

ST-High Power White

ST02-KXX70WXXX



Product Brief

Features And Benefits

● LM-80, RoHS Approved

● 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

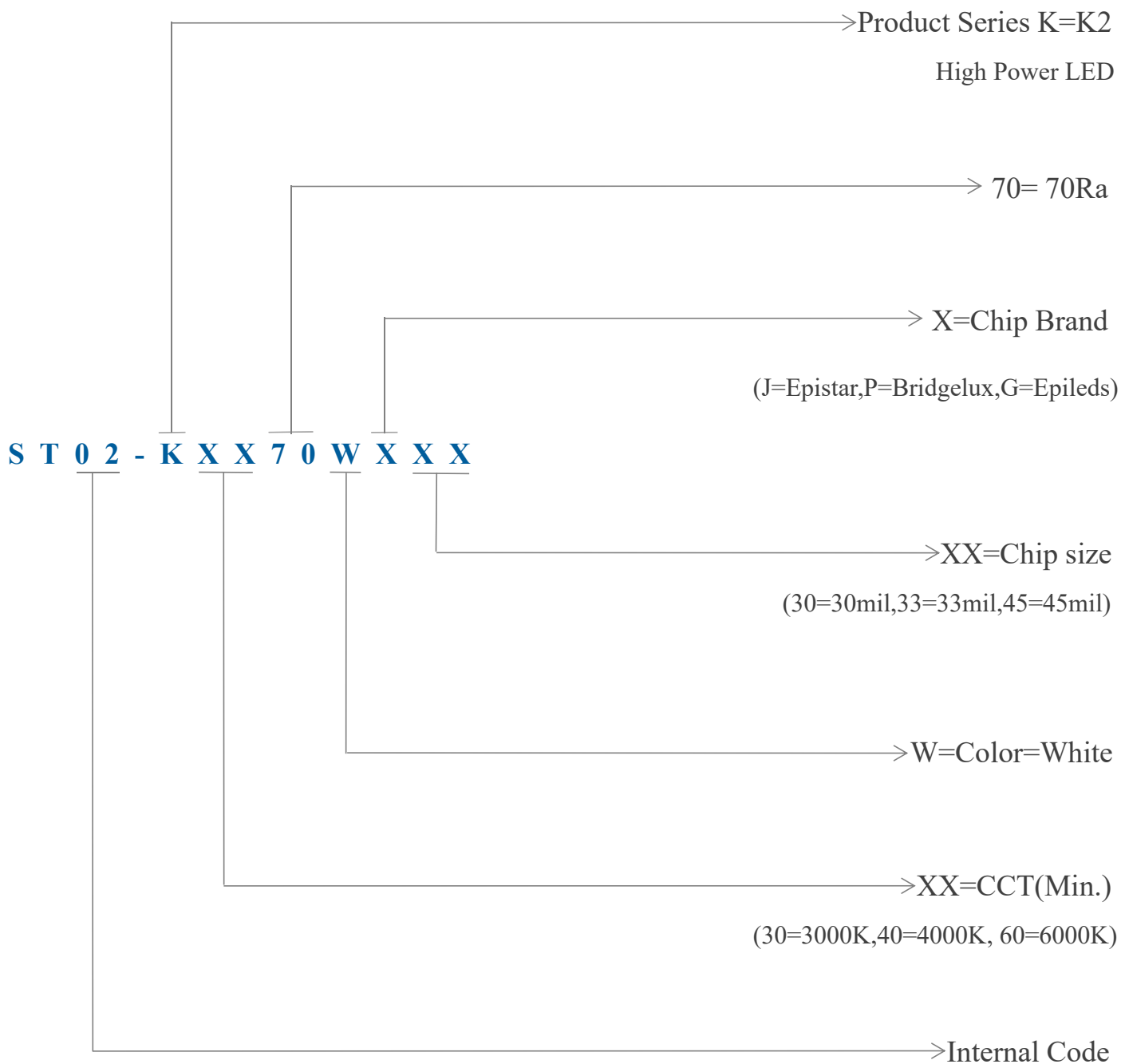
● Decorative&Pathway lighting

● Wall washer&Under ground lighting

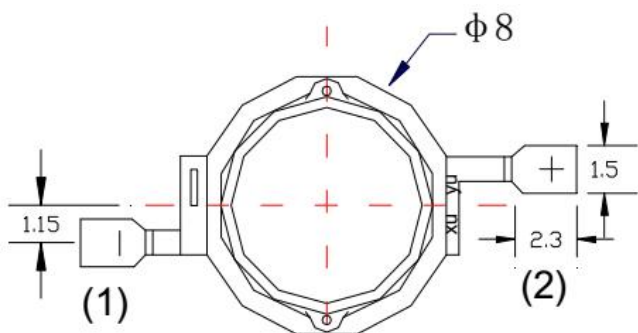
● Ceiling light&Par light Indoor lighting

