

SPECIFICATION

REFOND P/N

RF-A1A3F-Y895-Y1

REFOND

Mass Production



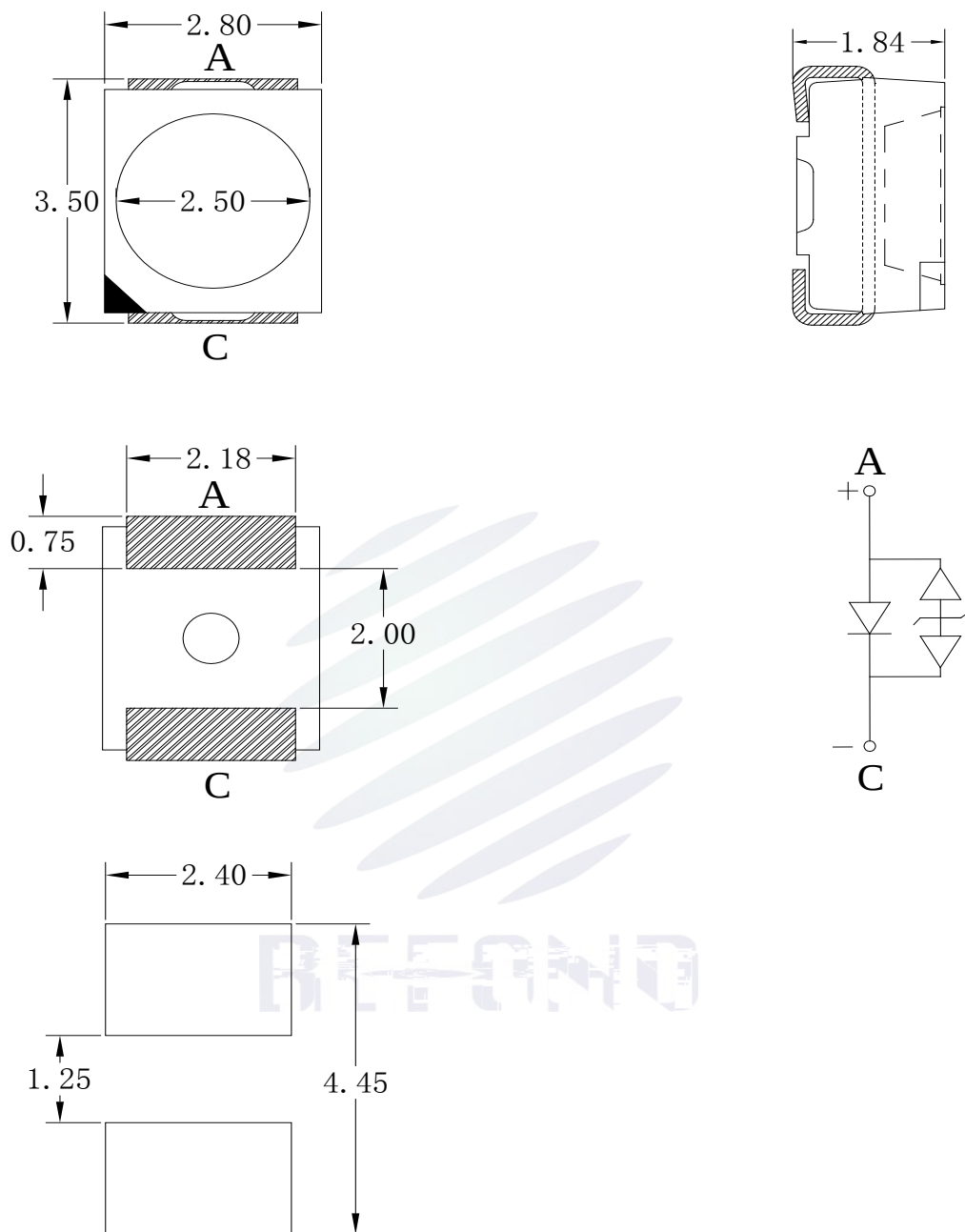
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1.4 Package Dimension



Notes

All dimensions units are millimeters.

All dimensions tolerances are $\pm 0.2\text{mm}$ unless otherwise noted.



