

ST-High Power Red

STXX-K620RGXX



Product Brief

Features And Benefits

● RED Color

● Dimensions 14.5*8.0*5.2mm

● Beam Angle: 140°

● Lead Free Products

● Standard Normal PC lens

Application

● Flood Light&Street Light Outdoor Lighting

● Traffic Signals&Stage Light

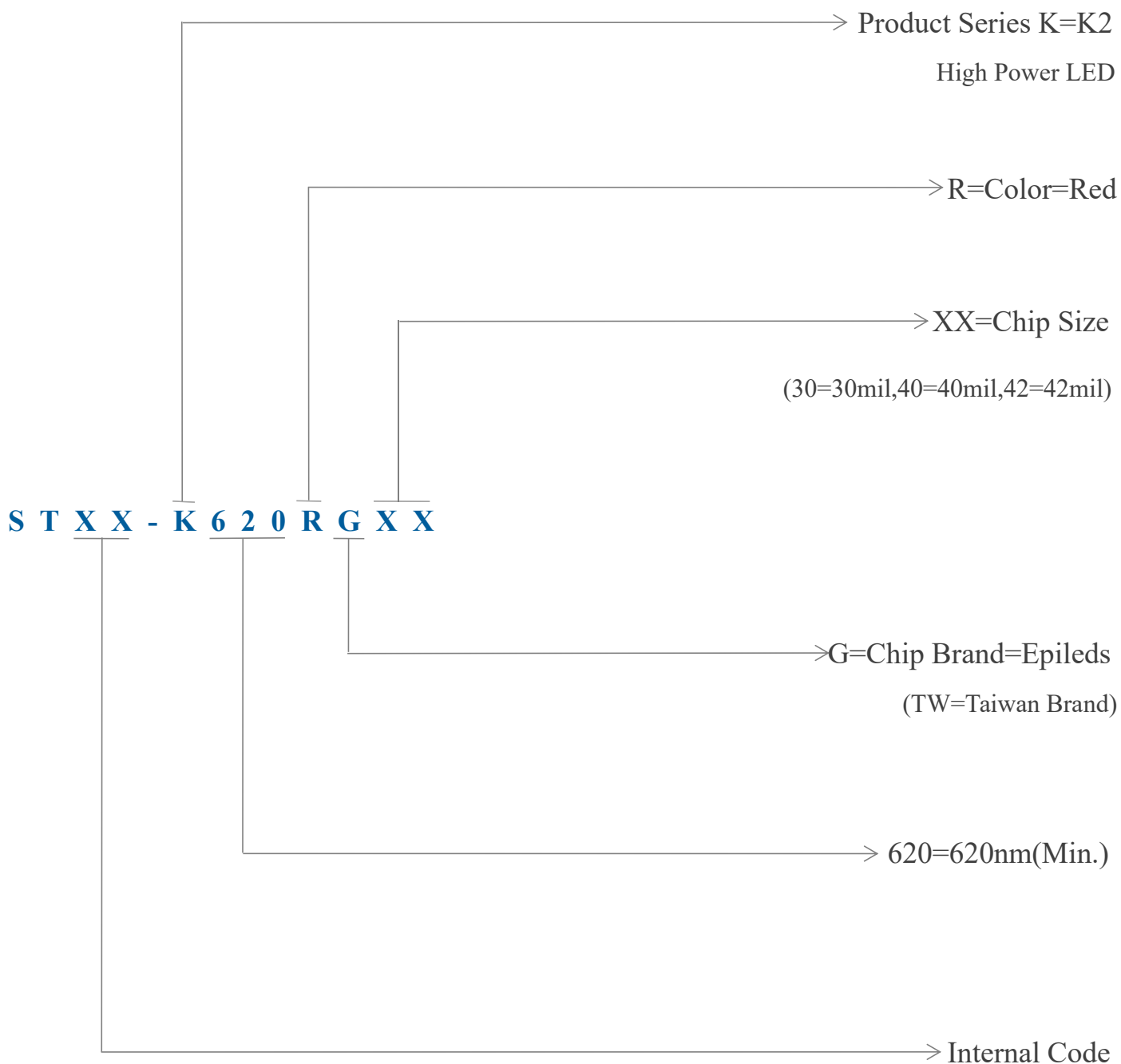
● Decorative&Pathway Lighting

● Wall Washer&Under Ground Lighting

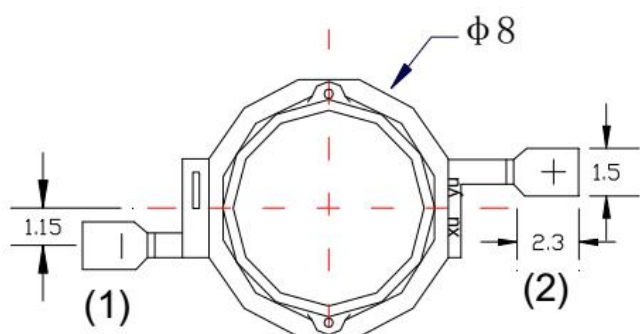
● Ceiling Light&Par Light Indoor Lighting

1.Part Number Nomenclature

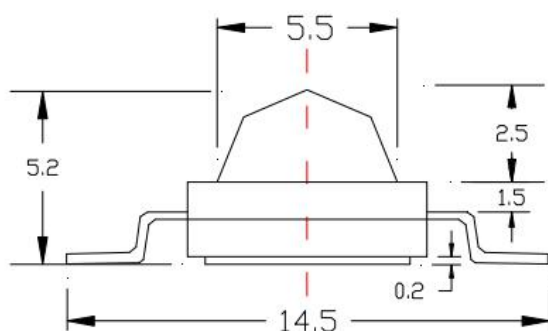
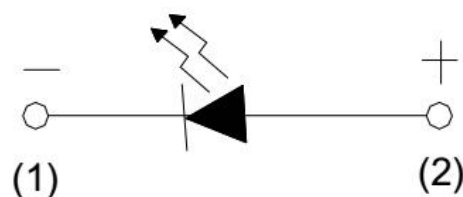
Part Numbers For ST-High Power Red Follow The Convention Below:



