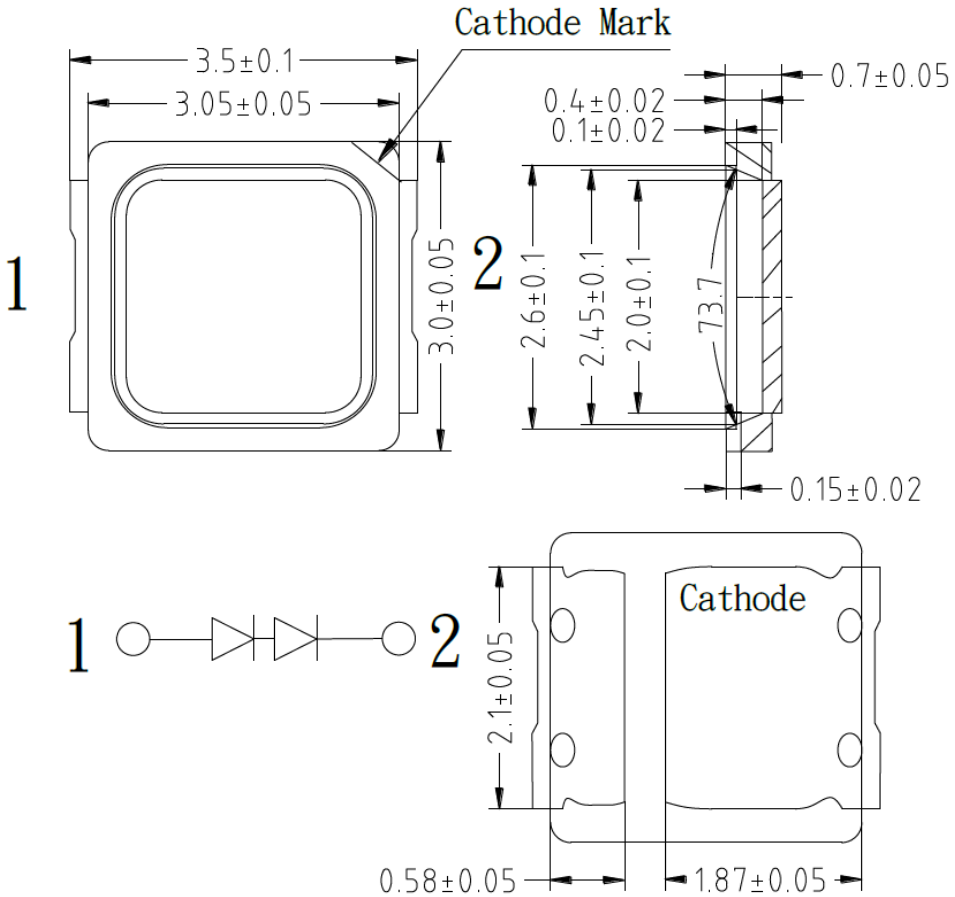
SHARLIGHT ELECTRONICS CO., LTD.

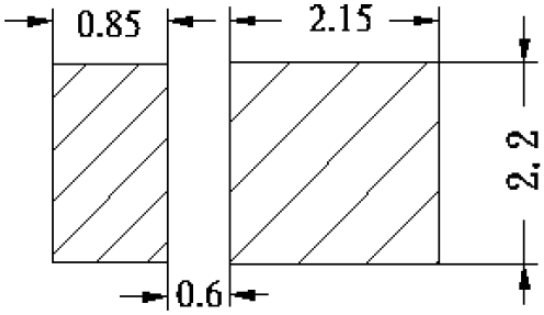
SPECIFICATION FOR APPROVAL

Part No.：SLE-3030NY40-B1W-EC (WARM WHITE)

Package Dimensions



Recommend Pad layout



Part NO.	Chip Material	Lens Color	Emission Color
SLE-3030NY40-B1W-EC	InGaN	-	Warm White

Notes:

1. All dimensions are in millimeters.

2. Tolerance is ±0.25mm unless otherwise noted.

3. Specifications are subject to change without notice.

LISTER: 周素華 12-17-14	EDITOR： 12-17-14	DATE：12-17-14	REV：A

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Absolute Maximum Ratings at TA=25℃

