NLC3535AV1 Datasheet

Elec-Tech International Co., Ltd.

Part No : **NLC3535AV1**

Version：**V1.0**

Date：**19/06/2018**

3535RGBW 4in1

Features

- High Flux，
- High luminous flux density，compact structure，suitable for optical design
- Superior optics performance，design for high quality luminous environment .
- Effectively to reduce system cost,and with the optimim solution

Applications

- Wall washer
- Group buried light
- Flood light
- Stage light

Specification

Color	Wavelength Range		Flux	Forward Voltage	Angle	thermal resistance
@350mA	Min	Max	Typ.	Typ.	Typ.	Typ.
Red	615nm	630nm	62lm	2.20V	140°	6℃/W
Blue	450nm	475nm	22lm	2.95V	140°	6℃/W
Green	520nm	535nm	95lm	3.15V	140°	6℃/W
White	CCT:4000K, Ra:80		95lm	2.9V	140°	6℃/W

Notes：1.NLC3535AV1 test current350mA，test time20ms，ambient temperature25℃；

2.Beam angle is 50% central light intensity angles .ETI can provide light source documents for ProSourceLighttools\tracepro\ASAP\ZEMAX...ect optical simulation software ；

3.Due to measurement technique limitation ， there have some errors in product testing，ETImaintainsatesting tolerance of±7% on flux and power measurement，±1nm on wavelength measurement，±0.1 on voltage measurement，±0.007 on chromaticity（CCx、CCy）。