1.5 Product Parameters

Table 1-1 Electrical / Optical Characteristics at Ts=25°C

Item	Symbol	Test Condition	Value			Unit
			Min.	Typ.	Max.	
Forward Voltage	V_F	$I_F=20\text{mA}$	1.8	2.0	2.4	V
Reverse Current	I_R	$V_R=5\text{V}$	---	---	10	uA

Luminous Intensity
 mcd

Table 1-2 Absolute Maximum Ratings at Ts=25°C

1.7 Typical Optical Characteristics Curves

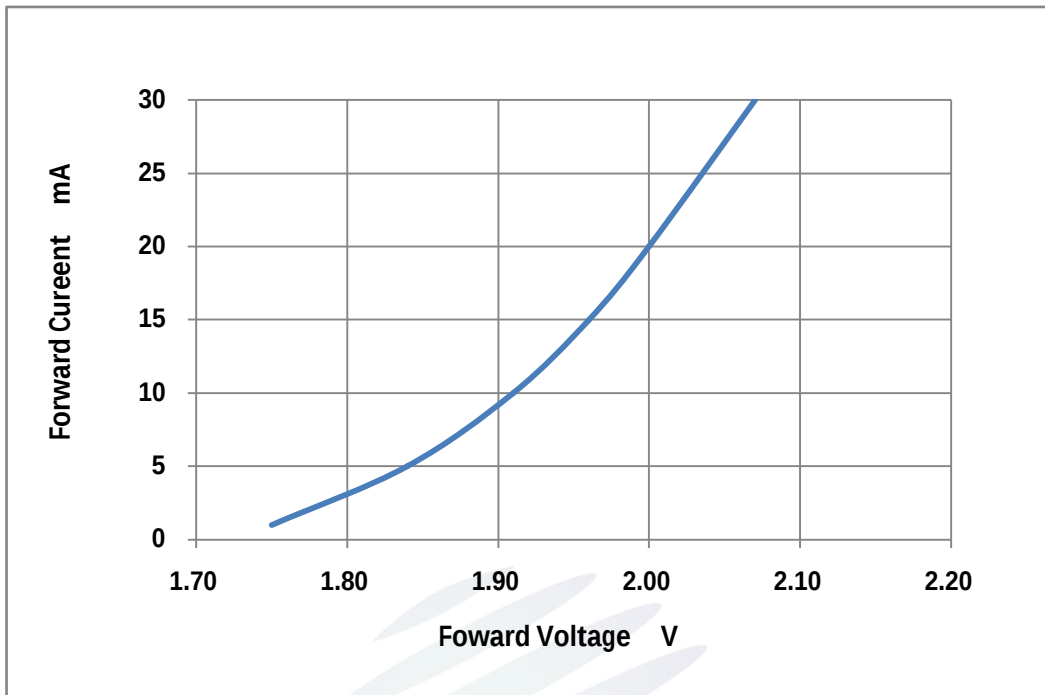


Fig. 1-7 Forward Voltage Vs Forward Current

