

承 认 书

SPECIFICATION FOR APPROVAL

客 户:

Customer: _____

客户料号:

Customer Part No.: _____

格天料号:

GT- Part No.: **GT-M50503W522-0** _____

规 格:

Specification: **VF=3.0-3.4V, TC=5000K-5500K ,IV=22-24LM** _____

文件编号:

Documents No.: _____

送承认日期:

SAMPLE DATE: _____

客户承认签核栏

CUSTOMER AUTHORIZED SIGNATURE

核 准 Checked	审 核 Veri fy	承认人 approve by

Pleas retun to us oen copy of “SPECIFICATION FOR APPROVAL” With you approved Signatu 客户签字确认，盖章后请回传一份承认书我司

格天送承认确认栏

GT-CONFIRM THE SIGNATURE

核 准 Checked	审 核 Veri fy	制作人 MAKER

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GT-M50503W522-0

Description (描述)

5.00mmx5.00mmx1.60mmSMT-LED (表面贴片器件尺寸为5.00mmX5.00mmX1.60mm)

(表面贴片器件尺寸为5.00mmx5.00mmx1.60mm)

The materials of the LED dice is INGaN

(发光二极管所用芯片材料为氮化镓)

Features(特征)

Extremely wide viewing angle(宽的发光角度)

Suitable for all SMT assembly and solder process. (适用于的所有的SMT装配和焊接工艺)

Available on tape and reel (可用在载带及卷轴上)

Moisture sensitivity level: Level 4(防潮等级Level 4)

Applications(用途)

●XUTc (gh) Tj /F7 10e10.08 Tf40.08 x2/F7 1m61ghgh

122410 804r-08240T081T543ms30j 02403n5304.043028578M.0.342857 w1)

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Selection Guide(选择指南)

Part No. 型号	Di ce	Lens Type 胶体类型	Luminous intensity(mcd) 光强 @ 60mA		Luminous flux(lm)光 通量 @ 60mA		Vi ewi ng Angle 角 度
			Min.	Max.	Min	MAX	2 θ 1/2
GT-M50503W522-0	WHITE (InGaN)	Yellow Di ffused	7040	7680	22	24	120°

Note::

- θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
θ 1/2 4 5 6 7 8 9: ; < = > 8 ? 6 @ < 4 1/2 6 7 8 9: A
- the above luminous intensity measurement allowance tolerance $\pm 10\%$. B C ? 6 @ < & D E F G 2 3 * $\pm 10\%$
The above luminous flux intensity measument allowance tolerance $\pm 0.5\text{Lm}$. 上述光通量的测试误差为 $\pm 0.5\text{LM}$.

Electrical / Optical Characteristics at Ta=25°C 电性与光学特性

Parameter (参数)	Symbol (符号)	Min. (最小)	Typ. (平均)	Max. (最大)	Units (单位)	Test Conditions 测试条件
Forward Voltage (正向电压)	VF	3.0	3.2	3.4	V	IF=60mA
Reverse Current (反向电流)	IR	--	--	10	μA	VR = 5V
Color Coordinates (色坐标)	X	--	0.33	--	--	IF=60mA
	Y	--	0.34	--	--	IF=60mA
Color Temperature (色温)	TC	5000	5250	5500	K	IF=60mA
Color Rendering Index (显色性指数)	RA	--	72	--	CRI	IF=60mA

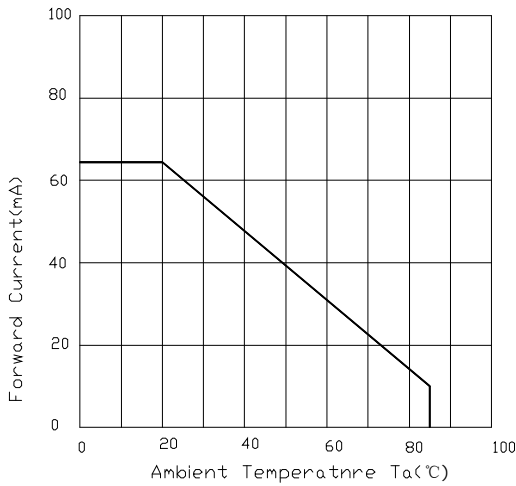
Absolute Maximum Ratings at Ta=25°C 绝对最大额定值