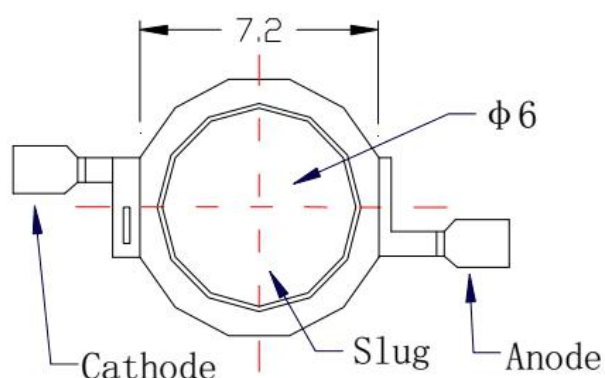
2.Outline Dimensions



Top View



Side View



Bottom View

Notes:

1. Drawings are not to scale.
2. All dimensions are in millimeters.
3. Tolerance: $\pm 0.30\text{mm}$.

3. Absolute Maximum Ratings

Absolute Maximum Ratings For ST-High Power Red.

PARAMETER	SYMBOL	MAXIMUM PERFORMANCE
Power Dissipation	P _D	1W
Forward Current	I _F	350mA
Peak Forward Current	I _{FP}	700mA
Junction Temperature	T _j	120°C
Operating Temperature Range	T _{opr}	-30 ~ +80°C
Storage Temperature Range	T _{stg}	-40 ~ +80°C
Thermal Resistance Junction	R _{J-B}	8°C/W
ESD Sensitivity(HBM)	ESD	2000V
Hand Solder Temperature		350±20°C/3~5sec