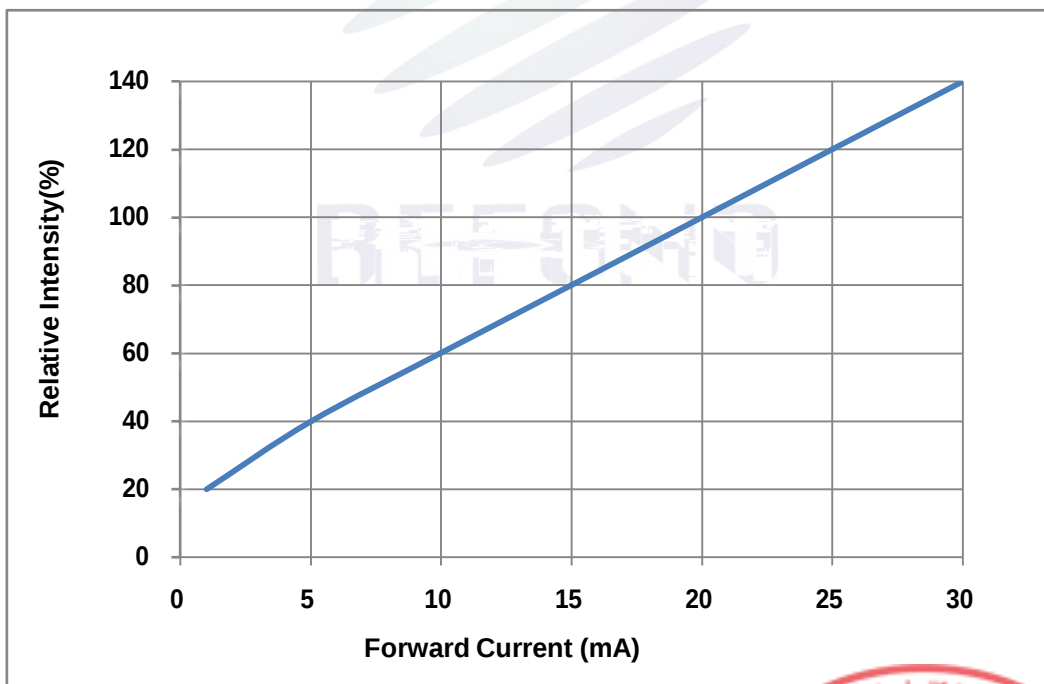


Fig. 1-8 Forward Current Vs Relative Intensity



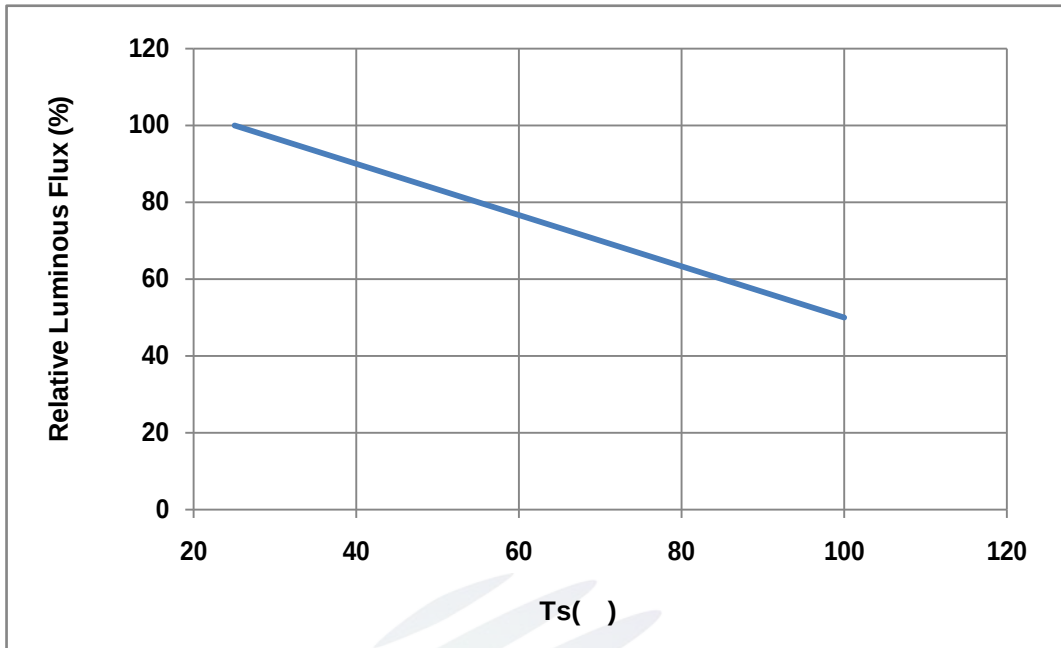


Fig. 1-9 Solder Temperature Vs Relative Intensity

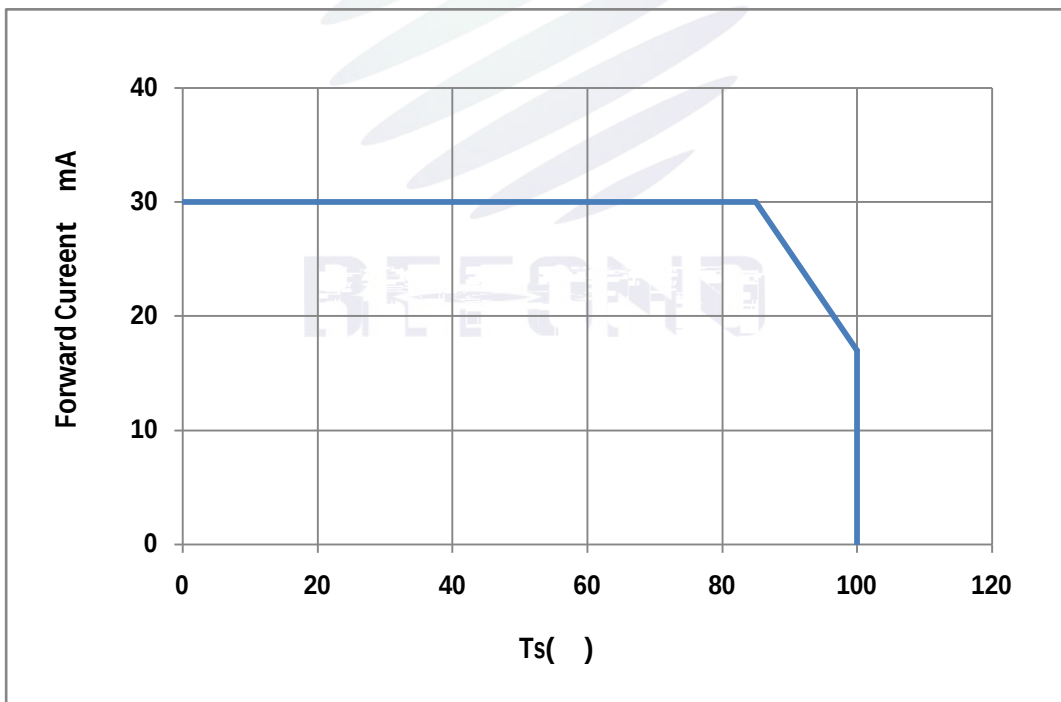