Parameter (参数)	Symbol (符号)	Rating (值)	Units (单位)
Power Dissipation (功耗)	Pd	180	mW
DC Forward Current (直流正向电流)	IF	60	mA
Peak Forward Current [1] (峰值正向电流)	IFP	100	mA
Reverse Voltage (反向电压)	VR	5	V
Electrostatic Discharge (HBM)(静电)	ESD	2000	V
Operating Temperature (操作温度)	Topr	-40 ~ +85 °C	°C
Storage Temperature (保存温度)	Tstg	-40 ~ +100 °C	°C

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Typical optical characteristics curves 典型的光学特性曲线

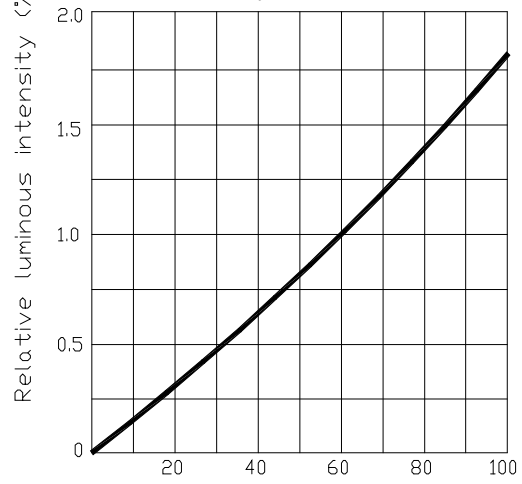
Ambient Temperature VS. Forward Current

HI J < KL MNOP :



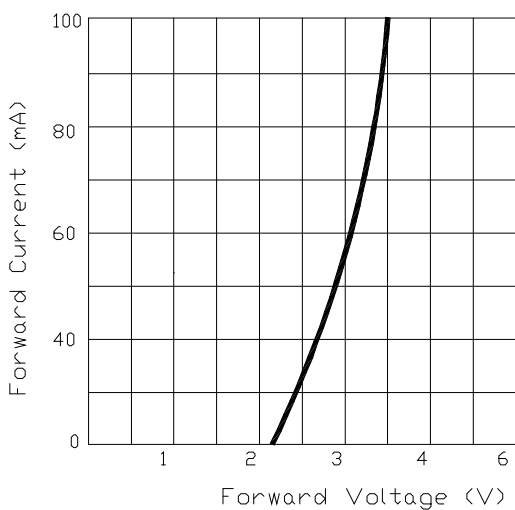
Forward Current VS. Relative Intensity

L MNOK QR 6 @P :



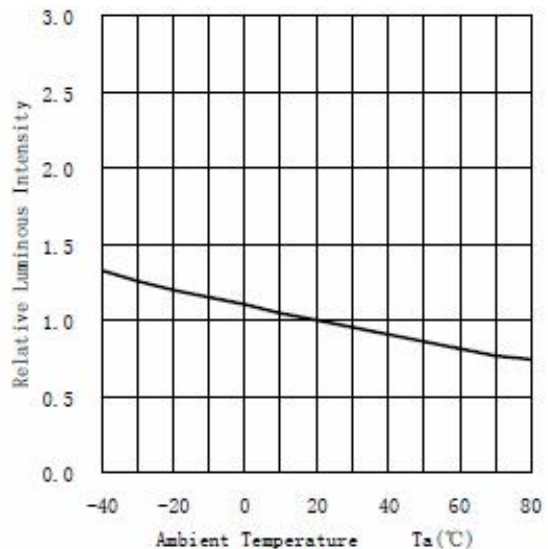
Forward Voltage VS. Forward Current

L MNS KL MNOP :



Ambient Temperature VS. Relative Intensity

HI J < KQR 6 @P :