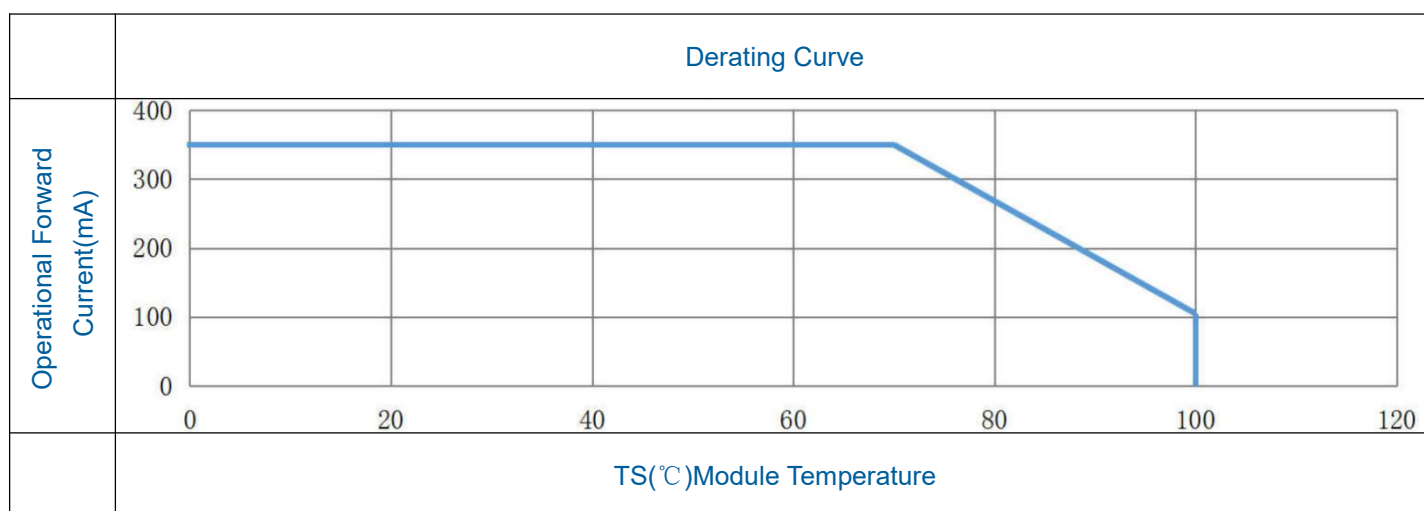
Note: *Pulse width≤0.1msec Duty ratio≤1/10

4.Electrical -Optical Characteristics (T_A=25℃)

PARAMETER	CHIP	CONDITION	WL.	MIN.	TYP.	MAX.	LM/W	UNIT
Forward Voltage	/	T _a =25℃	/	2.0	2.25	2.4	/	V
Luminous Flux	Epileds 42mil	IF=350mA	620-630nm	50	55	60	>50	LM/W
		IF=350mA	650-660nm	50	55	60	>50	
	Epileds 40mil	IF=350mA	620-630nm	45	50	55	>45	
		IF=350mA	650-660nm	45	50	55	>45	
	Epileds 38mil	IF=350mA	620-630nm	40	45	50	>40	
		IF=350mA	650-660nm	40	45	50	>40	
	Epileds 30mil	IF=350mA	620-630nm	30	35	40	>30	
		IF=350mA	650-660nm	30	35	40	>30	

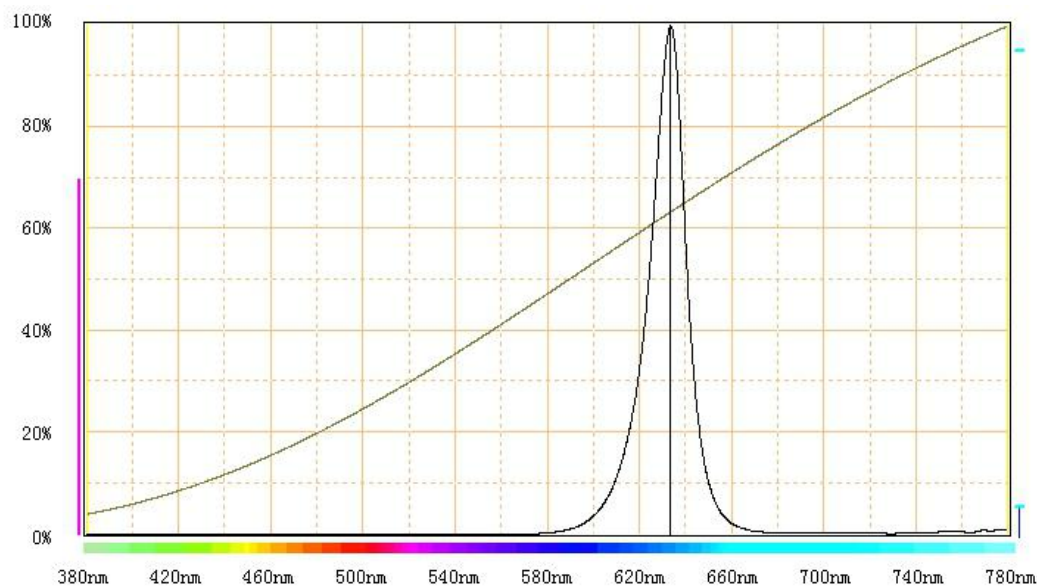
Note:Data above for reference only.

