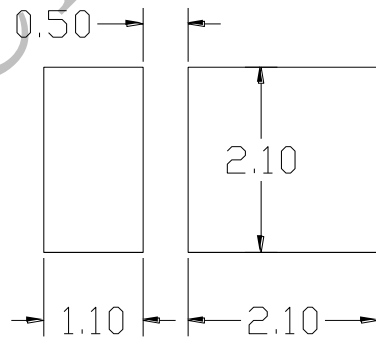
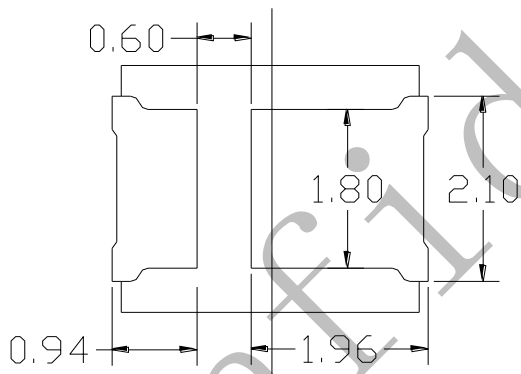
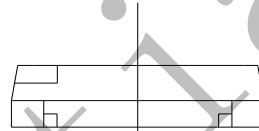
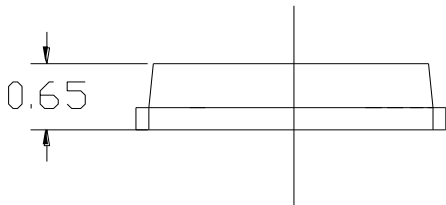
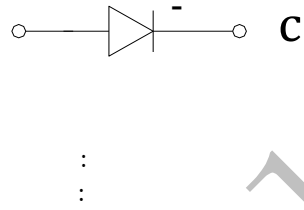
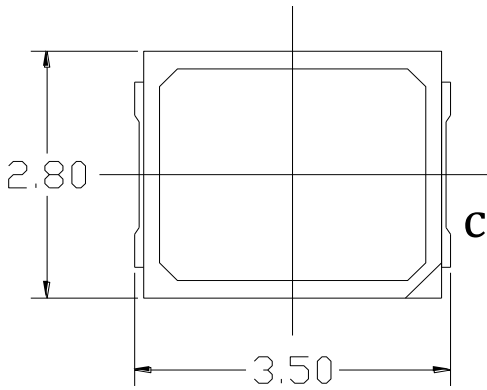


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Package Dimension



NOTES:

1.All dimensions units are mm. ()

2.All dimensions tolerances are ± 0.2 mm unless otherwise noted. (± 0.2)

Electrical / Optical Characteristics at Ts=25°C

Item	Code	Symbol	Test Condition	Value			Unit
				Min.	Max.	Typ.	
Forward Voltage	Rank G1	Vf	IF=150mA	2.8	2.9	/	V
	Rank G2			2.9	3.0		V
	Rank H1			3.0	3.1		V
	Rank H2			3.1	3.2		V
	Rank I1			3.2	3.3		V
	Rank I2			3.3	3.4		V
RF-W30HI35DS-FH-J Luminous flux	Rank TFA	∅	IF=150mA	65	70	67	lm
	Rank TGA			70	75		lm
	Rank THA			75	80		lm
RF-W35HI35DS-FH-J Luminous flux	Rank TFA	∅	IF=150mA	65	70	70	lm
	Rank TGA			70	75		lm
	Rank THA			75	80		lm
RF-W40HI35DS-FH-J Luminous flux	Rank TFA	∅	IF=150mA	65	70	74	lm
	Rank TGA			70	75		lm
	Rank THA			75	80		lm
RF-W50HI35DS-FH-J Luminous flux	Rank TFA	∅	IF=150mA	65	70	74	lm
	Rank TGA			70	75		lm
	Rank THA			75	80		lm
RF-W57HI35DS-FH-J Luminous flux	Rank TFA	∅	IF=150mA	65	70	74	lm
	Rank TGA			70	75		lm
	Rank THA			75	80		
	Rank TFA			65	70		

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Absolute Maximum Ratings at Ts=25°C