Relative spectral emission

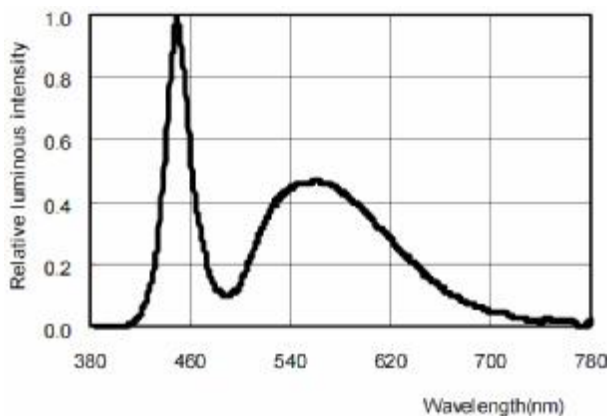
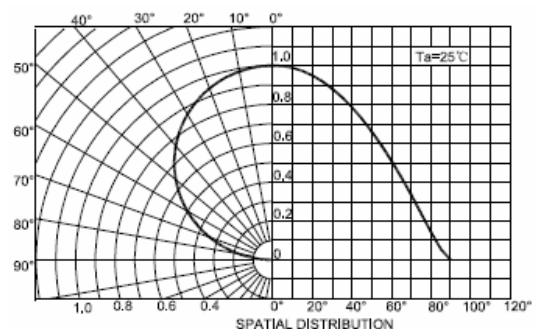


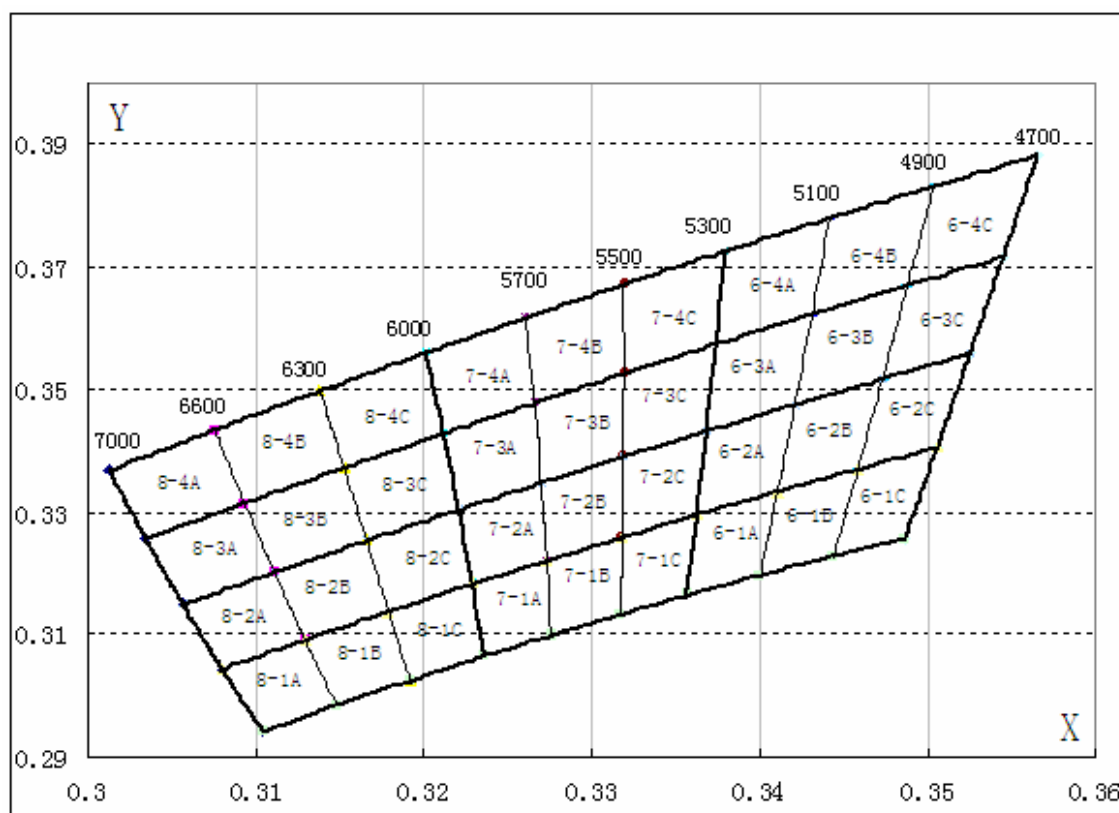
Diagram characteristics of radiation

辐射图特征 (发光角度图)



