

SPECIFICATION FOR APPROVAL

Customer : _____

Customer Part No: _____

SHINING Part No: SN-NE2835PACAG-Z

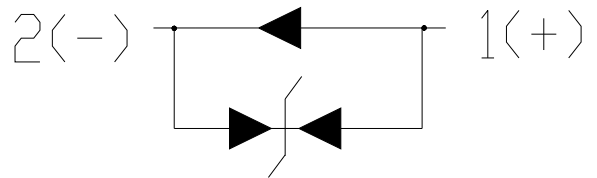
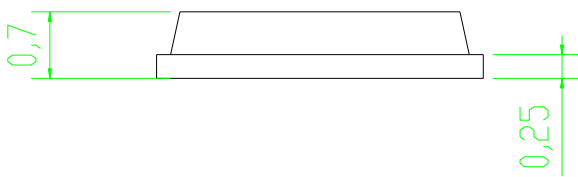
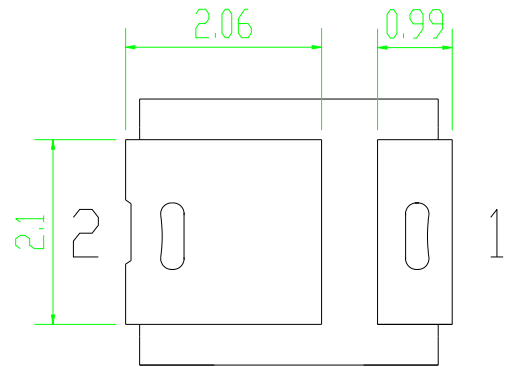
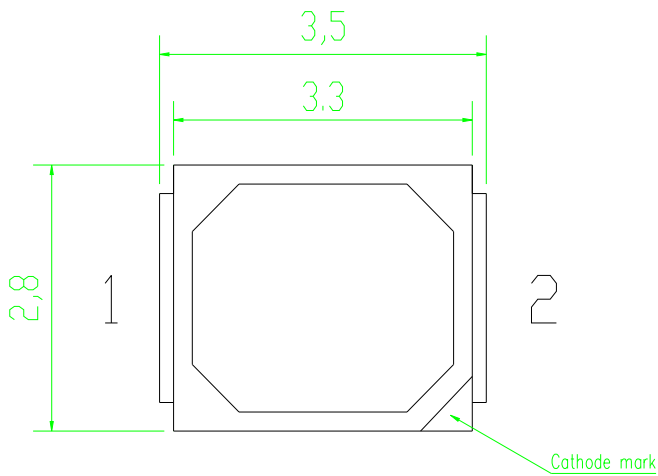
Revision History		
Date	Revision History	Prepared
2022.10.15	New Version	A/0


Confirmed By Customer	Approval by	Prepared by
	Liusan	Shaochengcheng

Feature

- △ Viewing angle:120 deg
- △ The materials of the LED dice is InGaN
- △ 3.50mm×2.80mm×0.7mm
- △ Pb-free
- △ RoHS compliant lead-free soldering compatible
- △ ESD protection
- △ AEC-Q102 Qualified
- △ Precondition: Bases on JEDEC J-STD 020D Level 3

Package Outline



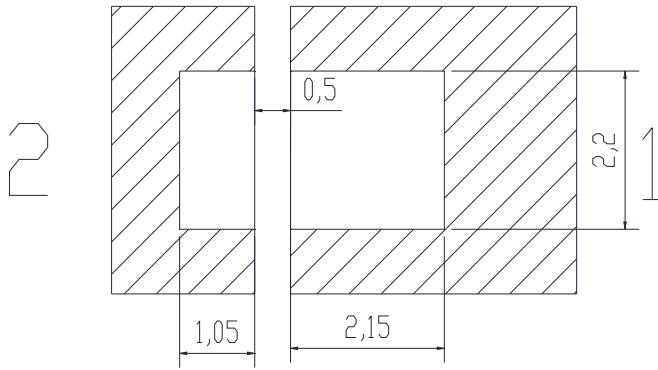


ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

NOTES:

1. All dimensions are in millimeters ;
2. Tolerances are ±0.2mm unless otherwise noted.

Recommended Solder Pad



Exposed Cu for soldering

Cu area with solder mask for heat dissipation

Absolute maximum ratings at Ta=25°C

Parameter	Symbol	Value	Unit
Forward current	If	100	mA
Reverse voltage	Vr	5	V
Operating temperature range	Top	-40 ~+110	°C
Storage temperature range	Tstg	-40~+110	°C
Pulse Forward Current (Pulse Width \leq 1 msec. and Duty \leq 1/10)	Ifp	150	mA
Electrostatic Discharge	ESD	6000(HBM)	V