Fig. 1-10 Solder Temperature Vs Forward Current



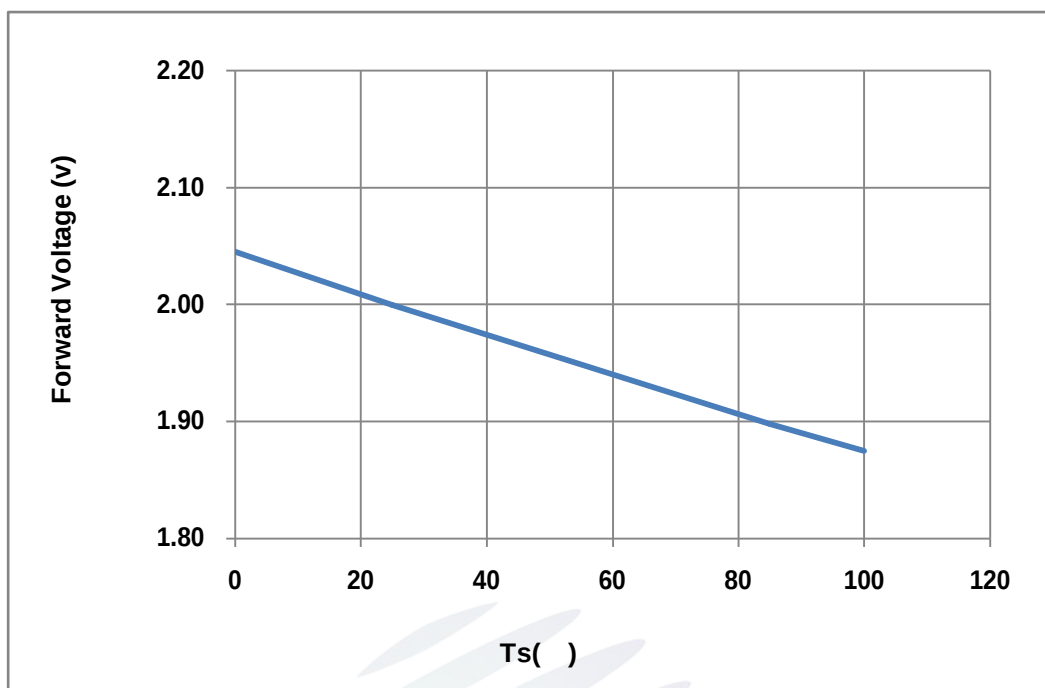


Fig. 1-11 Forward Voltage Vs Solder Temperature

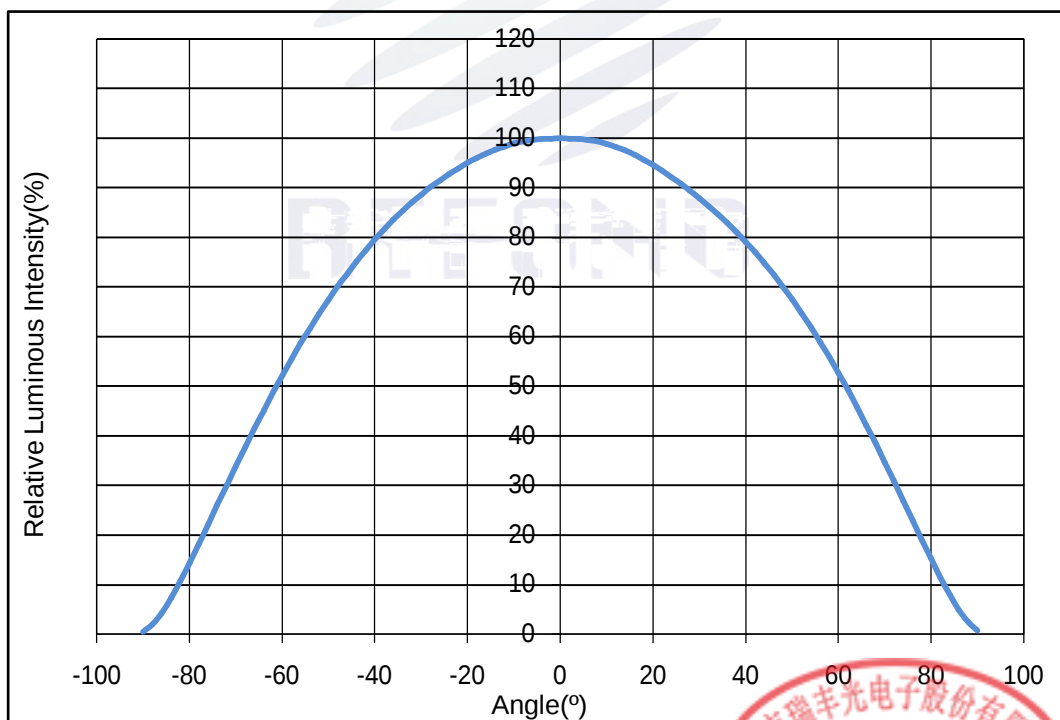
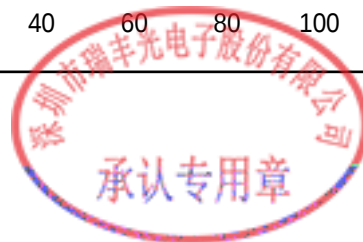


