



**THE DATASHEET OF
ESS-2214SBD-Z-2**



Jiangsu Everstar Electronics Co., Ltd.

Address:No.6 Xiangshan Rd, Tianmuhu Industry Park, Liyang City, Jiangsu Province, China

TEL: +86-519-87557772

FAX: +86-519-87557773

Http: www.everstarelect.com

DATA SHEET

ESL NO.. : ESS-2214SBD-Z-2

CUS NO. :

REV : A / 0

Producer: _____

Eden

Auditor: _____

Approver: _____

Jack

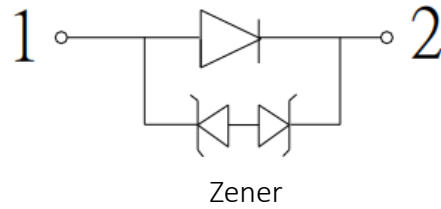
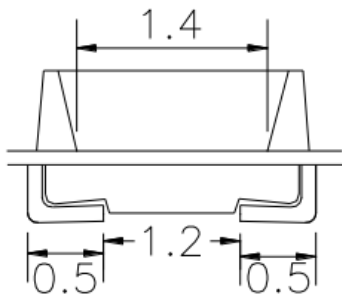
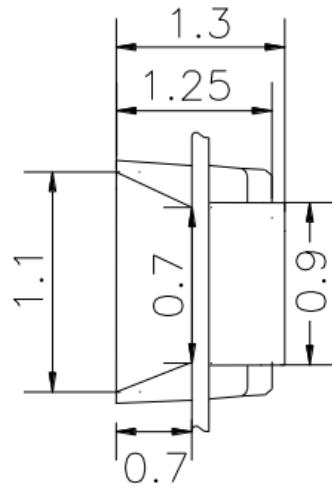
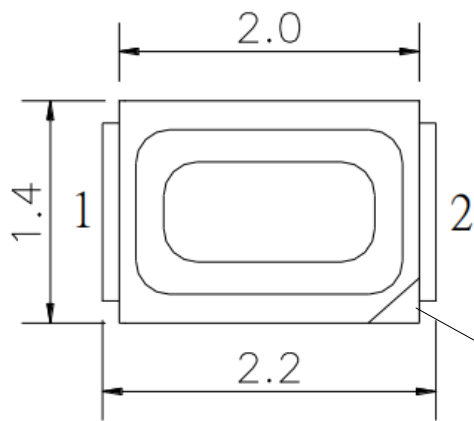
CUSTOMER'S APPROVAL : _____

DCC : _____

2214 SMD LED

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Note:

All Dimensions are in millimeters.

2214 SMD LED

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FEATURES

- * 2214 SMD LED
- * Low operating voltage
- * PB Free products (Compliant with EU' s RoHS)
- * Moisture proof grade: L4
- * High reliability
- * Low power consumption, long life

CHIP MATERIALS:

- * Dice Material : InGaN
- * Lens Color: Color on demand blue
- * Light Color: White

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ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Symbol	DESCRIPTION	Rated	Unit
Topr	Operating Temperature Range	-30°C ~ +85°C	
Tstg	Storage Temperature Range	-40°C ~ +100°C	
VR	Reverse Voltage Per Chip	5	V
PD	Power Dissipation Per Chip	120	mW
IF	Average Forward Current Per Chip	30	mA
IFp	Peak Forward Current Per Chip	100	mA

ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

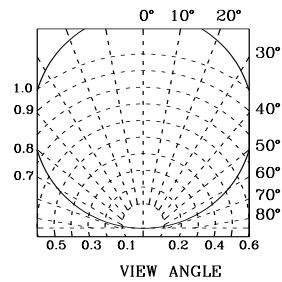
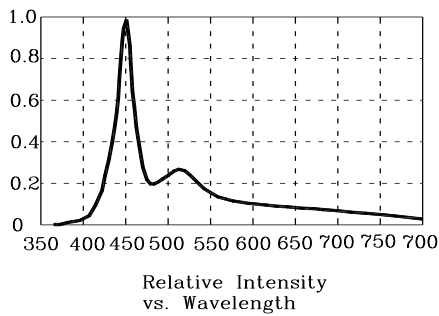
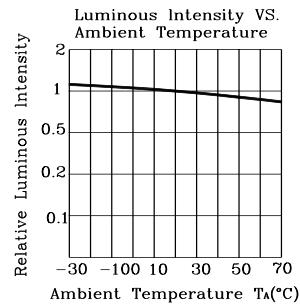
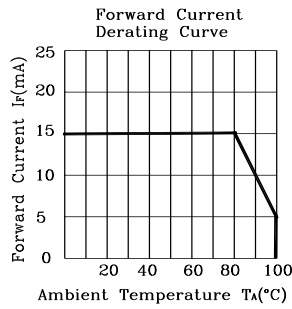
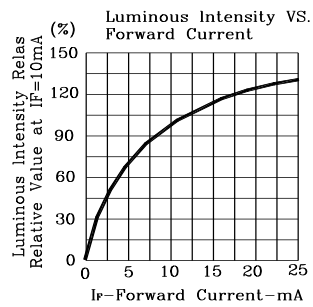
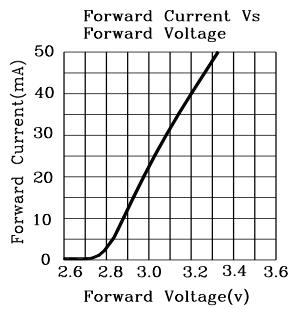
SYMBOL	PARAMETER	TEST CONDITION	MIN.	TYP	MAX	UNIT
VF	Forward Voltage	IF = 10mA	2.7		3.4	V
IF	Peak Forward Current	VF=3.0V	1.0		20	mA
2 θ 1/2	Half Intensity Angle	IF = 10mA	----	120	----	deg
IV	Luminous Intensity	IF = 10mA	70		140	mcd
IR	Reverse Current	VR = 5V	----	----	5	μA
X	Chromaticity Coordinate	IF = 10mA		0.195		
Y		IF = 10mA		0.210		
ESD	Electro-Static discharge	IF = 10mA		8000		v

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SPECTRUM CHART



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BIN NAMEING

BIN	Luminous Intensity(mcd)
1	70-90
2	90-110
3	110-140

BIN	Forward Voltage(V)
A	2.7-2.9
B	2.9-3.2
C	3.2-3.4

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Color Chromaticity Groups

6S	
0.1945	0.2204
0.2007	0.2184
0.1958	0.1988
0.1893	0.2008

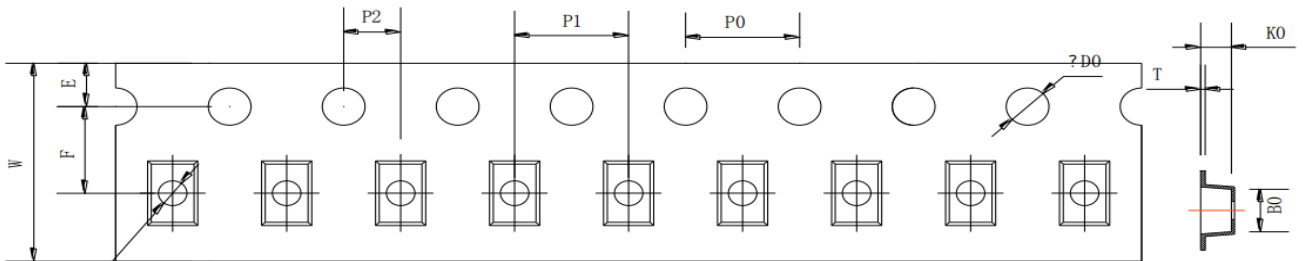
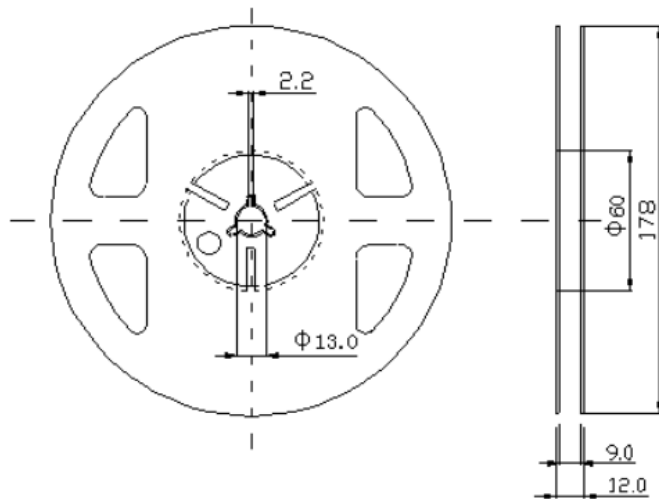