5.Electrical Derating Curve

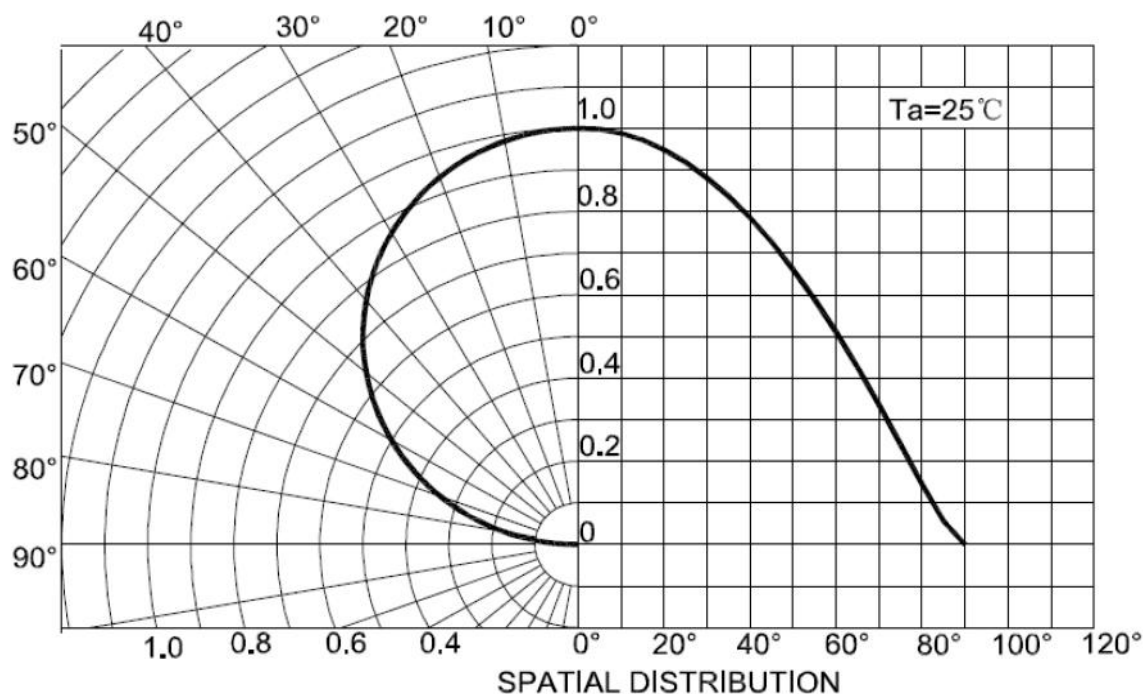


Note: In order to keep the temperature below the rated,
please make sure the radiator has enough heat dissipation performance.