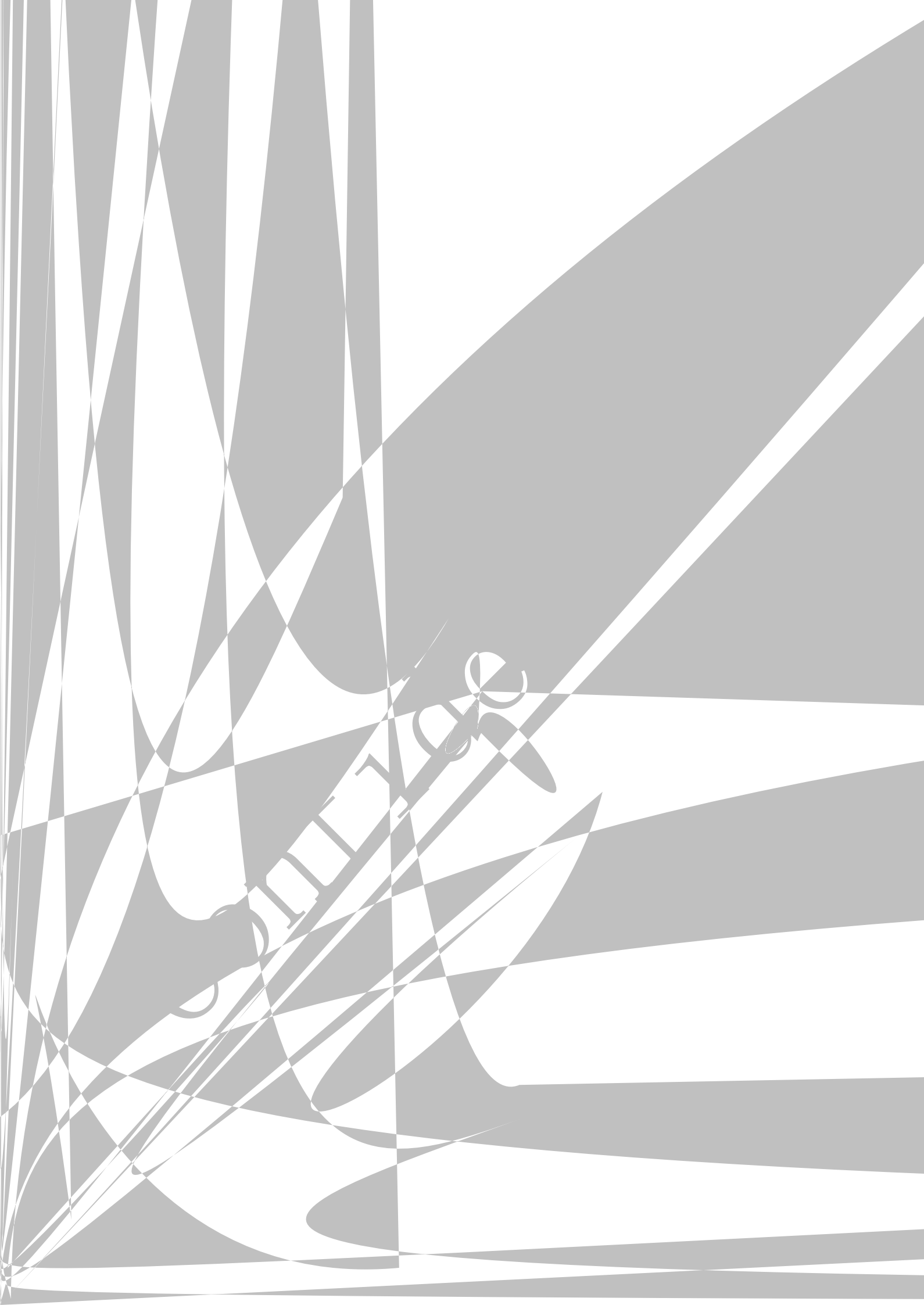
Parameter	Symbol	Rating	Units
Power Dissipation	Pd	612	mW
Forward Current	IF	180	mA
Peak Forward Current	IFP	240	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge(HBM)	ESD	2000	V
Operating Temperature	Topr	-40 ~ +85	
Storage Temperature	Tstg	-40 ~ +100	
Junction Temperature	Tj	115	

Note:

- 1.1/10 Duty cycle, pulse width 10ms. 10ms, 1/10.
- 2.The above forward voltage measurement allowance tolerance is 0.1V. 0.1V.
- 3.The above color coordinates measurement allowance tolerance is 0.003. 0.003.
4. The above luminous flux measurement allowance tolerance $\pm 10\%$. $\pm 10\%$.
- 5.Care is to be taken that power dissipation does not exceed the absolute maximum rating of the product.
- 6.When the LEDs are in operation the maximum current should be decided after measuring the package temperature, junction temperature should not exceed the maximum rate. LED