Parameter	Maximum Rating	Unit
Forward Current	150	mA
Pulse Forward Current(Duty 1/10,pulse width 0.1ms)	240	mW
Reverse Voltage	10	V
Junction Temperature	110	℃
Electrostatic Discharge ESD(HBM)	1000	V
Operating Temperature Range	-40℃ to + 80℃	
Storage Temperature Range	-40℃ to + 100℃	
Soldering Temperature	260℃ for 5 Seconds	

Electrical / Optical Characteristics at TA=25℃

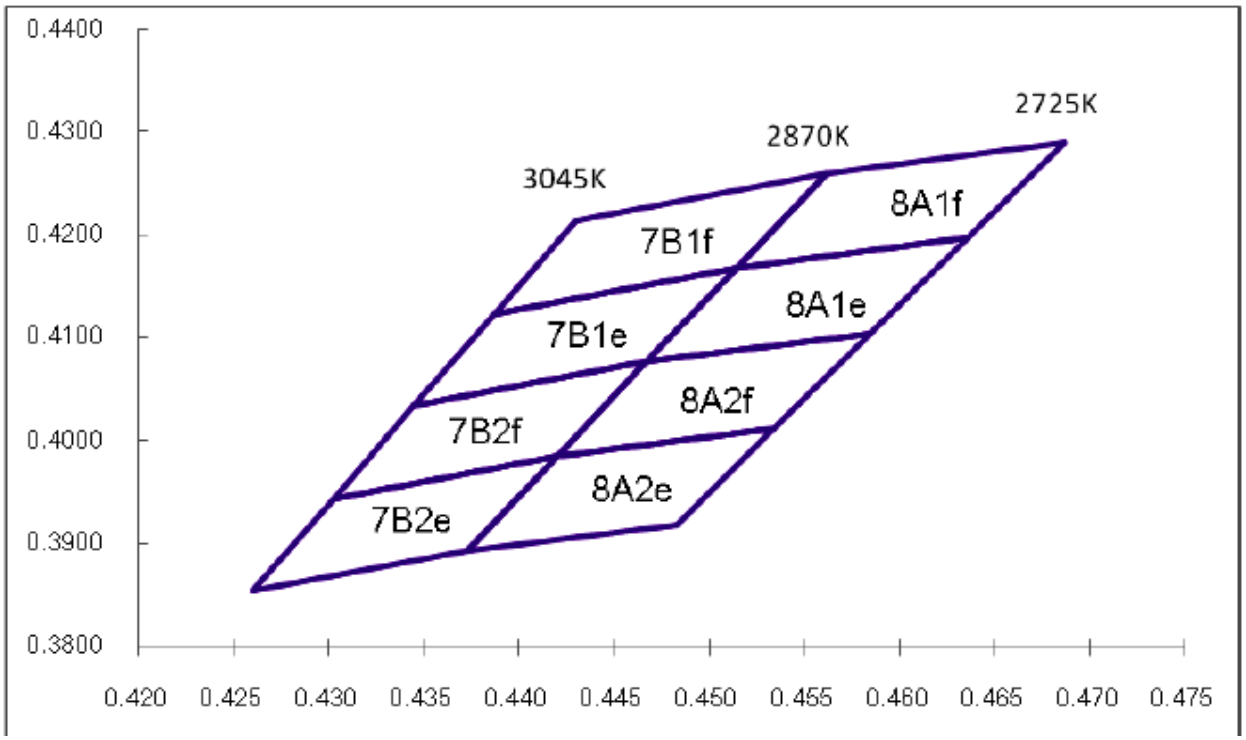
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Lumen	Φ	100	110		lm	IF =150mA
Viewing Angle	2θ 1/2		120		deg	IF =150mA
Color Coordinate	X		0.4343			IF =150mA
	Y		0.4029			
Forward Voltage	VF		6.4	7.0	V	IF =150mA
Reverse Current	IR			10	μA	Vr = 10V
Color Rendering Index	CRI	80				IF =150mA
Color Temperature	CCT	2725		3045	K	IF =150mA

■ Range of bins

Bin Code	A	B	C	D	E	F	G	
VF(V)	5.6-5.8	5.8-6.0	6.0-6.2	6.2-6.4	6.4-6.6	6.6-6.8	6.8-7.0	
Bin Code	33	34	35					
LM(lm)	100-110	110-120	120-130					
WL	7B1f	7B1e	7B2f	7B2e	8A1f	8A2f	8A1e	8A2e

Part No.：SLE-3030NY40-B1W-EC (WARM WHITE)