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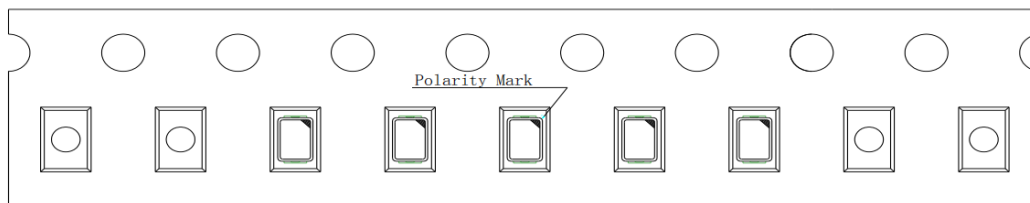
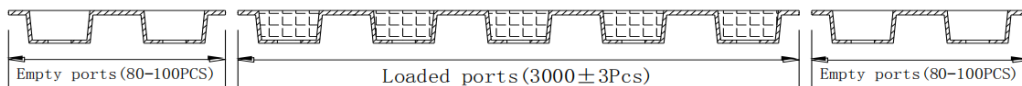
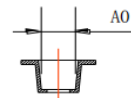
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Package Tape Specifications: (3000 pcs/Reel)



D1

symbol	A0	B0	K0	P0	P1	P2
Spec	1.50 ±0.05	2.35 ±0.05	1.48 ±0.10	4.00 ±0.10	4.00 ±0.10	2.00 ±0.05
symbol	W	T	E	F	D0	D1
Spec	8.00 ±0.10	0.22 ±0.05	1.75 ±0.10	3.50 ±0.10	1.50 ^{+0.10} ₀	1.00 ±0.05