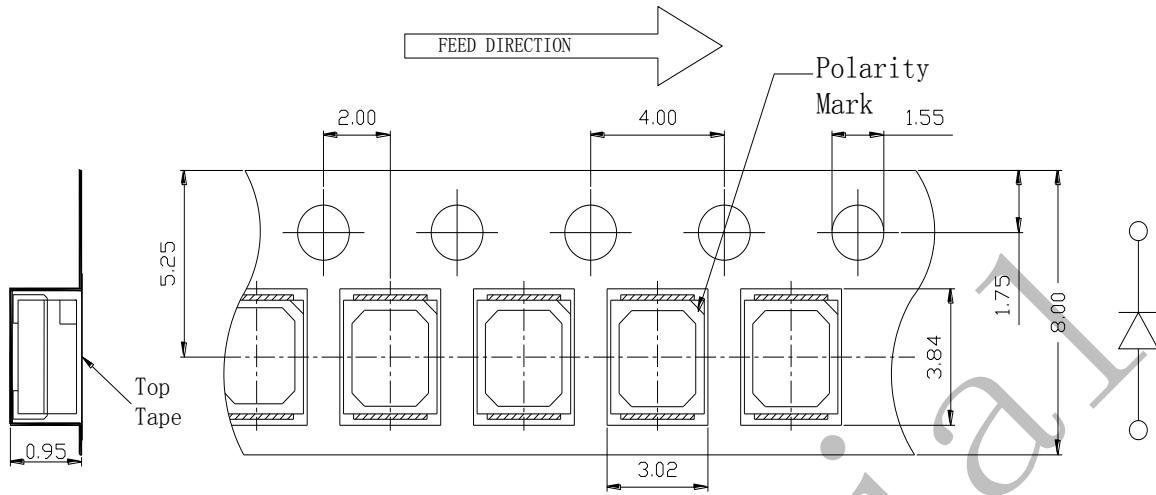
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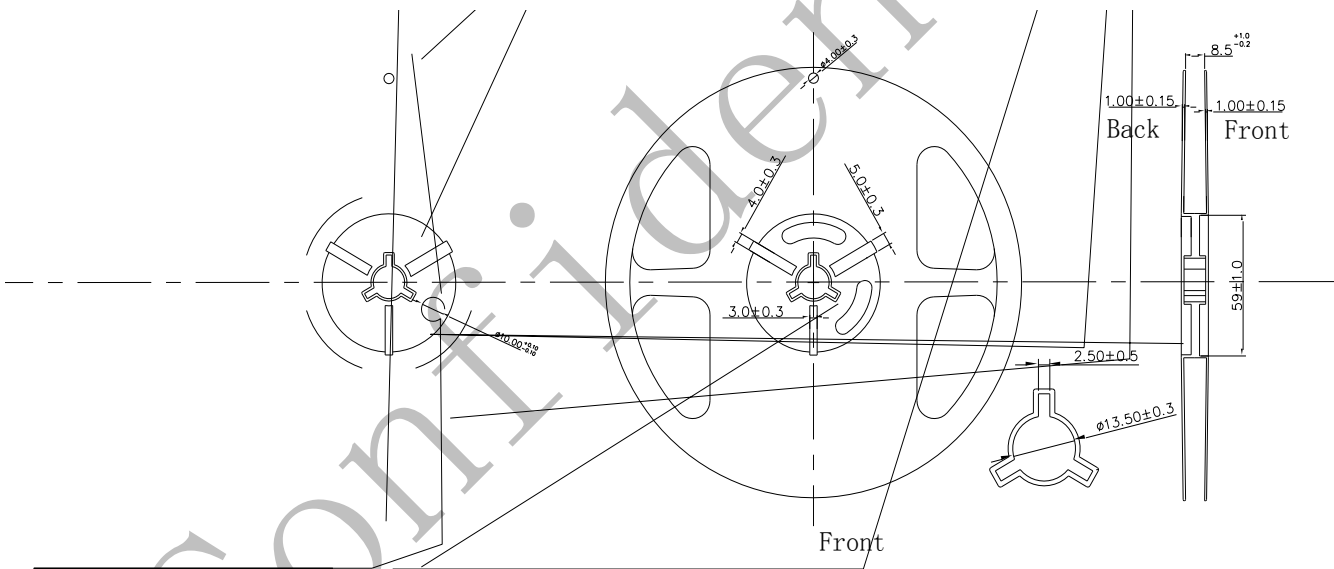