Electro-optical characteristics at Ta=25°C

Parameter	Test Condition	Symbol	Value			Unit
			Min.	Typ.	Max.	
Forward voltage	If=60mA	Vf	2.4	--	3.0	V
Luminous intensity	If=60mA	Φ	10	--	20	lm
Wavelength	If=60mA	WD	490	495	505	nm
Viewing angle at 50% Iv	If=60mA	2 θ 1/2	--	120	--	Deg
Reverse current	Vr=5V	Ir	--	--	10	μ A

NOTE: (Tolerance: IV \pm 10%, Vf \pm 0.1V, WD \pm 1nm)

Forward voltage range

Forward Voltage Unit: V@60mA		
Bin Code	MIN	MAX
F03	2.4	2.6
F04	2.6	2.8
F05	2.8	3.0

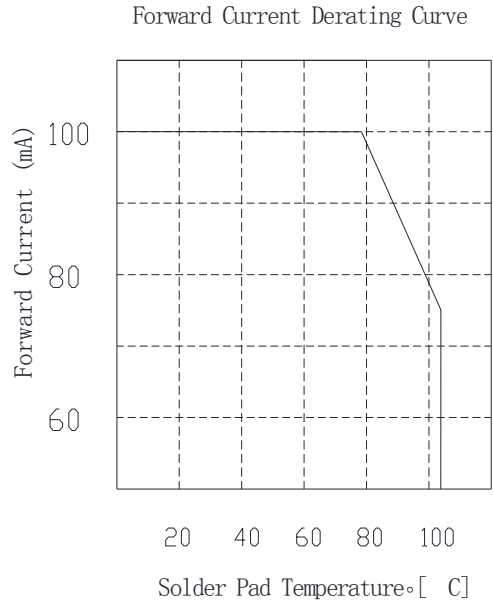
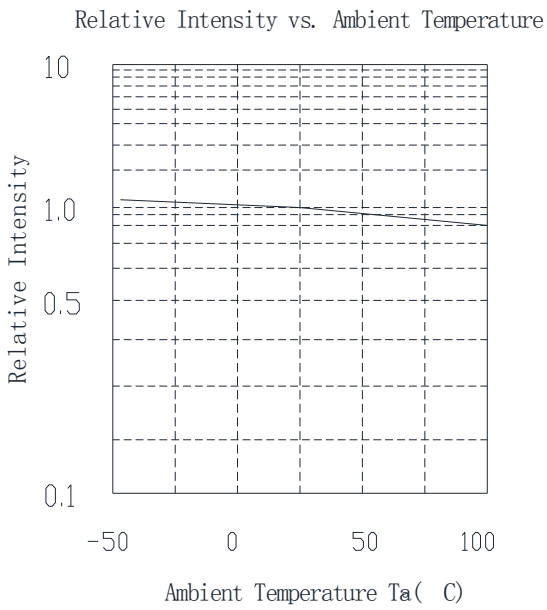
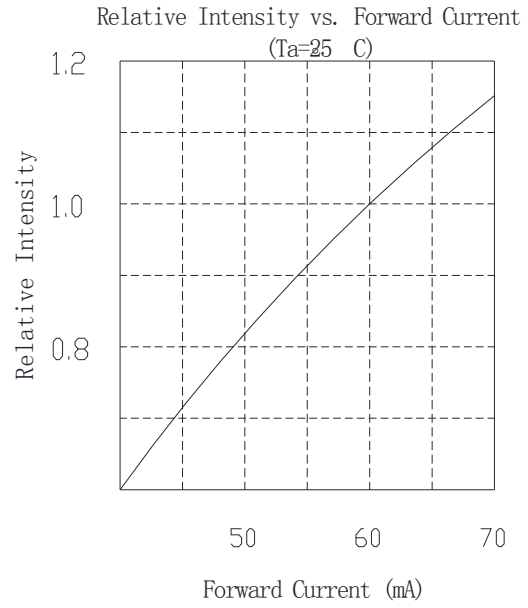
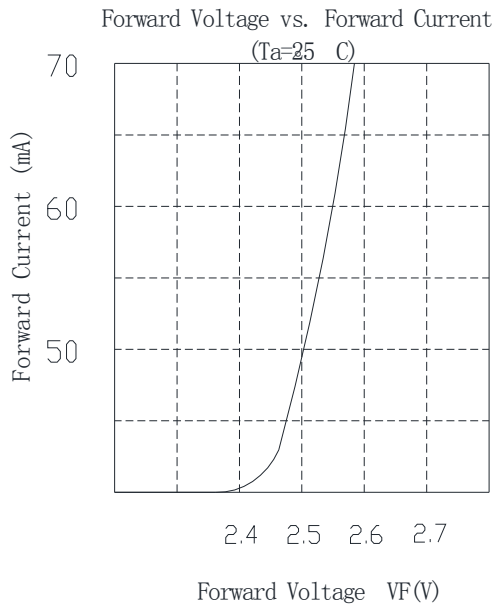
Luminous intensity range