1.Part Number Nomenclature

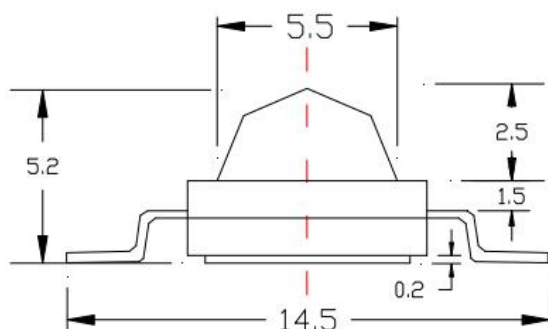
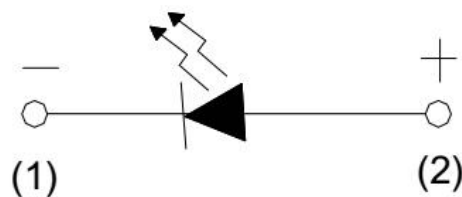
Part Numbers For ST-High Power White Follow The Convention Below:



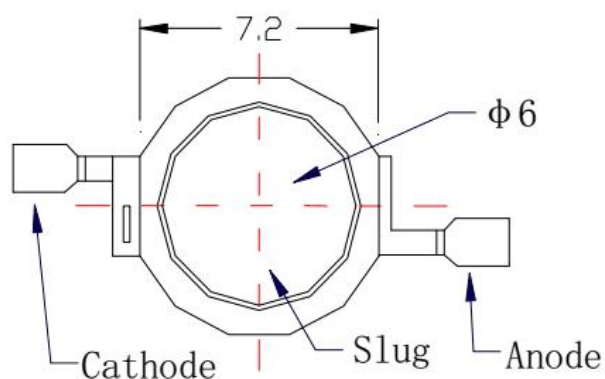
2.Outline Dimensions



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 White.

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)	--	2000V
Hand Solder Temperature		350±20°C/3~5sec