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CIE Chromaticity Diagram

CIE区块坐标图



Code	X1	Y1	X2	Y2	X3	Y3	X4	Y4	CCT
6-4C	0.3504	0.3831	0.3488	0.3669	0.3545	0.3716	0.3566	0.3883	4700- 4900
6-3C	0.3488	0.3669	0.3473	0.3516	0.3526	0.3558	0.3545	0.3716	
6-2C	0.3473	0.3516	0.3459	0.3368	0.3506	0.3405	0.3526	0.3558	
6-1C	0.3459	0.3368	0.3444	0.3226	0.3487	0.3257	0.3506	0.3405	
6-4B	0.3442	0.3778	0.3431	0.3621	0.3488	0.3669	0.3504	0.3831	4900- 5100
6-3B	0.3431	0.3621	0.3421	0.3474	0.3473	0.3516	0.3488	0.3669	
6-2B	0.3421	0.3474	0.3411	0.3332	0.3459	0.3368	0.3473	0.3516	
6-1B	0.3411	0.3332	0.3400	0.3195	0.3444	0.3226	0.3459	0.3368	
6-4A	0.3380	0.3725	0.3374	0.3574	0.3431	0.3621	0.3442	0.3778	5100- 5300
6-3A	0.3374	0.3574	0.3369	0.3432	0.3421	0.3474	0.3431	0.3621	
6-2A	0.3369	0.3432	0.3363	0.3295	0.3411	0.3332	0.3421	0.3474	
6-1A	0.3363	0.3295	0.3357	0.3164	0.3400	0.3195	0.3411	0.3332	

GT-M50503W522-0**Reliability Test Items And Conditions** 信赖性测试项目及条件

The reliability of products shall be satisfied with items listed below.

Confidence level :90%

LTPD :10%

产品的可靠性应满足于下列项目

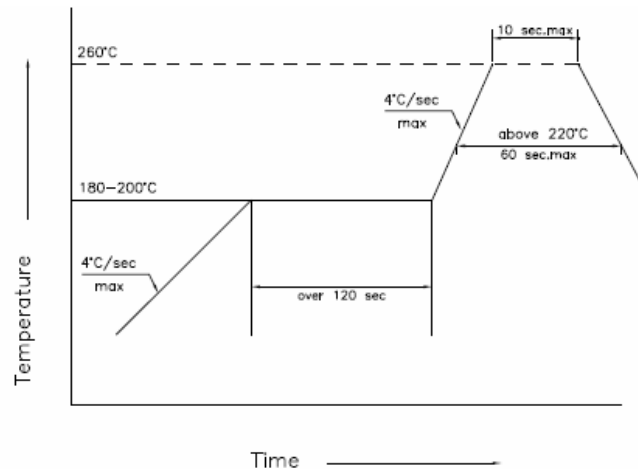
信任级别: 95 % LTPD: 5 %

No.	Items 项目	Ref.Standard 判定标准	Test Condition 测试条件	Test Hours/ Cycles	Sample Size 样品数量	Ac/Re OK/NG
1	Reflow 回流焊	JESD22-B106	Temp:260℃max,T=10 sec	3 times.	50Pcs	0/1
2	Temperature Cycle 温度循环	JESD22-A104	100℃±5℃ 30 min.↑↓5 min,-40℃±5℃ 30 min.	100 Cycles	50Pcs	0/1
3	Thermal Shock 冷热冲击	JESD22-A106	100℃±5℃ 5 min.↑↓-40℃±5℃ 5 min.	100 Cycles	50Pcs	0/1
4	High Temperature Storage 高温保存	JESD22-A103	Temp:100℃±5℃	1000Hrs.	50Pcs	0/1
5	Low Temperature Storage 低温保存	JESD22-A119	Temp:-40℃±5℃	1000Hrs.	50Pcs	0/1
6	DC Operating Life 常温通电	JESD22-A108	Ta=25℃±5℃ IF=60mA	1000Hrs.	50Pcs	0/1
7	High Temperature High Humidity 高温高湿通电	JESD22-A101	85℃±5℃/ 85%RH IF=60mA	1000Hrs.	50Pcs.	0/1

*

The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of thereferenced products. It does not constitute the warranting of industrial property nor the granting of any license.