■ Color Coordinate Comparison



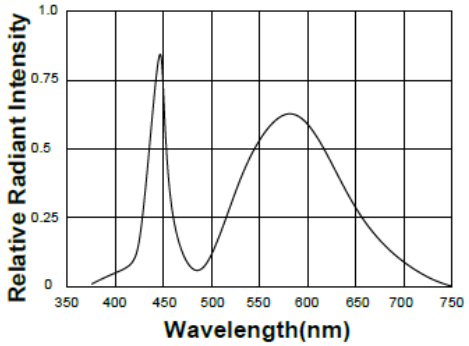
Color Rank

BIN	x	y	BIN	x	y	BIN	x	y
7B1f	0.4562	0.4260	7B1e	0.4515	0.4168	7B2f	0.4467	0.4076
	0.4515	0.4168		0.4467	0.4076		0.4420	0.3985
	0.4388	0.4123		0.4345	0.4033		0.4303	0.3944
	0.4430	0.4213		0.4388	0.4123		0.4345	0.4033
7B2e	0.4420	0.3985	8A1f	0.4687	0.4289	8A2f	0.4585	0.4104
	0.4373	0.3893		0.4636	0.4197		0.4534	0.4011
	0.4260	0.3854		0.4515	0.4168		0.4420	0.3985
	0.4303	0.3944		0.4562	0.4260		0.4467	0.4076
8A1e	0.4636	0.4197	8A2e	0.4534	0.4011			
	0.4585	0.4104		0.4483	0.3918			
	0.4467	0.4076		0.4373	0.3893			
	0.4515	0.4168		0.4420	0.3985			

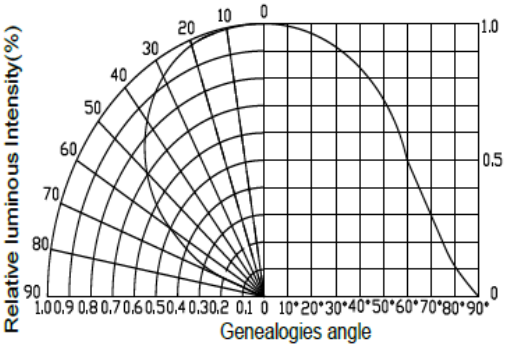
Part No.：SLE-3030NY40-B1W-EC (WARM WHITE)