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

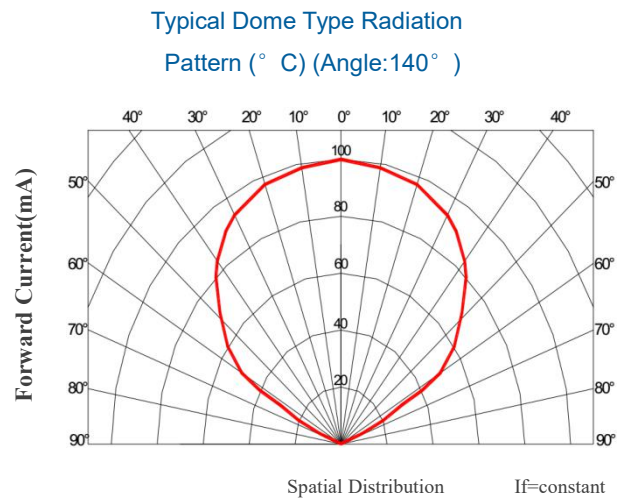
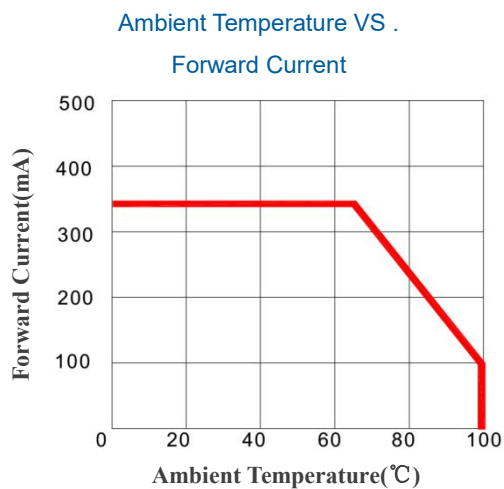
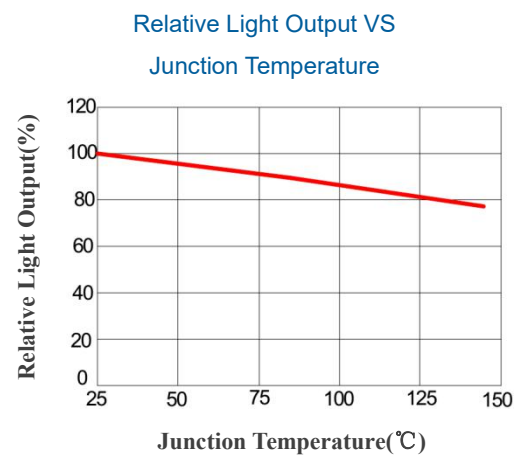
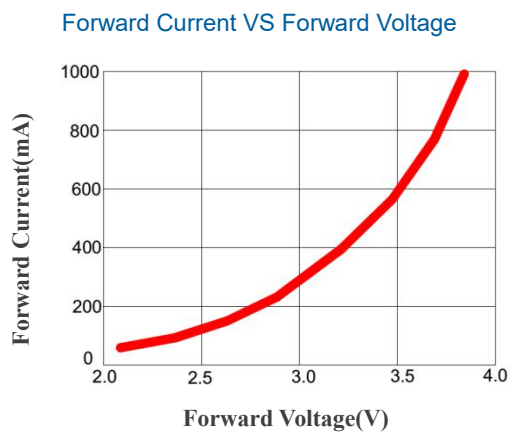
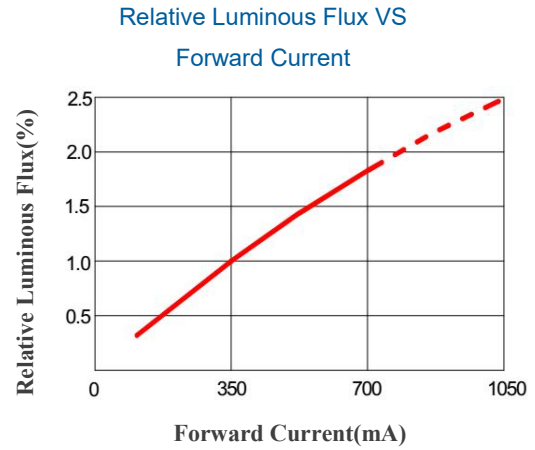
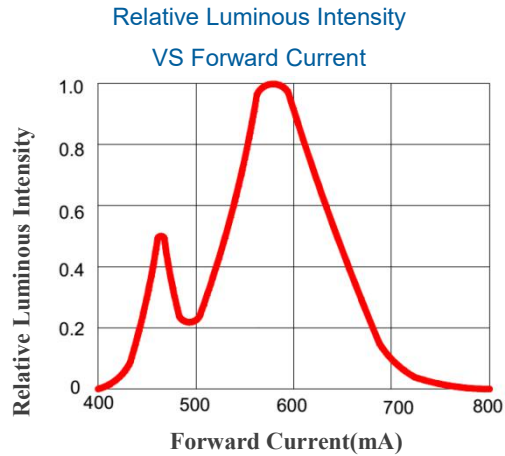
4. Electrical -Optical Characteristics (T_A=25℃)

PARAMETER	CHIP	CONDITION	RA	MIN.	TYP.	MAX.	LM/W	UNIT
Forward Voltage	/	IF=350mA /Ta=25℃	/	3.0	3.2	3.4	/	V
Luminous Flux	Bridgelux 45mil	CCT: 6000K 350mA	>80	125	130	135	>115	LM (lm/w)
			>70	140	145	150	>135	
		CCT: 4000K 350mA	>80	125	130	135	>115	
			>70	140	145	150	>135	
		CCT: 3000K 350mA	>80	120	125	130	>110	
			>70	135	140	145	>125	
		CCT: 6000K 350mA	>80	105	110	115	>95	
			>70	120	125	130	>110	
	Epistar 33mil	CCT: 4000K 350mA	>80	105	110	115	>95	
			>70	120	125	130	>110	
		CCT: 3000K 350mA	>80	100	105	110	>90	
			>70	115	120	125	>105	
		CCT: 6000K 350mA	>80	95	100	105	>85	
			>70	110	115	120	>100	
	Epistar 30mil	CCT: 4000K 350mA	>80	95	100	105	>85	
			>70	110	115	120	>100	
		CCT: 3000K 350mA	>80	90	95	100	>80	
			>70	105	110	115	>95	