数据的工作表中所示的技术信息仅限于典型特征和电路实例的引用的产品。它并不构成值得工业产权也不给予任何许可T

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SMT Reflow Soldering Instructions SMT 回流焊说明


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 烙铁

1. When hand soldering, the temperature of the iron must less than 300°C for 3 seconds

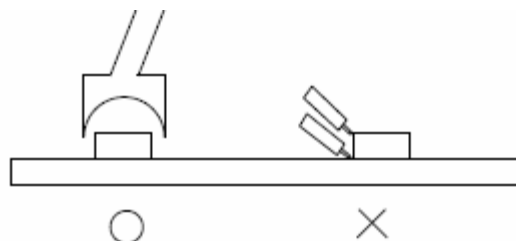
2. The hand solder should be done only one times

Repairing 修补

Repairing 修补

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 beforehand Whether the characteristics of LEDs will or will not be damaged by repairing.

LED回流焊后不应该修补, 当修复是不可避免的时, 必须使用双头烙铁 (如下图), 但必须事先确认此种方式会或不会损坏LED本身的特性。


Cautions 注意事项

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封装为硅胶, 故LED胶体表面较软, 用力按压胶体表面会影响LED可靠性, 因此应有预防措施避免在封装的零件上的强大压力, 当使用吸嘴时, 胶体表面的压力应是恰当的。

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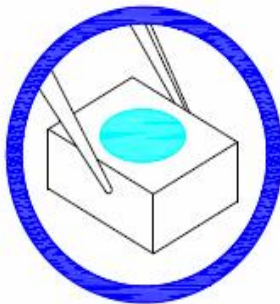
Handling Precautions 处理防备措施

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force. As a result, special handling precautions need to be observed during assemble using silicone encapsulated LED products, Failure to comply might leads to damage and premature failure of the LED.

QRHz { | } ~ } • 而言= 硅g 封装} 柔软且! 弹性,因它&/ 性大大减少. d 应f ,易c 机械外f 损坏= 因此` k l 处理方j q _ R 硅g 封装a b Z 预防措施= 若未按_ 求操作,X 能会导致LED 损坏和6 衰

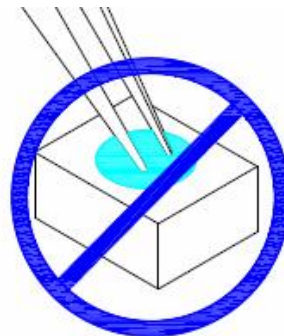
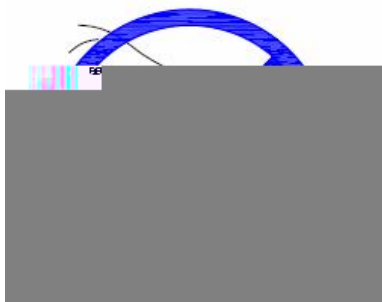
1.Handle the component along the side surface by using forceps or appropriate tools

通v 使e 适] &l 具5 a b 侧j 夹取



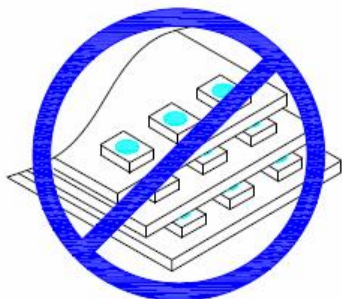
2.Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry

WX直me k 或尖锐金属S g h i j ,它X 能会损坏内部N 路



3. Do not stack together assembled PCBs containing LEDs. Impact may scratch the silicone lens or damage The internal circuitry