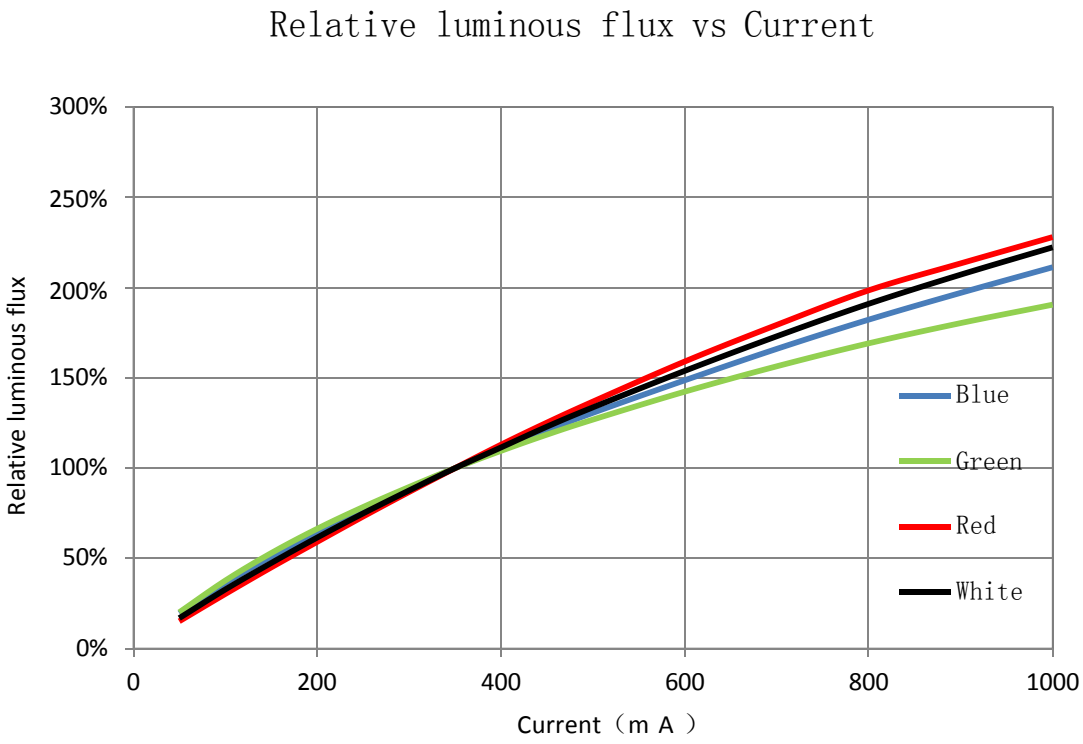
Absolute Maximum Ratings

Item	Symbol	Absolute Maximum Rating
Junction temperature（℃）	T_j	115℃
Operation temperature （℃）	Top	-40℃ -105℃
storage temperature(℃)	Tstg	-40℃ -105℃
Forward current	I_F	500m A
Pluse forward current	IFM	700mA
Reverse voltage	V_R	No reverse operation design

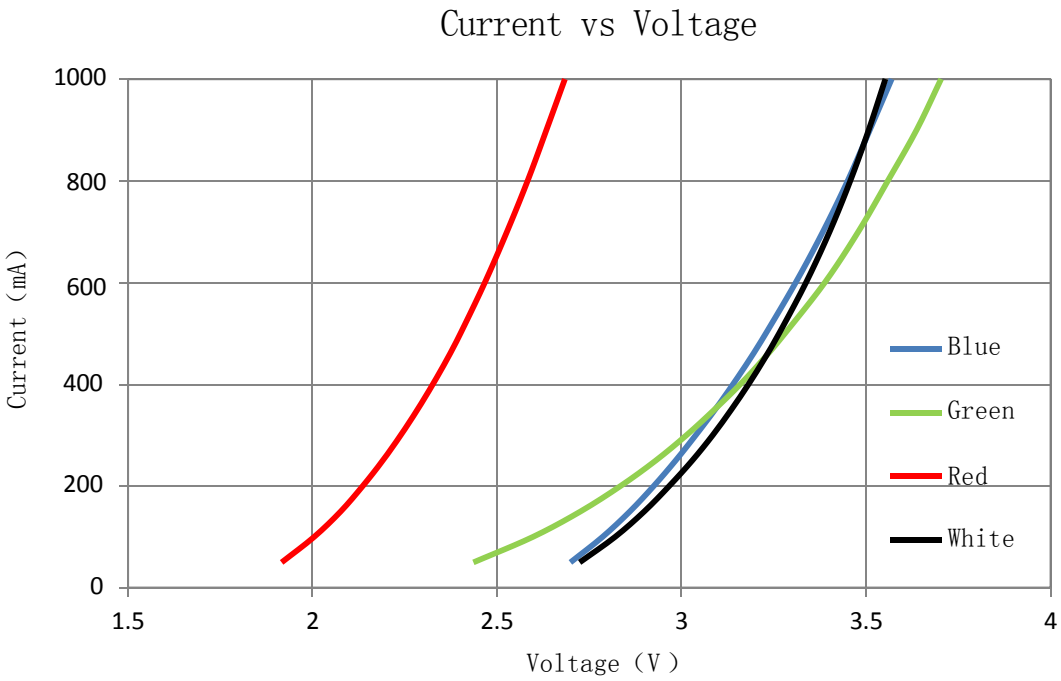
Notes：

1. Maximum Forward Current and Maximum Pulse Current require the junction temperature to be lower than the rated Junction temperature
2. IFM Condition Pulse width at 50ms and duty cycle at 0.016