2214 SMD LED

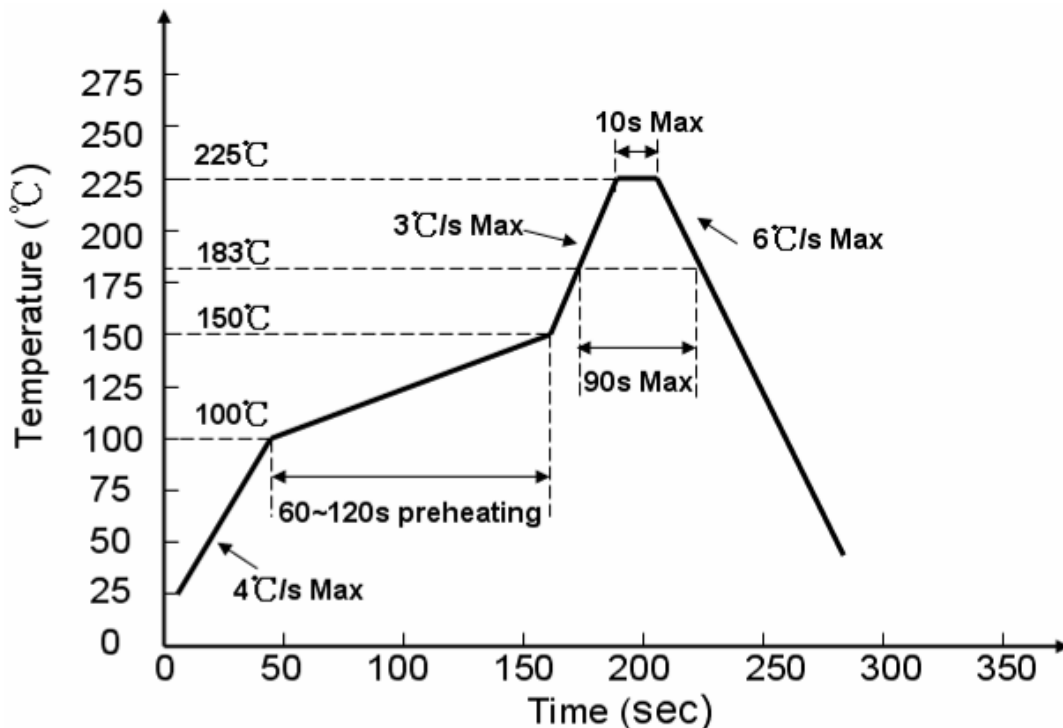
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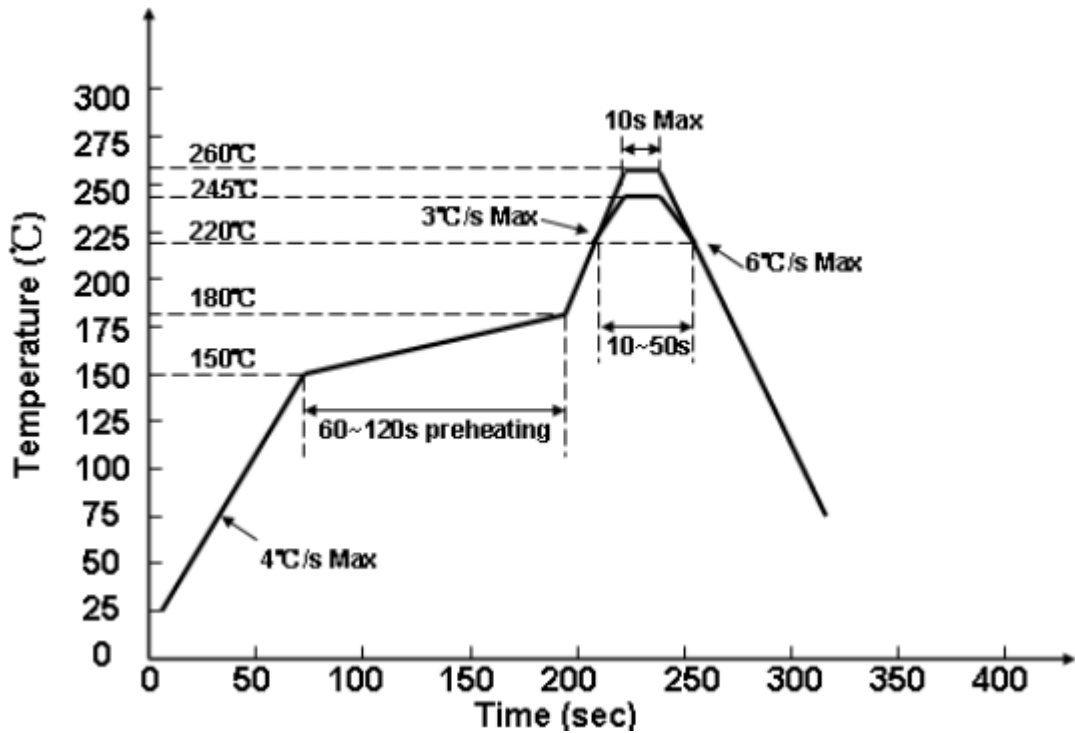
※ Precautions for use :

- 1) Customer must apply the current limiting resistor in the circuit so as to drive the LEDs within the rated current. Otherwise slight voltage shift maybe will cause big current change and burn out will happen.
- 2) Also, caution should be taken not to overload the LEDs with instantaneous high voltage at the turning ON and OFF of the circuit.
- 3) Storage:
 - a) 3.1 Don't open the moisture proof bag before ready to use the LEDs.
 - b) 3.2 The LEDs should be kept at 30°C or less and 60%RH or less before opening the package. The max. storage period before opening the package is 1 year.
 - c) 3.3 After opening the package, the LEDs should be kept at 30°C/35%RH or less, and it should be used within 7 days.
 - d) 3.4 If the LEDs be kept over the conditions of 3.4, baking is required before mounting.
Baking condition as below: 60±5°C for 12 hrs.
- 4) Soldering condition:

4.1 Lead Solder:



4.2 Lead Free Solder:



Note:

- a) 1.Reflow soldering should not be done more than two times.
- b) 2. Don't put stress on the LEDs when soldering.
- c) 3.Don't warp the circuit board before it have been returned to normal ambient conditions after soldering

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