■ Optical Characteristics-1

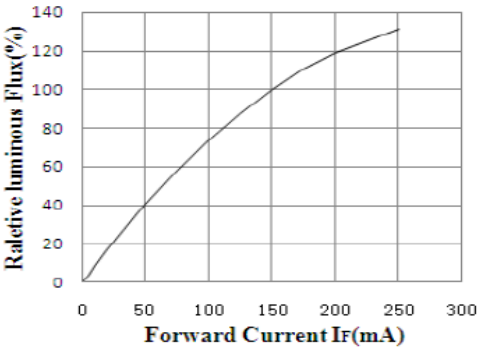
1).Relative Spectral Distribution



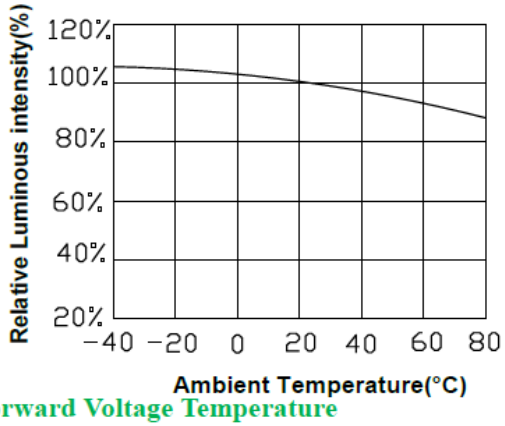
2).Typical Spatial Distribution



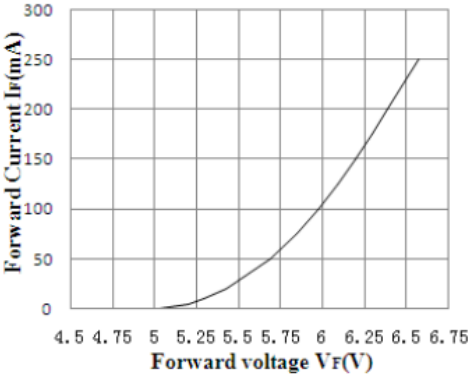
3).Relative Luminous Flux .Current



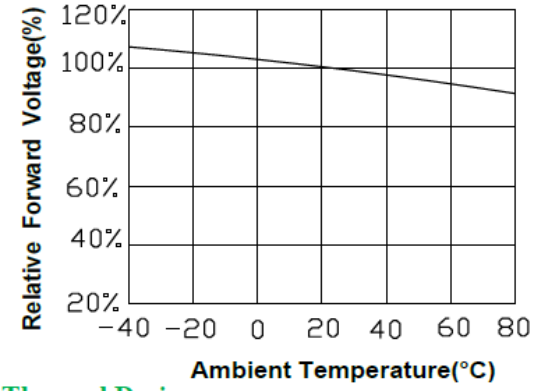
4).Relative Luminous Flux .Ambient Temperature



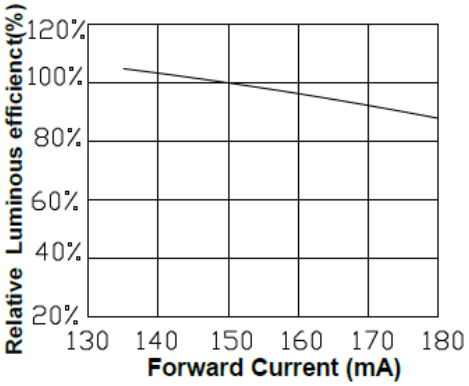
5). Electrical Characteristics



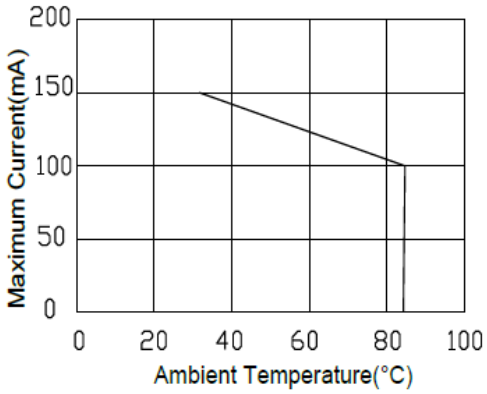
6).Forward Voltage Temperature



7). Relative Emission Efficiency. Current



8).Thermal Design



Part No.：SLE-3030NY40-B1W-EC (WARM WHITE)