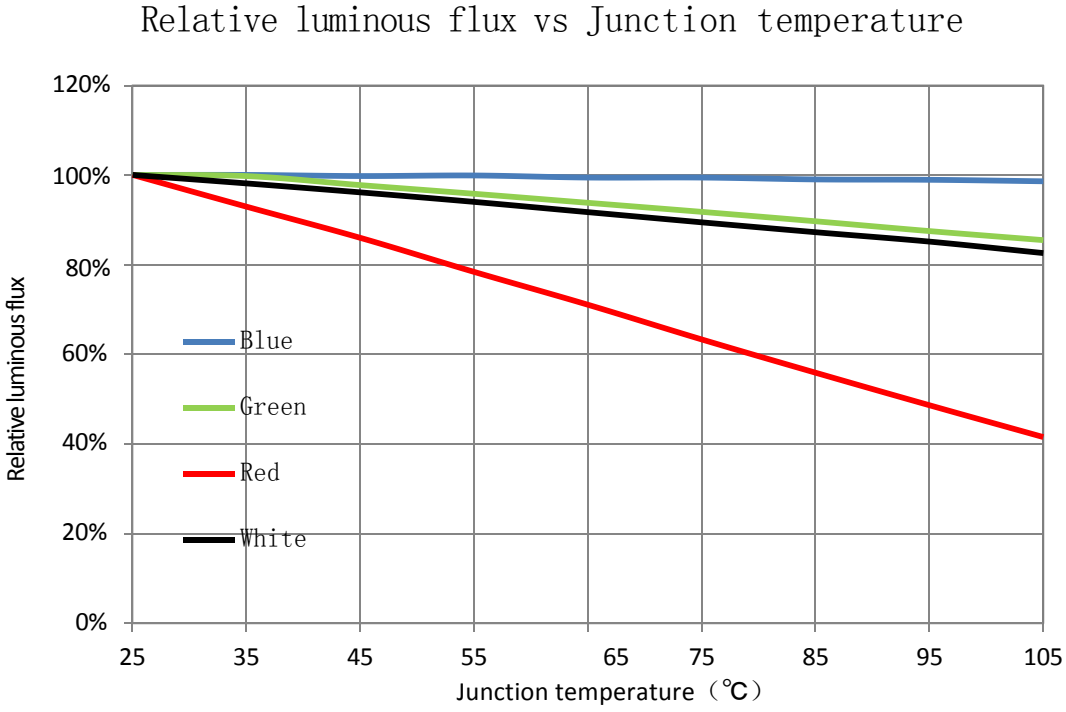
Product characteristic curve



Product characteristic curve

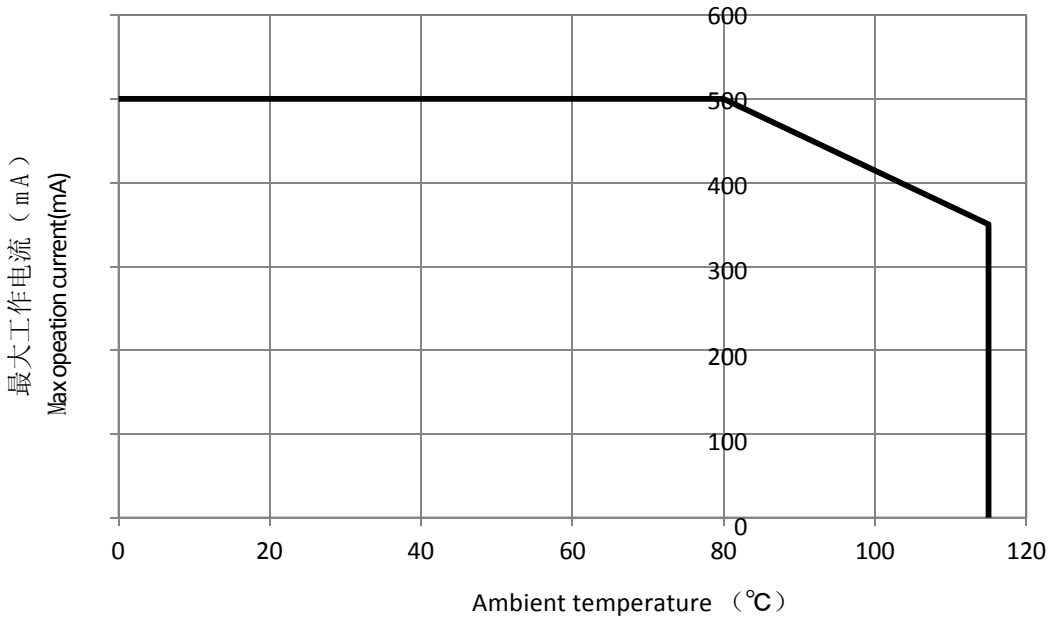


Product characteristic curve



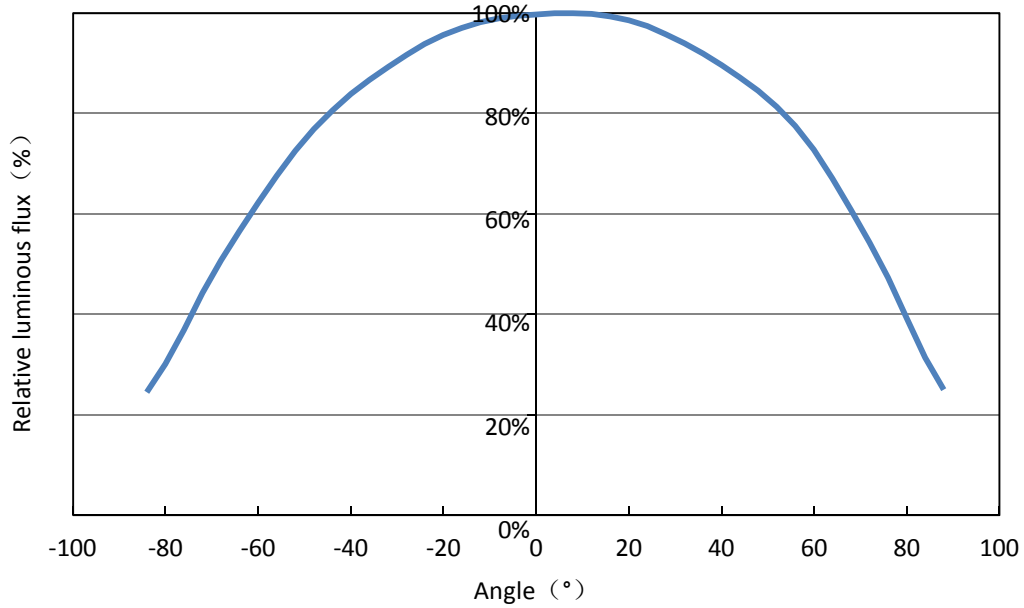
Product characteristic curve

Max operation current VS Ambient temperature

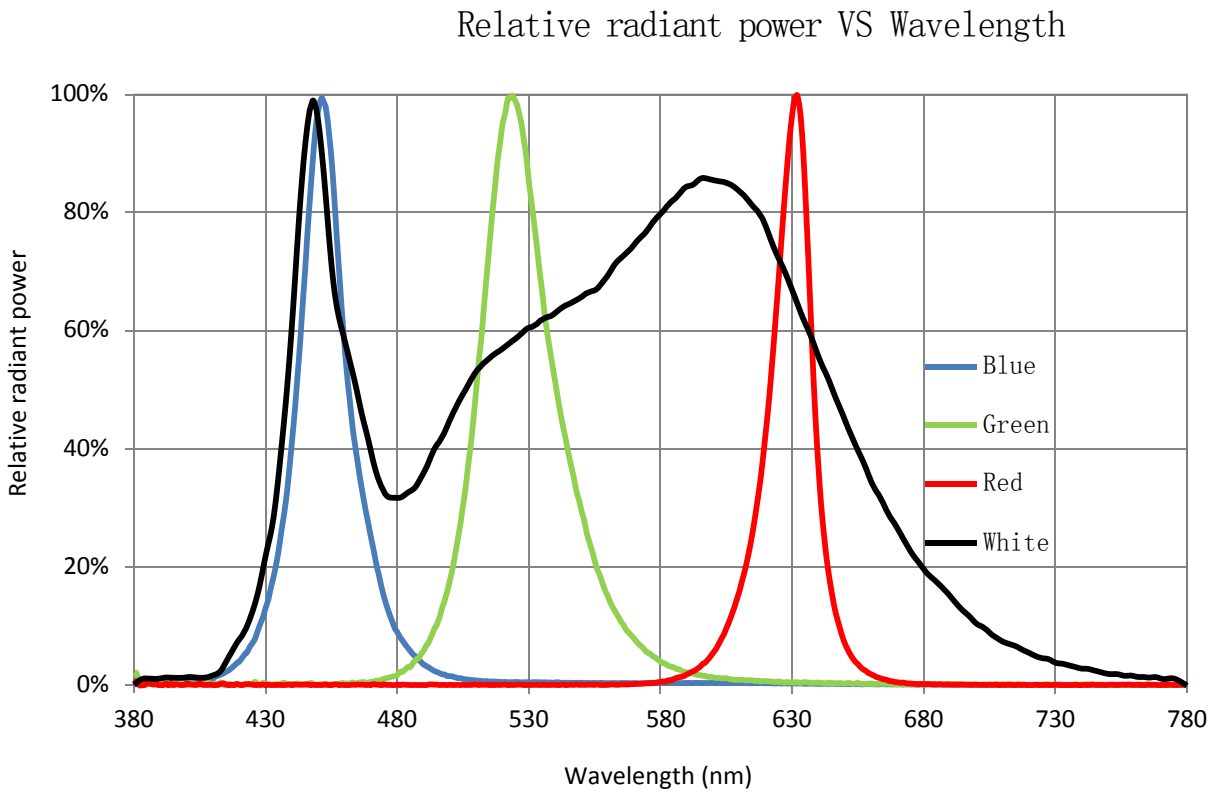


Product characteristic curve

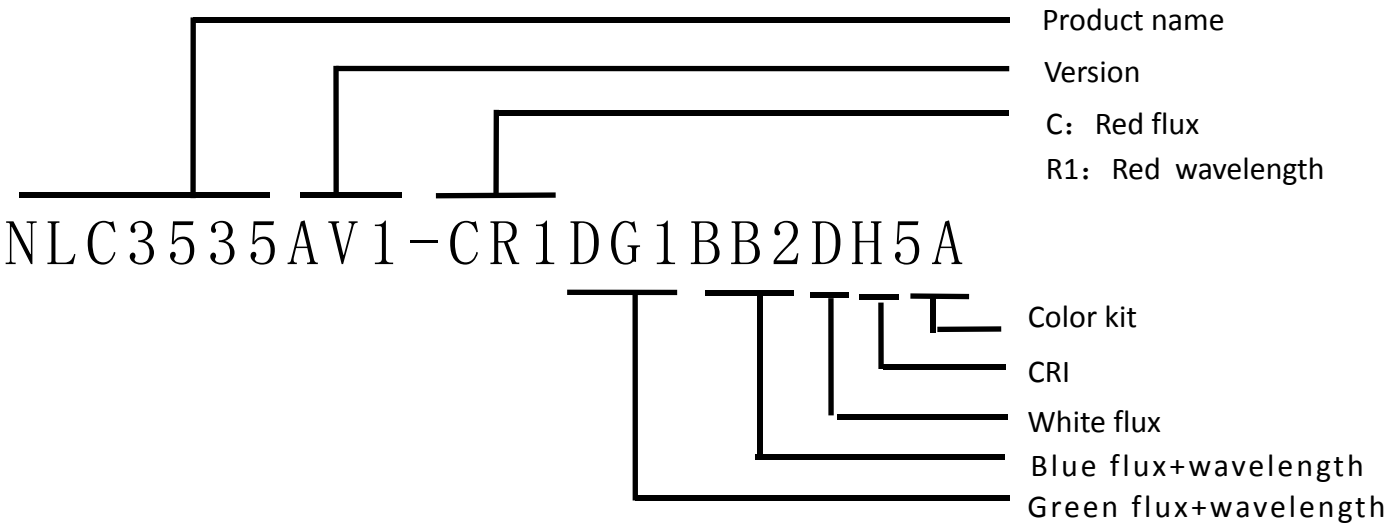
Relative luminous flux VS Angle



