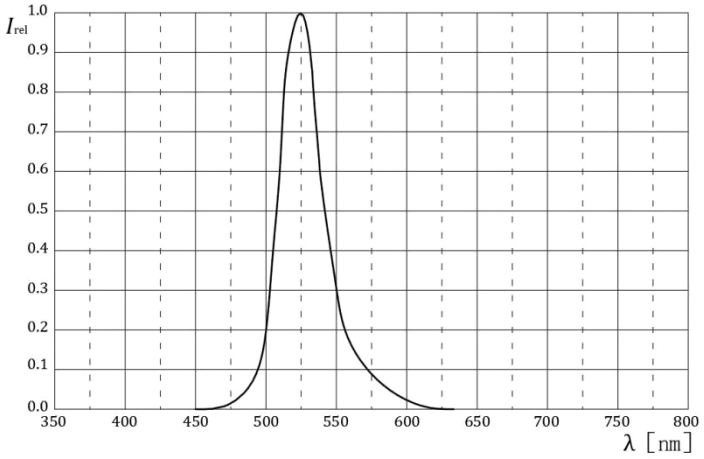
Typical Electro-Optical Characteristics Curve:

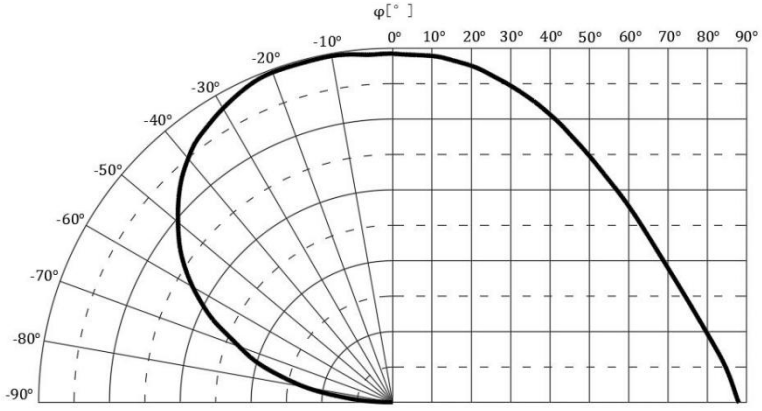
Relative Spectral Emission

IF=5mA,Ta=25℃



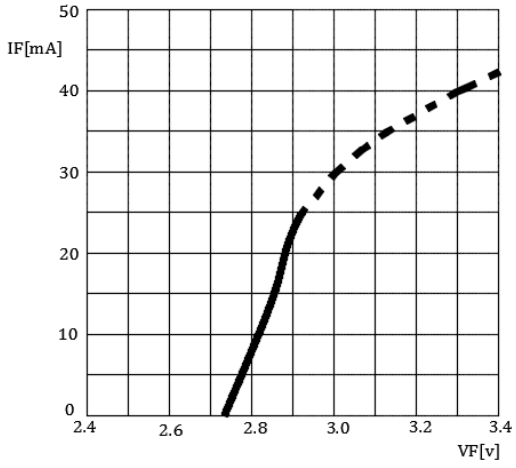
Radiation Characteristics

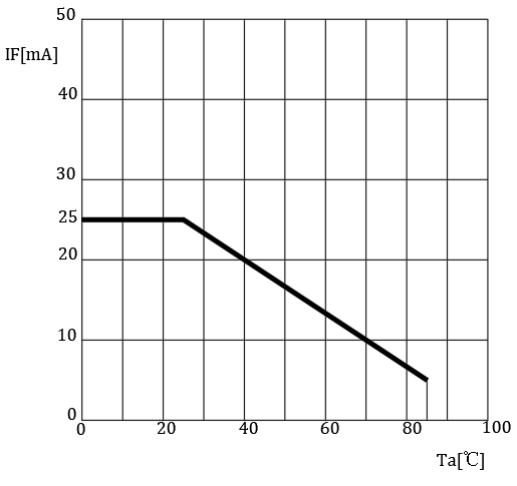
IF=10mA,Ta=25℃



Forward Current vsForward Voltage Forward Current Derating Curve

Ta=25℃





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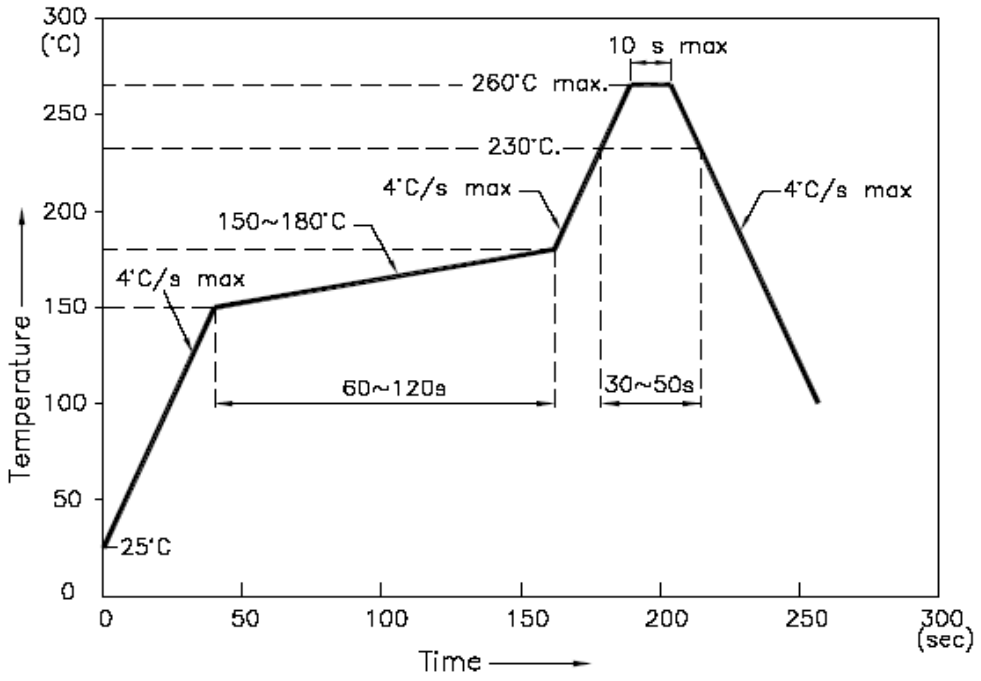
Precautions For Use：
Over－current－proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change （Burn out will happen）
Storage
1. The operation of temperature and R.H. are：5℃～30℃, 60％R.H. Max.
2. Once the package is opened, the products should be used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