Fig. 1-12 Radiation diagram



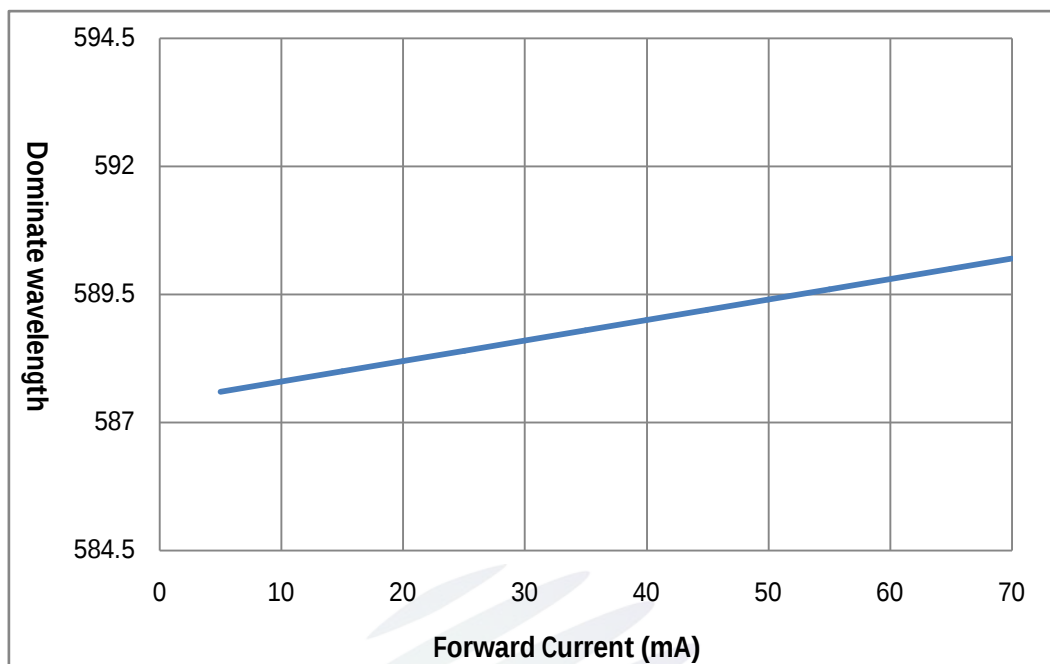


Fig. 1-13 Forward current vs Dominate wavelength

(Ts=25°C)

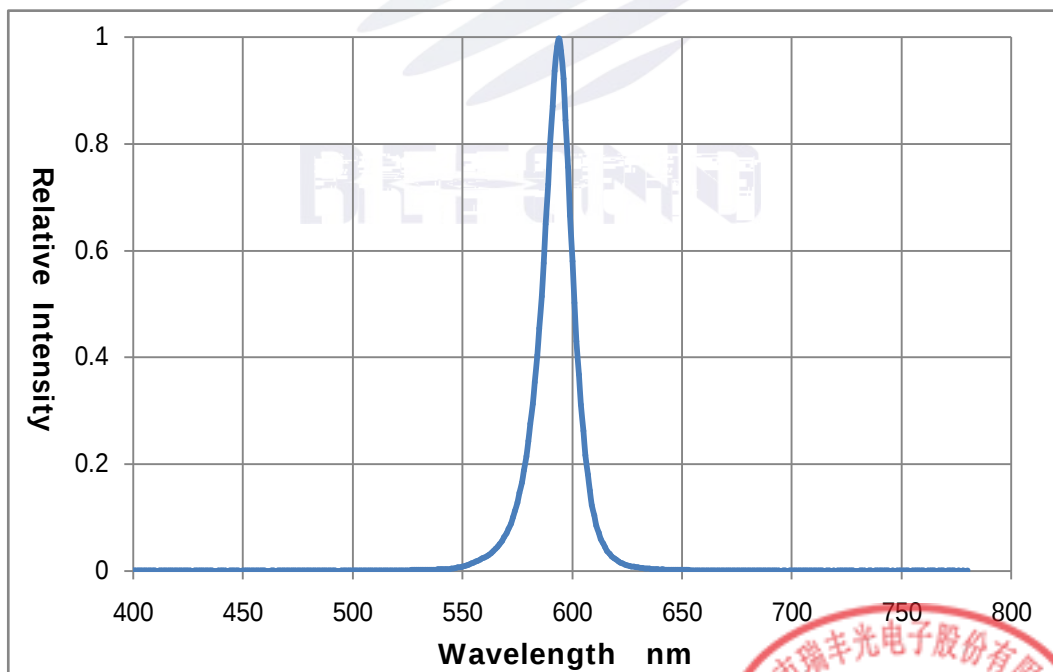
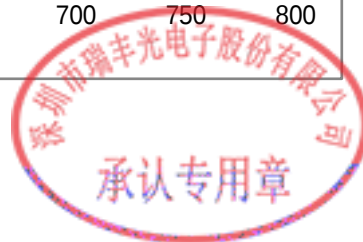