Packaging Specifications

Carrier Tape Dimensions



Reel Dimension





Note:

The tolerances unless mentioned ± 0.1 mm. Unit : mm

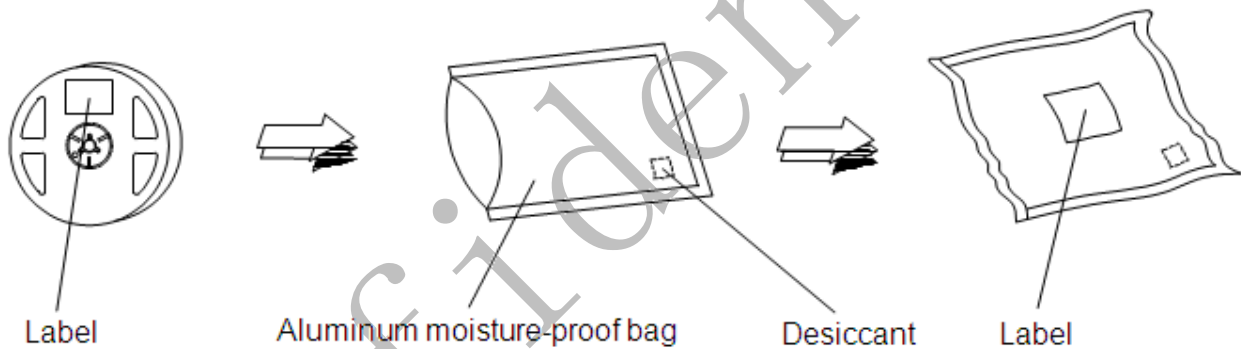
± 0.1

■ Label Form Specification

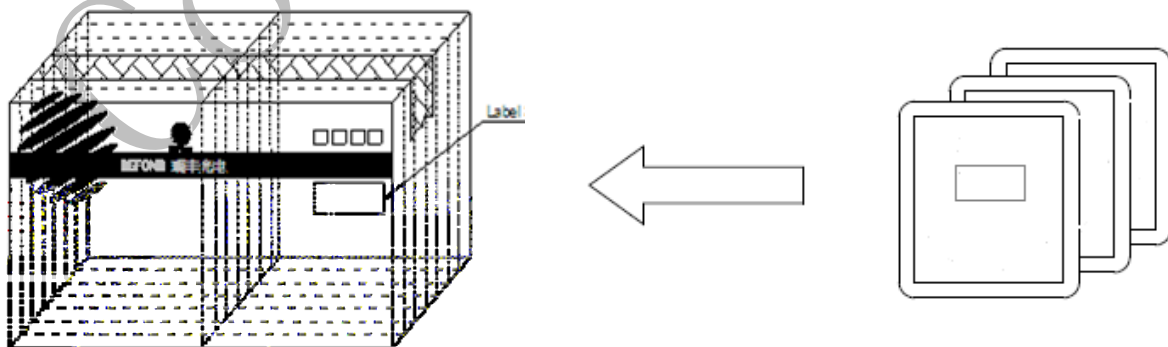
PART NO.	
SPEC NO.	
LOT NO.	
<hr/>	
BIN CODE	
Φ	XY
V	
	QTY:
	DATE:

PART NO.	Part Number
SPEC	Spec Number
LOT NO.	Lot Number
BIN CODE	Bin Code
	Luminous flux
X/Y	Chromaticity Bin
VF	Forward Voltage
QTY	Packing Quantity
DATE	Made Date

■ Moisture Resistant Packing Process



■ Cardboard Box



Reliability Test Items And Conditions

Test Items	Ref.Standard	Test Condition	Time	Quantity	Ac/Re /
Reflow	JESD22-B106	Temp:260 max T=10 sec	2times	10Pcs	0/1
Temperature Cycle	JESD22-A104	100 30 min. 6! 30 min. -40 30 min.	300Cycles	10Pcs	0/1
Thermal Shock	JESD22-A106	-40 15min 10sec 100 15min	300Cycles	10Pcs	0/1
High Temperature Storage	JESD22-A103	Temp.:100	1000Hrs	10Pcs	0/1
Low Temperature Storage	JESD22-A119	Temp.: -40	1000Hrs	10Pcs	0/1
Life Test	JESD22-A108	Ta=25 IF=150mA	1000Hrs	10Pcs	0/1
High Temperature High Humidity Life Test	JESD22-A101	60 / 90%RH IF=150mA	1000Hrs	10Pcs	0/1