Luminous Intensity Unit: lm@60mA		
Bin Code	MIN	MAX
C13	10	12
C14	12	14
C15	14	16
C16	16	18
C17	18	20

Chromaticity range

Dominant Wavelength Unit: nm@60mA		
Bin Code	MIN	MAX
1G	490	495
2G	495	500
3G	500	505

Typical optical characteristics curves



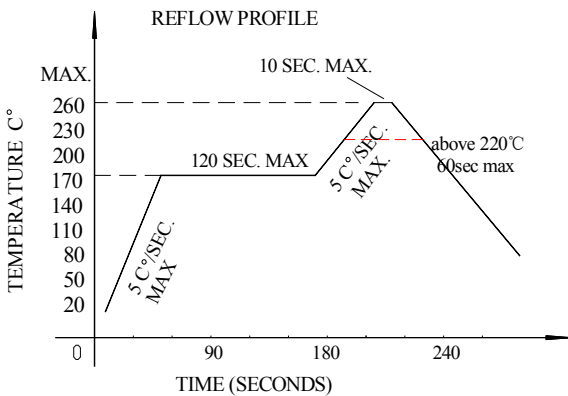
Reflow profile

- Soldering condition
 - Recommended soldering conditions

Reflow Soldering		Hand Soldering	
Pre-heat	160~180℃	Temperature	300℃ Max.
Pre-heat time	120 seconds Max.	Soldering time	3 second Max. (one time only)
Peak temperature	260℃ Max.		
Soldering time	10 seconds Max.		
Condition	Refer to Temperature-profile		

- After reflow soldering rapid cooling should be avoided

- Temperature-profile (Surface of circuit board)
Use the following conditions shown in the figure.



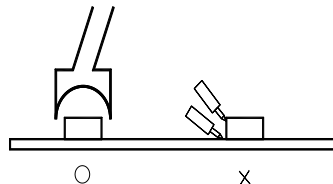
1. Reflow soldering should not be done more than two times
2. When soldering ,do not put stress on the LEDs during heating

■ Soldering iron

1. When hand soldering, keep the temperature of the iron under 300℃, and at that temperature keep the time under 3 sec.
2. The hand soldering should be done only a time
3. The basic spec is ≤5 sec. when the temperature of 260℃, do not contact the resin when hand soldering

■ Rework

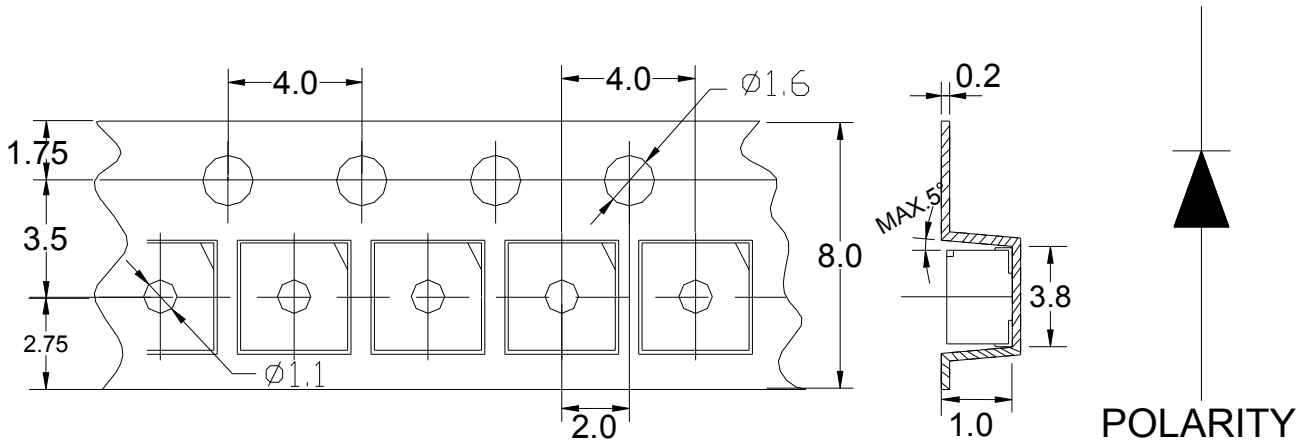
1. Customer must finish rework within 5 sec und
2. The head of iron can not touch the resin
3. Twin-head type is preferred.