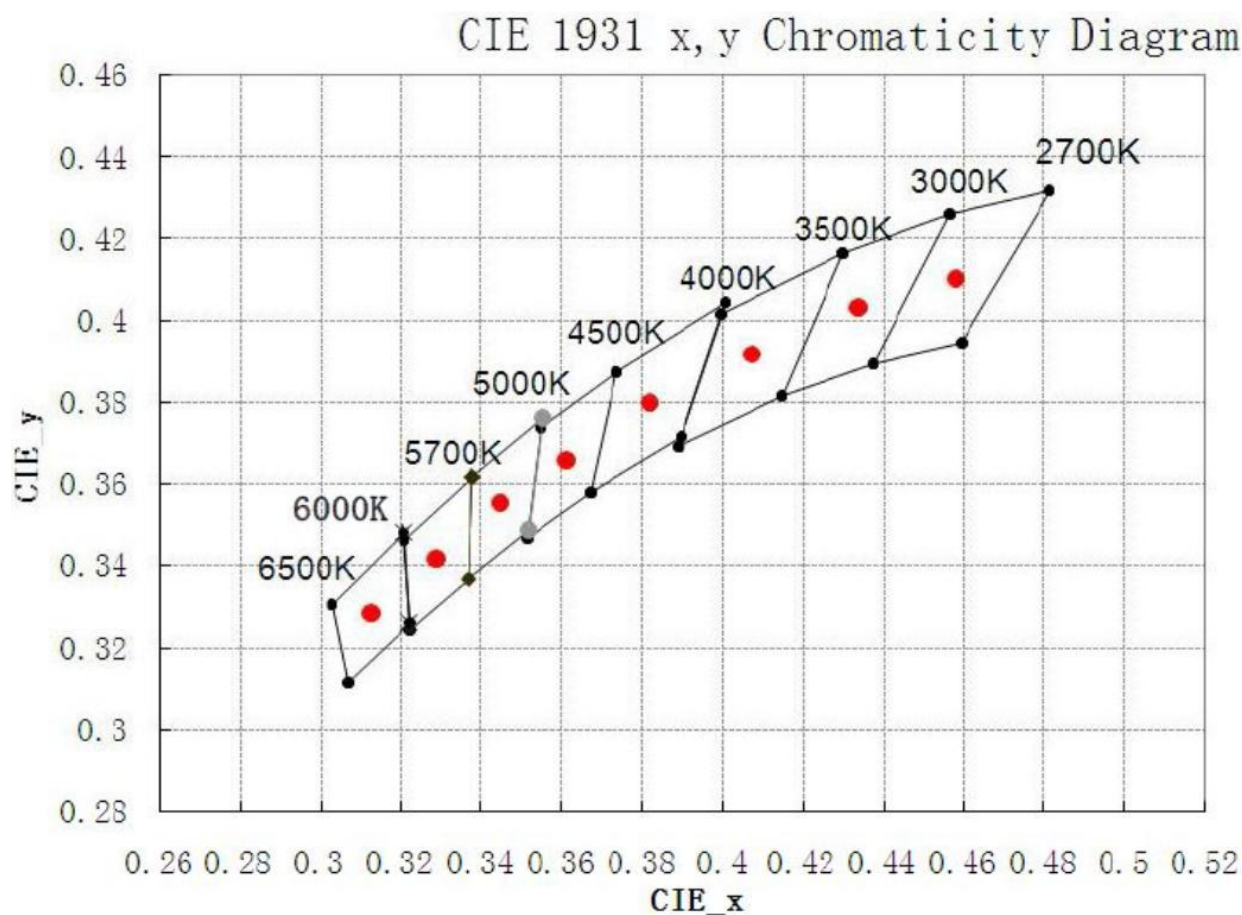
Note:

1. Data above for reference only.
2. Any CCT(1500-20000k) can be customized.

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



6.CIE Chromaticity Diagram: (If=350mA;TA=25℃)



Color Rank:

Center Color	2725K	3045K	3560K	3985K	4550K	5028K	5665K	6530K
X	0.4578	0.4338	0.4082	0.3818	0.3607	0.3447	0.329	0.3123
Y	0.4101	0.403	0.3918	0.3797	0.3675	0.3553	0.3417	0.3282

7. 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

Test Item And Results

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

8.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

CCT-Correlated Color Temperature

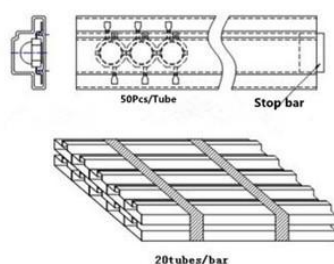
QTY--(Quantity)

SANTANG LIGHTING			
Model			
Power		Chip	
IF		VF	
IV Φ_v		CCT	
Ra		QTY	
2017-08-08			

Package

1. Tube Packing

Packing Standard



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

2. Box Packing



PACKING	DETAILS	
	SET	BOX
QTY	50pcs	300boxes

9. 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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