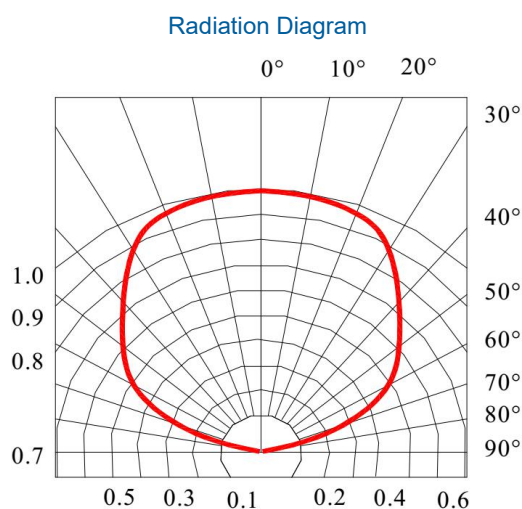
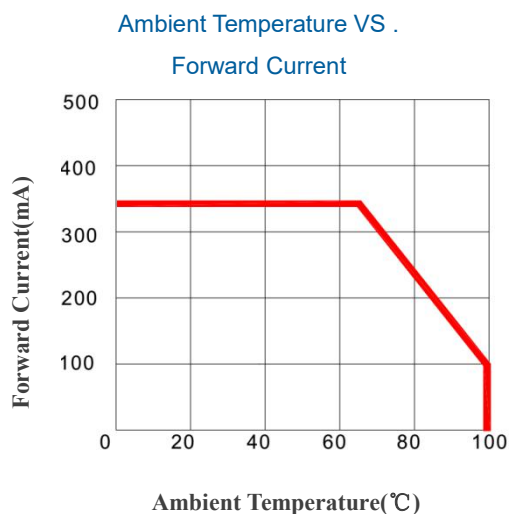
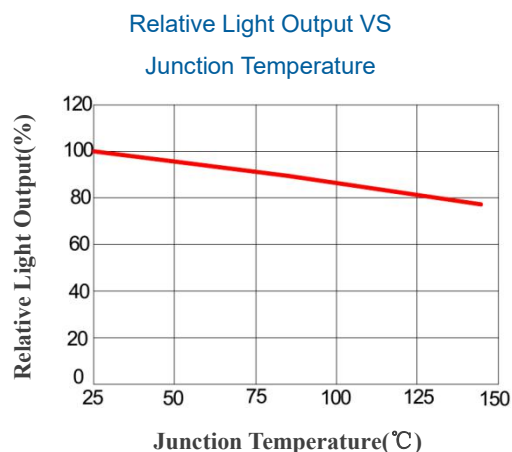
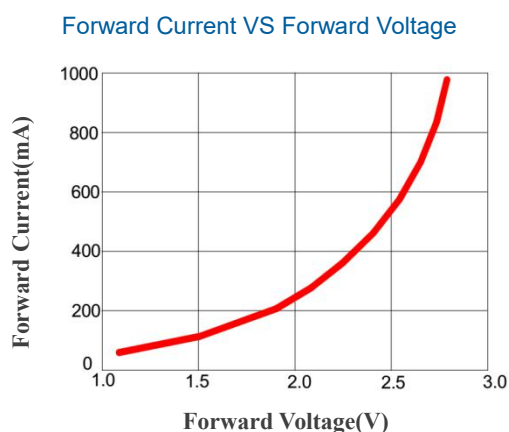
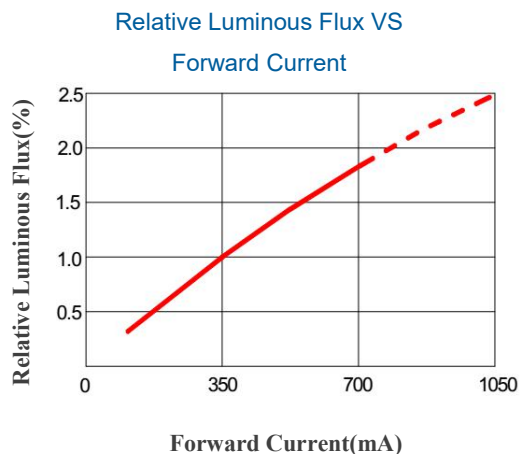
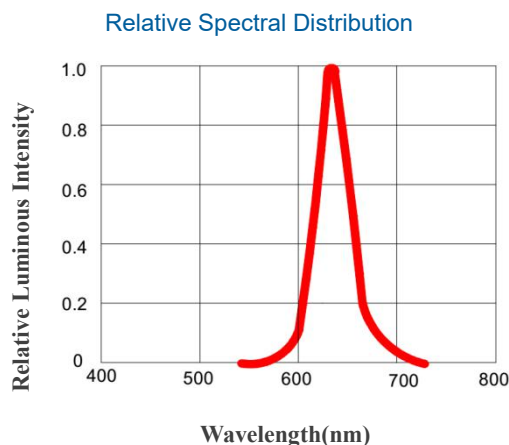
6.Relative Spectral Distribution Graph