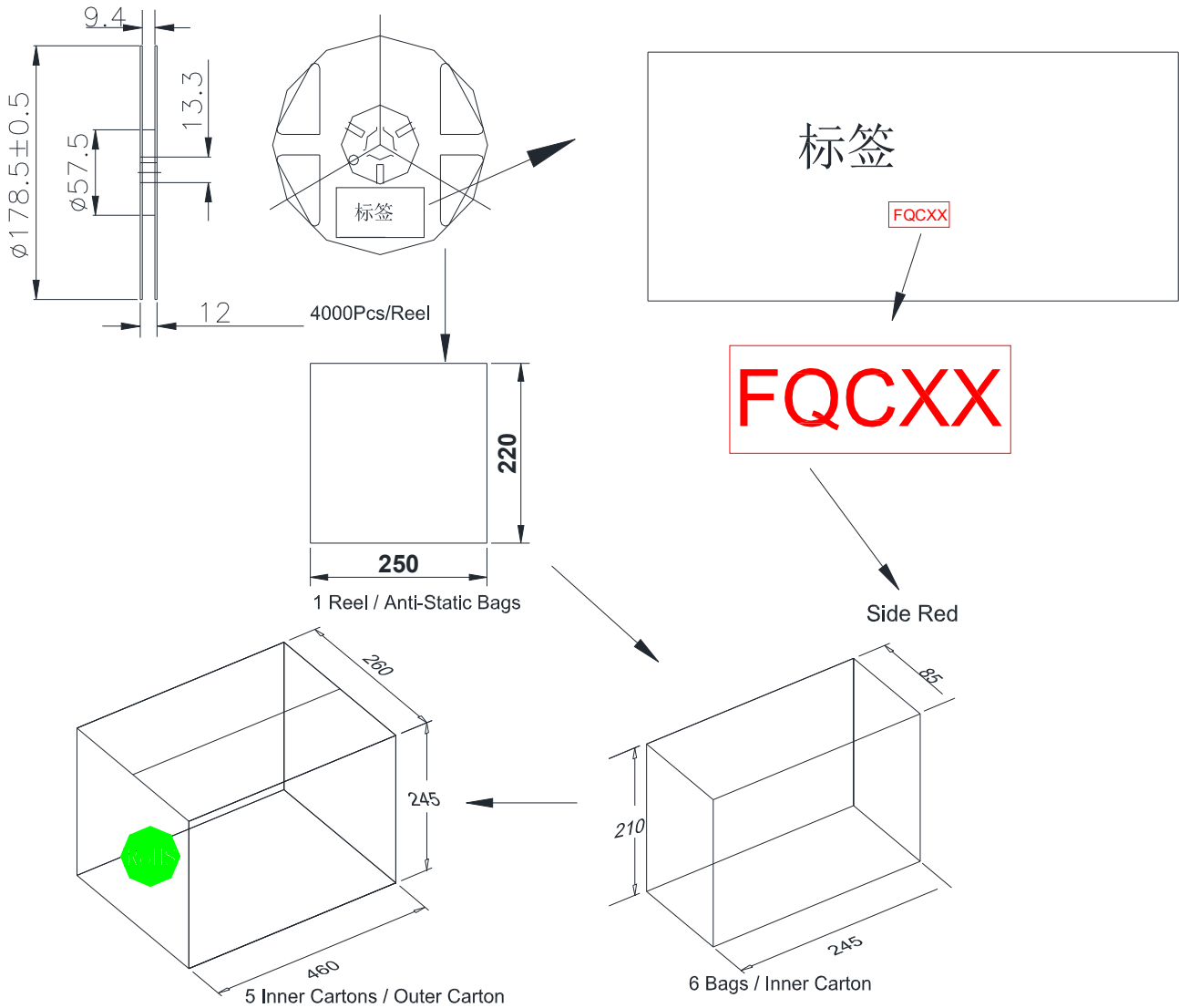
■ CAUTIONS

The encapsulated material of the LEDs is silicone . Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when using the picking up nozzle, the pressure on the silicone resin should be proper.

Packaging Specifications



Packaging specifications



CAUTIONS

Storage conditions

Before opening the package:

The LEDs should be kept at 30°C or less and 70%RH or less. The LEDs should be used within a year. When storing the LEDs, moisture proof packaging with absorbent material (silica gel) is recommended.

After opening the package:

The LEDs should be kept at 30°C or less and 50%RH or less. The LEDs should be soldered within 24 hours (1days) after opening the package. If unused LEDs remain, they should be stored in moisture proof packages, such as sealed containers with packages of moisture absorbent material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

This specification shining has the right of final interpretation