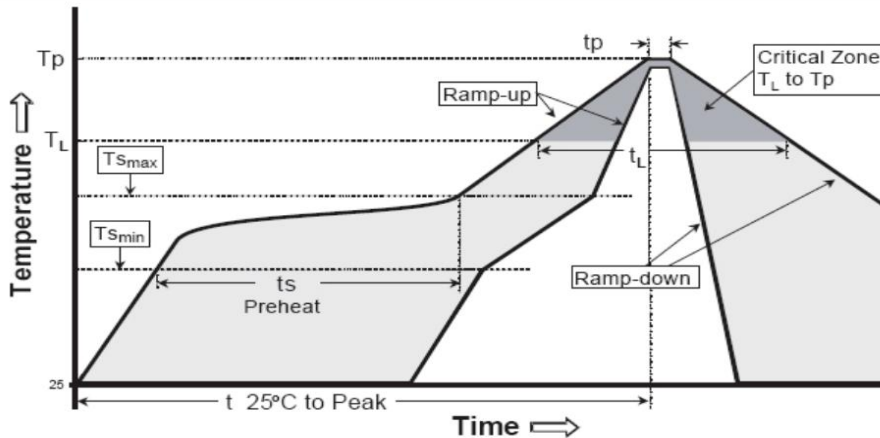
Criteria For Judging Damage

Test Items	Symbol	Test Condition	Criteria For Judgement 判定 准	Applicable project 适用 目
Forward Voltage	V _f	IF=150mA	10%	Reflow Temperature Cycle High and Low Temperature Storage Life Test
Luminous Flux	∅	IF=150mA	Maintenance 85% 光通 持率	Storage Life Test
High Temperature High Humidity Life Test 高温高湿老化	/	IF=150mA	No open circuit, shortcircuit or flicker 无 路,短路,	High Temperature High Humidity Life Test

Note:

- 1.The Reliability tests are based on Refond existing test platform.
- 2.The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.

SMT Reflow Soldering Instructions SMT



T _{Smax}	T _p	3 ° C/
(T _{Smin})		150 ° C
(T _{Smax})		200 ° C
t _{Smin}	t _{Smax}	60 - 120
(T _L)		217 ° C
(t _L)		60
/	(T _p)	260 ° C
:	t _p	10
(t _p)	5 ° C	30
		6 ° C/
25 ° C		8

1.Reflow soldering should not be done more than two times. In the case of more than 24 hours passed soldering after first, LEDs will be damaged. 24 LED

2.When soldering , do not put stress on the LEDs during heating

■ Soldering Iron

1.When hand soldering, keep the temperature of iron below less 300 less than 3 seconds
300 3

2.The hand solder should be done only one time.

■ Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed in advance whether the characteristics of LEDs will or will not be damaged by repairing. LED

LED

■ Cautions

1.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 use the picking up nozzle, the pressure on the silicone resin should be proper. LED LED

2. Do not apply mechanical force or excess vibration during the cooling process to normal temperature after soldering. Do not rapidly cool device after soldering.

Co

requiring special care during processing. In cases where a minimal level of dirt and dust particles cannot be guaranteed, a suitable cleaning solution must be applied to the surface after the soldering of components. Refond suggests using isopropyl alcohol for cleaning. In case other solvents are used, it must be assured that these solvents do not dissolve the package or resin. Ultrasonic cleaning is not recommended. Ultrasonic cleaning may cause damage to the LED.

LED

7>.Storage

If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed after unpacking and based on the following condition: (60 ± 5) for above 24 hours

: 60 ± 5 24

If the package is flatulence or damaged, please notify the sales staff to assist

8> .Similar to most Solid state devices; LEDs are sensitive to Electro-Static Discharge (ESD) and Electrical Over Stress (EOS). LED

9>.There should be

.When you have special quality requirement for the product, please kindly contact to our sales.

11>.Wh

12>.The customer shall not disassemble or analyze the LEDs without having consent from Refond. When defective LEDs are found, the customer shall inform Refond in writing directly before disassembling or analysis.

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