7.Luminous Flux Distribution



8. Typical Electrical/Optical Characteristic Curves (If=350mA, TA=25°C)



9. Reliability

Test Item And Results

ITEM	STANDRAD TEST METHOD	TEST CONDITION	NOTE	NUMBER OF DAMAGED
Resistance To Soldering Heat	JEITA ED-4701 300 302	T _{SLD} :160±5°C 10sec	1 time	0/30
Solder Ability	JEITA ED-4701 300 303	T _{SLD} :150±5°C 5sec	1 time	0/30
Thermal Shock	JEITA ED-4701 300 307	-40~100°C 10min,10min	100 cycles	0/30
Temperature Cycle	JEITA ED-4701 100 105	-40~25~100~25°C 30min.5min.30min.5min	160 cycles	0/30
Terminal Strength (Pull test)	JEITA ED-4701 400 401	Load 10N(1kgf)10±1sec	None Damage	0/30
Terminal Strength (Bending test)	JEITA ED-4701 400 401	Load 5N(0.5kgf) 0°~90°~0°bend 2 times	None Damage	0/30
Temperature Humidity Storage	JEITA ED-4701 100 103	Ta=60°C,RH=90%	1000 hrs	0/30
Steady State Operating Life	--	Ta=25°C,IF=350mA	1000 hrs	0/30
Steady State Operating Life Of High Humidity Heat	--	Ta=60°C, RH=90%,IF=350mA	1000 hrs	0/30
High Temperature Storage	JEITA ED-4701 200 201	Ta=100°C	1000 hrs	0/30
Low Temperature Storage	JEITA ED-4701 200 202	Ta=-40°C	1000 hrs	0/30

Criteria For Judging The Damage

ITEM	SYMBOL	TEST CONDITION	ITEM	
			MIN.	MAX.
Forward Voltage	V _F	I _F =350mA	--	Initial data×1.1
Luminous Intensity	I _V	I _F =350mA	Initial data×0.9	--
Reverse Current	I _R	V _R =5V	--	≦ 5μA

10.Packing Standard

Label

Model-Model Number

Power-Wattage

Chip-Chip Brand&Chip Size

IF-Forward Current

VF-Range Of Forward Voltage

IV Φ_v -Range Of Luminance/Lumen

WL.-Wavelength

QTY--(Quantity)

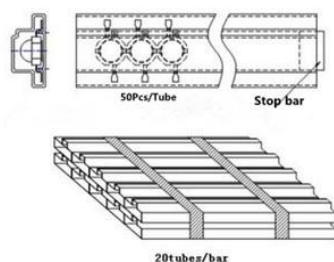
SANTANG LIGHTING			
Model			
Power		Chip	
IF		VF	
IV Φ_v		WL.	
Ra		QTY	

2017-08-08

Packing

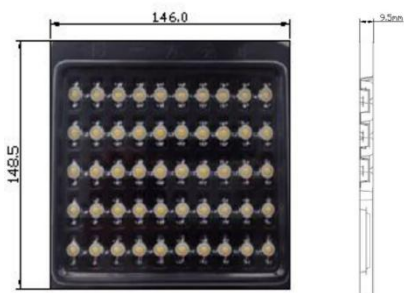
1. Tube Packing

Packing Standard



PACKING	DETAILS		
	TUBE	BAG	BOX
QTY	50pcs	20tubes	30bags

2. Box Packing



PACKING	DETAILS	
	SET	BOX
QTY	50pcs	300boxes

11. Legal and additional information.

About Shenzhen SanTang Lighting Co., Ltd.

SHENZHEN SANTANG LIGHTING CO., LTD. (hereafter called ST) is the integration of Independent R&D, Production, and Brand agency which is dedicated to providing LED light-emitting devices and LED light-emitting modules for small and medium enterprises (SME).

Main products are widely used in outdoor lighting, commercial lighting, grow lighting, and other special lighting fields which are included three parts with Customized Module Series (DC/AC PCBA, DC/customized size COB), General Lighting Series (COB, HIGH POWER LED, SMD) and Special lighting Series(UV,IR,GROW LIGHT), and the products have been exported to Europe, Middle-East, East-South Asia and South America.

OEM/ODM inquiries will be warmly accepted by ST company with its great abilities of product innovation and supply chains management ,and in the next 10 years, we are all committed to focusing on LED light-emitting devices fields and going forward hand in hand with each partner in the best way “Hit The Lights Together”!

Shenzhen SanTang Lighting Co., Ltd.

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