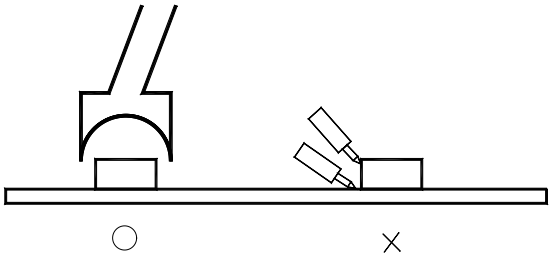
1. We recommend the reflow temperature 245℃(±5℃).the maximum soldering temperature should be limited to 260℃.
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■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.**

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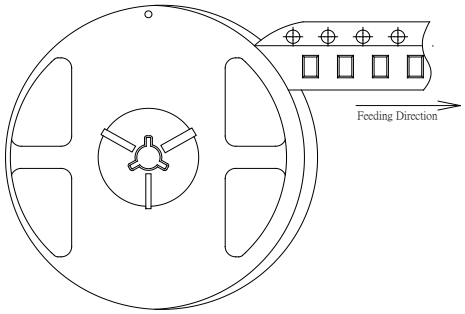
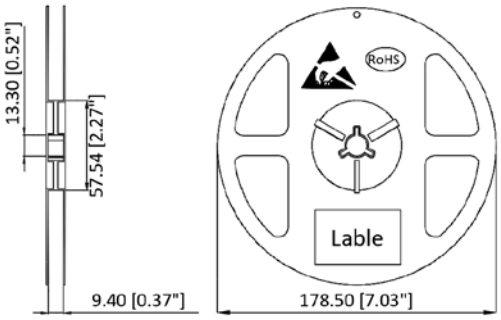
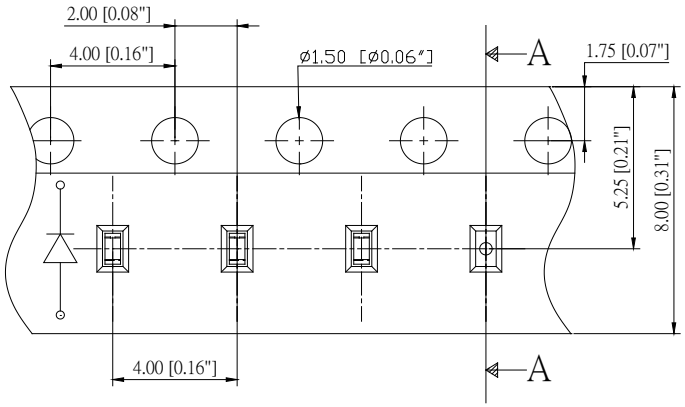
■Feeding Direction

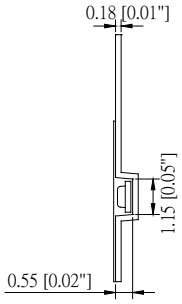


● **Dimensions of Reel (Unit: mm)**

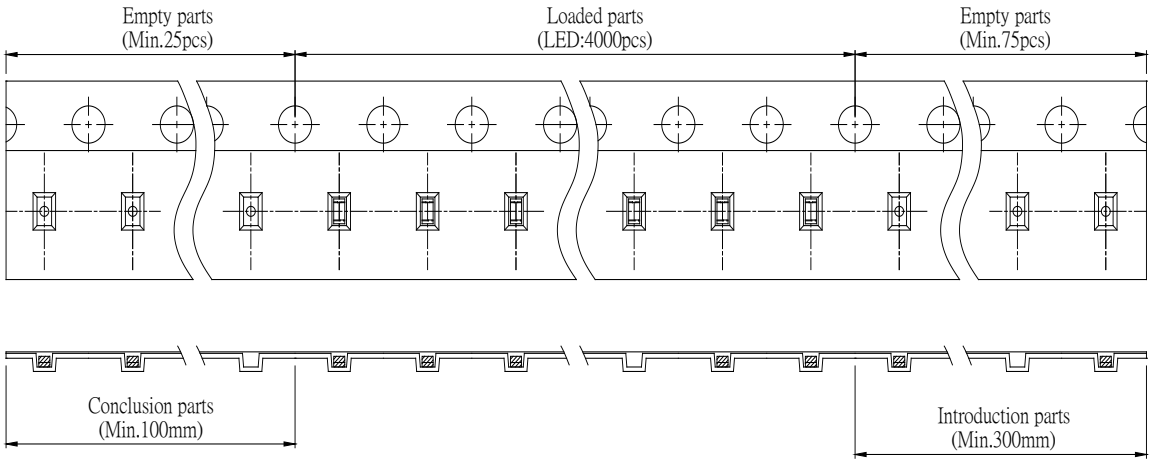


■Dimensions of Tape (Unit: mm)





■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.