Fig. 1-14 Spectrum Distribution



2.1.3 Label Form Specification

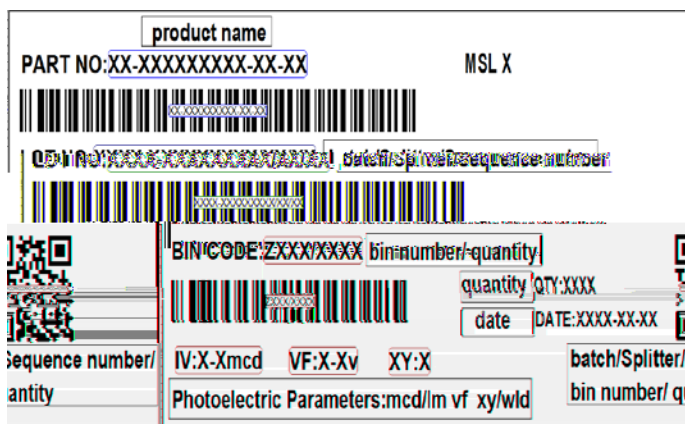


Fig. 2-3 Label Form Specification

Specification

PART NO.	Part Number
SPEC NO.	Spec Number
LOT NO.	Lot Number
BIN CODE	Bin Code
XY	Luminous flux
V _F	Chromaticity Bin
WLD	Forward Voltage
QTY	Wavelength
DATE	Packing Quantity
	Made Date