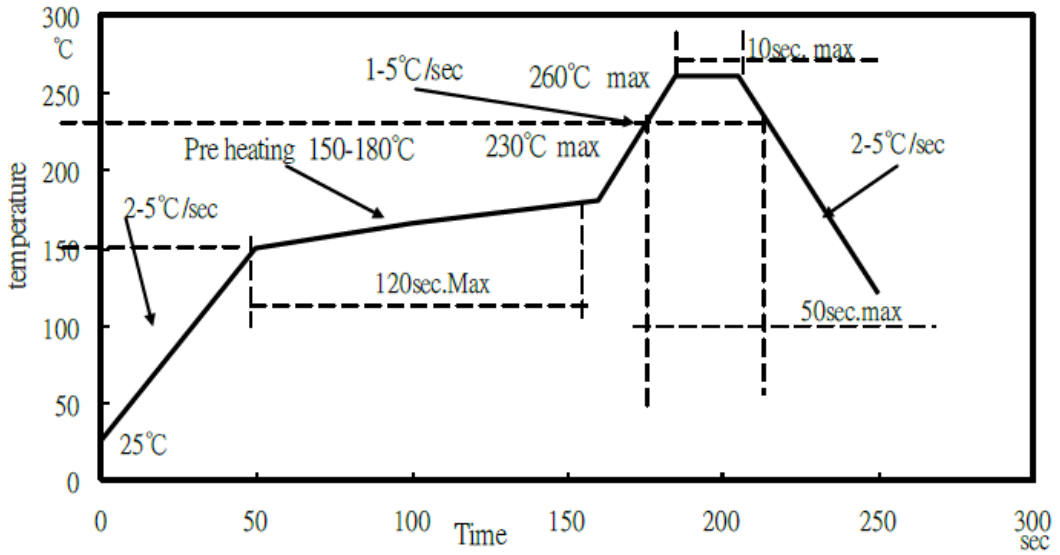
■ Test Items and Results of Reliability

Test Item	Test Conditions	Duration/ Cycle	Number of Damage	Reference
Temperature Cycle	-40℃ 30min ↑↓ 1 min 85℃ 30min	100 cycles	0/22	JEITA ED-4701 300 303
High Temperature Storage	T_a=100℃±5℃	1000 hrs	0/22	EIAJED-4701 200 201
High Humidity Heat Life Test	T_a=85℃ RH=85% I_F =100mA	500 hrs	0/22	Tested standard
Humidity Heat Storage	T_a=85℃ RH=85%	1000 hrs	0/22	EIAJED-4701 100 103
Life Test	T_a=25℃ I_F =150mA	1000 hrs	0/22	Tested standard
Low Temperature Life Test	T_a=-40℃ I_F =150mA	1000 hrs	0/22	Tested standard
High Temperature Life Test	T_a=85℃ I_F =150mA	1000 hrs	0/22	Tested standard

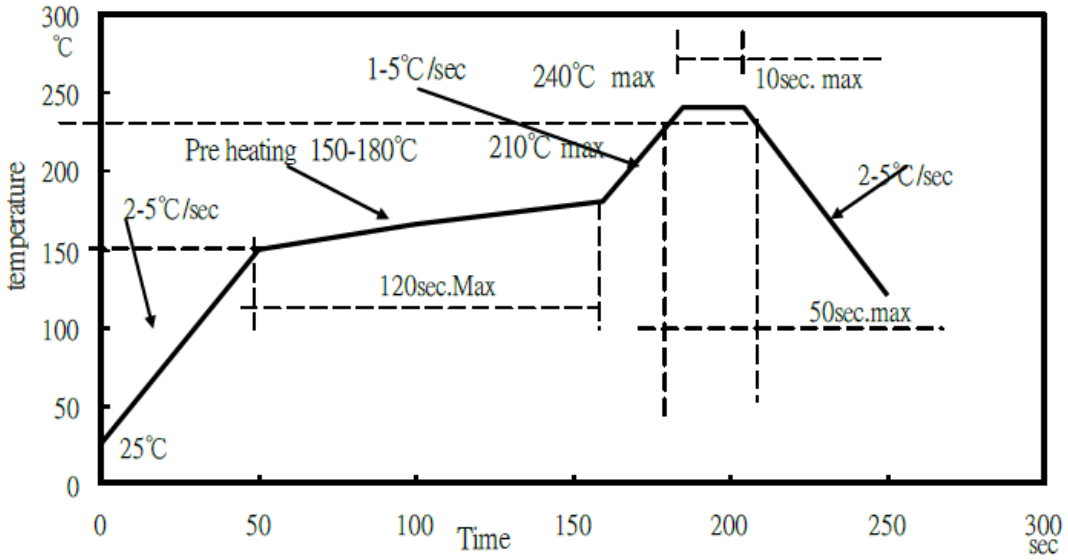
Part No.：SLE-3030NY40-B1W-EC (WARM WHITE)

■ Reflow Profile

1. I_R reflow soldering Profile for Lead Free solder



2. I_R reflow soldering Profile for Lead solder



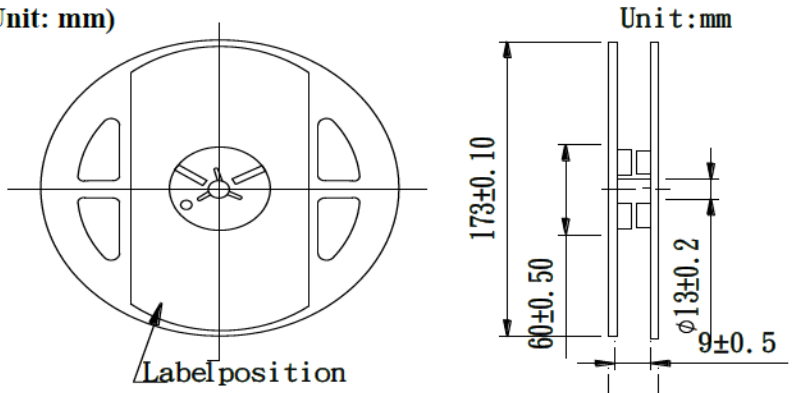
Notes:

1. We recommend the reflow temperature 240℃ (±5℃).the maximum soldering temperature should be limited to 260℃.
2. Don't cause stress to the silicone resin while it is exposed to high temperature.
3. Number of reflow process shall be less than 3 times.