WX将模组a b 堆积` y 起,它X 能会损坏内部N 路



4.Not available in the situation of acidity for PH

WXe ` PH<7&酸性场



GT-M50503W522-0

Label 标签

Lm: Luminous intensity rank 亮度等级

VF: Forward voltage rank 电压等级

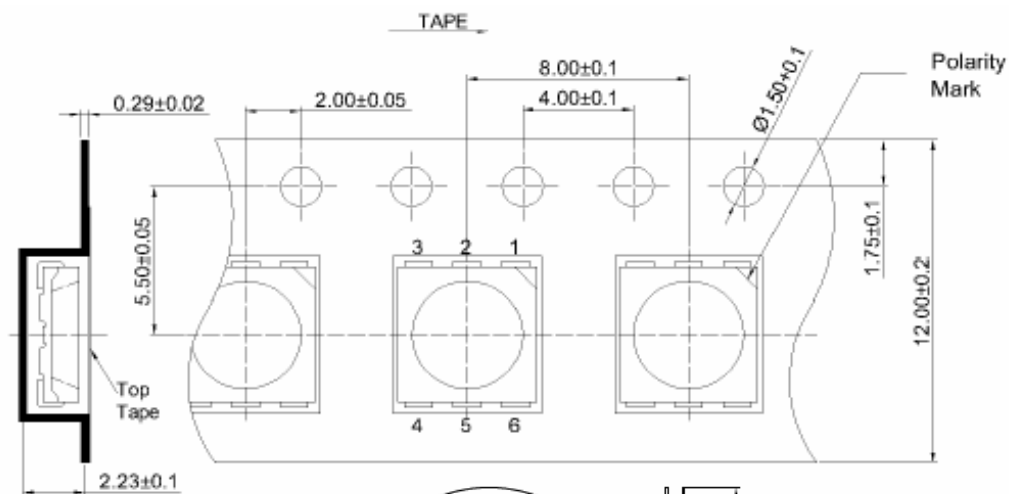
TC: Color temperature 色温

Customer TYPE:

GT-TYPE	ROHS	
LOT NO		
WL/TC	LM	
VF (V)	BIN	
QC	QTY(PCS)	

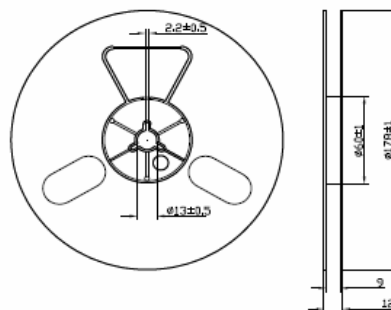
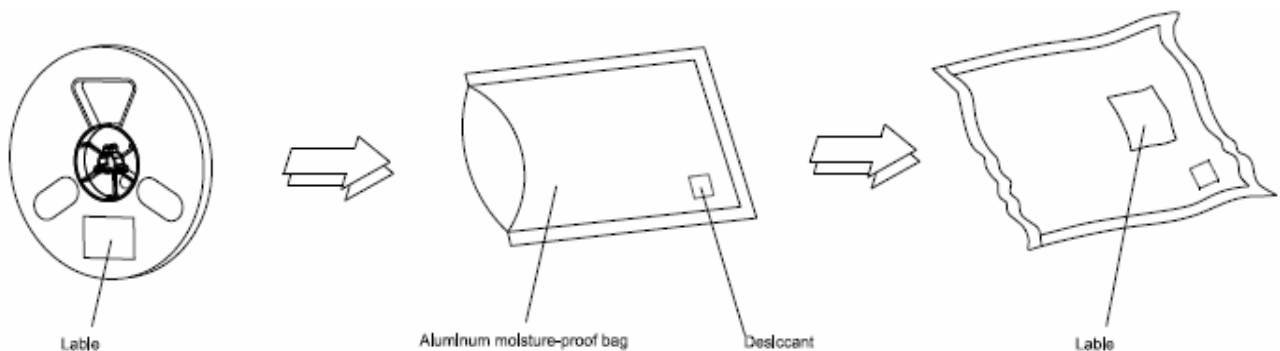


XXXXXXXXXXXXXXXXX

Tape Specifications (Units : mm) 载带规格 (单位: mm)


Reel Dimensions

卷轴尺寸


Moisture Resistant Packaging 防潮带包装

Note: The tolerances unless mentioned is ± 0.1 mm, Unit: mm 注: 标注公差为 ± 0.1 mm, 单位: mm