2.2 Moisture Resistant Packing

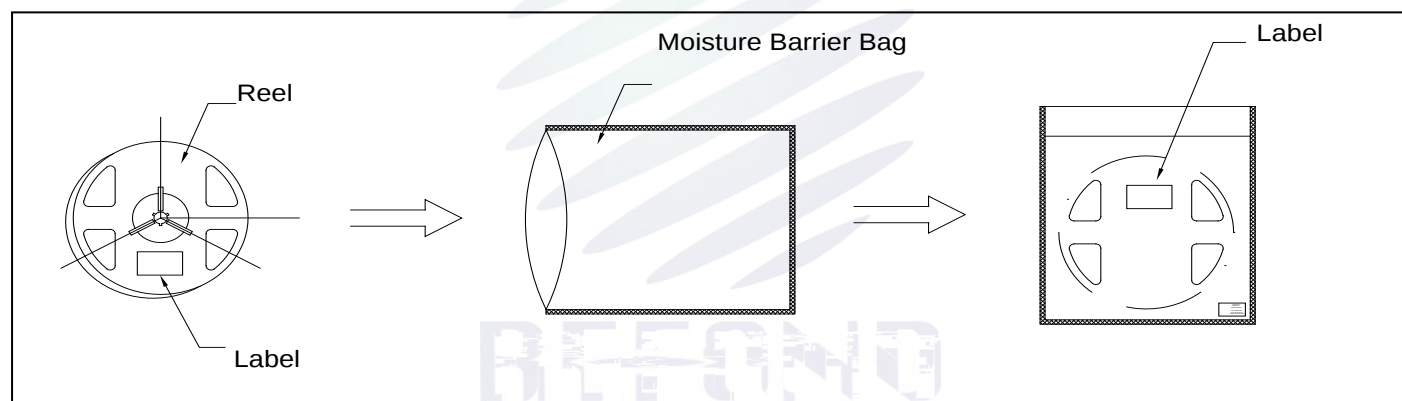


Fig.2-4 Moisture Resistant Packing 防潮包装

2.3 Cardboard Box

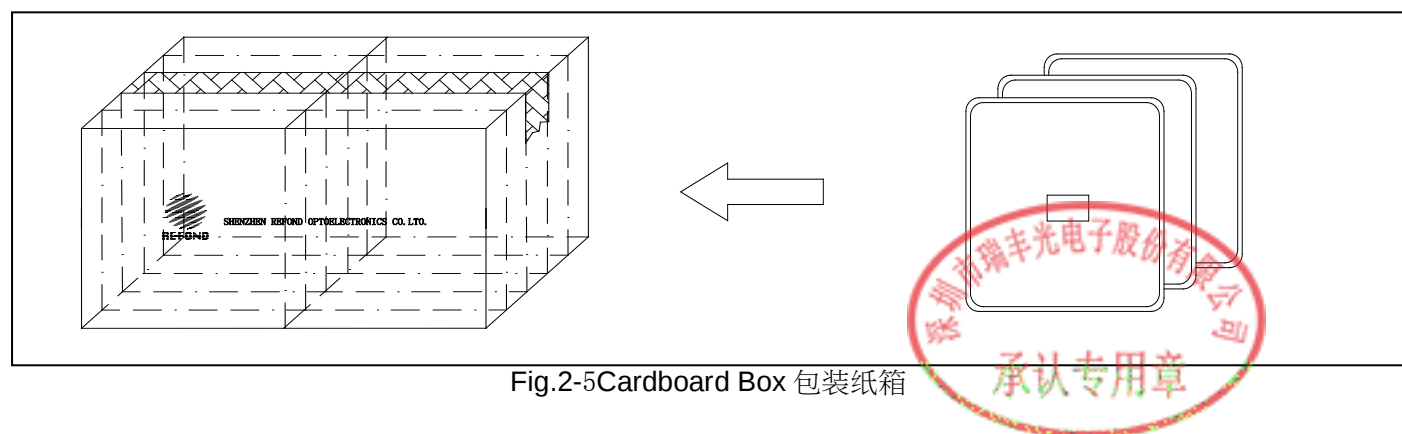


Fig.2-5 Cardboard Box 包装纸箱

2.4 Reliability Test Items And Conditions

Table 2-3 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	20pcs.	0/1
MSL2 2	JESD22-A113	85 / 60%RH	168 hrs.	20pcs.	0/1
Thermal Shock	JEITAED-4701 300307	-40 15min 10s 125 15min	1000 cycle	20pcs.	0/1
Life Test	JESD22-A108	Ta=100 If=20mA	1000hrs.	20pcs.	0/1
High Temperature High Humidity Life Test	JESD22-A101	85 / 85%RH If=20mA	1000hrs.	20pcs.	0/1



2.5 Criteria For Judging Damage

Table 2-4Criteria For Judging Damage

Test Items	Symbol	Test Condition	Criteria For Judgement	
			Min.	Max.
Forward Voltage	V_F	$I_F=20mA$	-	U.S.L*)x1.1
Reverse Current	I_R	$V_R = 5V$	-	U.S.L*)x2.0
Luminous Flux		$I_F=20mA$	L.S.L*)x0.7	-

Notes

- 1.U.S.L: Upper standard level L.S.L: Lower standard level
- 2.The above reliability tests is based on the verification of a single/strip LED of Refond's existing experimental platform,the reliability experiment was taken under good heat dissipation conditions. when customers applies the LED to the series and parallel circuit, should take consideration of all the factors such as the current, voltage distribution, heat dissipation and others.
- 3.The technical information shown in the data sheets is 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.



3. SMT Reflow Soldering Instructions SMT

3.1SMT Reflow Soldering Instructions SMT

Fig.3-1SMT Reflow Soldering Instructions SMT 回流焊说明

Table 3-1Reflow parameters 回流焊参数

Average temperature rise speed	T _{smax} T _p	3 °C/ Max 3 °C/ s
Preheating: minimum temperature	(T _{smin})	150 °C
Preheating: Max temperature	(T _{smax})	200 °C
Preheating: Time	T _{smin} T _{smax}	60 - 120 60s-120s



Notes

(1)Reflow soldering should not be done more than twice. If more than 24 hours between the two solderings ,LED will be damaged.

(2)Whensoldering , do not put stress on the LEDs during heating.

3.1.1 Soldering Iron

3.1.2 Repairing

3.1.3 Cautions



4. Handling Precautions

4.1 Handling Precautions



Fig 4-1 Handling Precautions



Table 4-1Storage

Conditions		Temperature	Humidity	Time
Storage	Before Opening Aluminum Bag	30	75%	Within 1 Year From Date
	After Opening Aluminum Bag	30	60%	Recommended for use within 24 hours 24
Baking		60 5	-	24hours 24


REFOND


[illegible]



Declare

This specification is written both in English and in Chinese and the latter is formal.