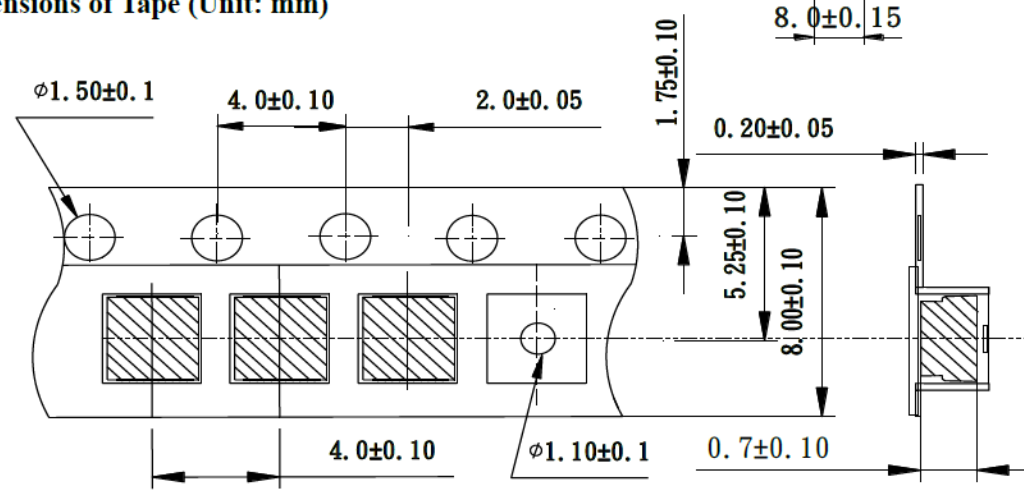
Part No.：SLE-3030NY40-B1W-EC (WARM WHITE)

■ Packing

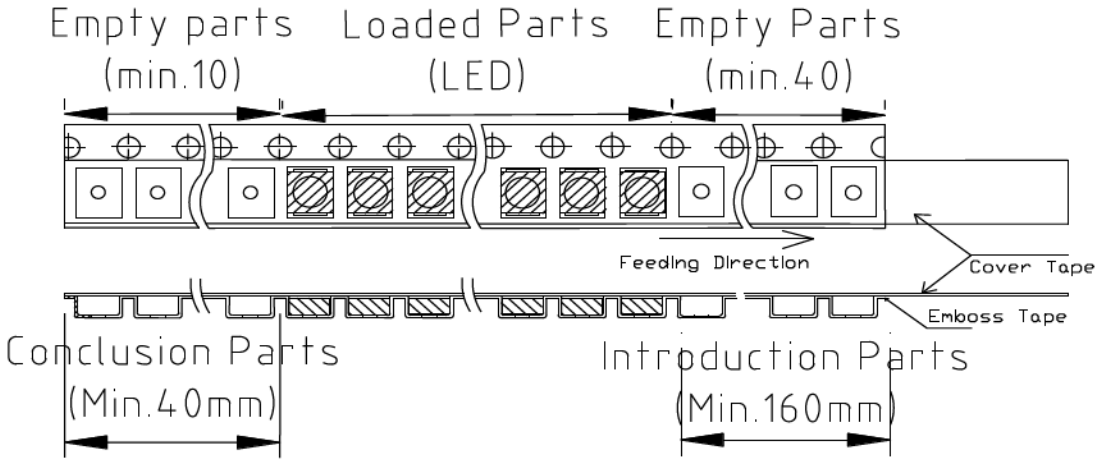
- **Dimensions of Reel (Unit: mm)**



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



- **Arrangement of Tape**



Notes:

1. Empty component pockets are sealed with top cover tape
2. The max loss number of SMD is 2pcs
3. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications
4. 4,000pcs per reel

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※Note：

Recommended storage conditions：

1. Storage Condition:
   a. don't open the sealed bag until the Reflow Soldering。
   b. before open the sealed bag, please keep bag at Ambient Temperature from 5 to 25°C and Relative Humidity < 60%。
   c. storage life: within 6 months。
2. Once overdue the storage life or after open the sealed bag for 12 hours , the LED has to be oven at 70°C for 24 hours before the Reflow Soldering。
3. After oven the LED, the Reflow Soldering has to be completed within 12 hours.。
   Otherwise, the oven LED has to be sealed in bag again and storage at Ambient Temperature of 23 +/- 5°C & RH 5~30%。