Product characteristic curve



Product name description：



Wavelegth specification

Wavelength Kit	Wavelength	Unit
R1	615~620	nm
R2	620~625	nm
R3	625~630	nm
G 1	520~525	nm
G 2	525~530	nm
G 3	530~535	nm
B1	450~455	nm
B2	455~460	nm
B3	460~465	nm
B4	465~470	nm
B5	470~475	nm

Flux Specification

Color	Flux	Min	Max	Unit
Blue（B）	B	12	35	lm
Red（R）	C	40	80	lm
Green/White（G/W）	D	70	90	lm
	E	90	110	lm
	F	110	130	lm

Color Kit

Color Kit	CCT	Unit
5A	4000	K
5B	4000	K
7A	3000	K
7B	3000	K

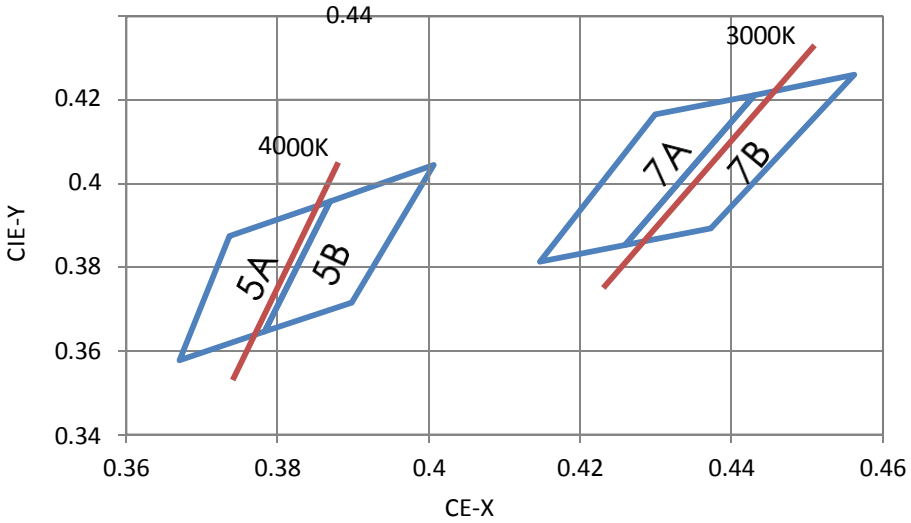
CRI Specification

CRI	Specification
H	CRI80

Color Kit

Kit No	Color	Group	Flux(lm)	DWL/Chromaticty Bins
A1	Red	C	40-80	R1、R2、R3
	Green	D	70-90	G1、G2、G3
		E	90-110	
		F	110-130	
	Blue	B	12-35	B1、B2、B3、B4
	White	D	70-90	5A
		E	90-110	
		F	110-130	
A2	Red	C	40-80	R1、R2、R3
	Green	D	70-90	G1、G2、G3
		E	90-110	
		F	110-130	
	Blue	B	12-35	B1、B2、B3、B4
	White	D	70-90	5B
		E	90-110	
		F	110-130	
A3	Red	C	40-80	R1、R2、R3
	Green	D	70-90	G1、G2、G3
		E	90-110	
		F	110-130	
	Blue	B	12-35	B1、B2、B3、B4
	White	D	70-90	7A
		E	90-110	
		F	110-130	
A4	Red	C	40-80	R1、R2、R3
	Green	D	70-90	G1、G2、G3
		E	90-110	
		F	110-130	
	Blue	B	12-35	B1、B2、B3、B4
	White	D	70-90	7B
		E	90-110	
		F	110-130	

Color Group Description：



Test Tolerance：±0.007 on chromaticity（CCx,CCy）

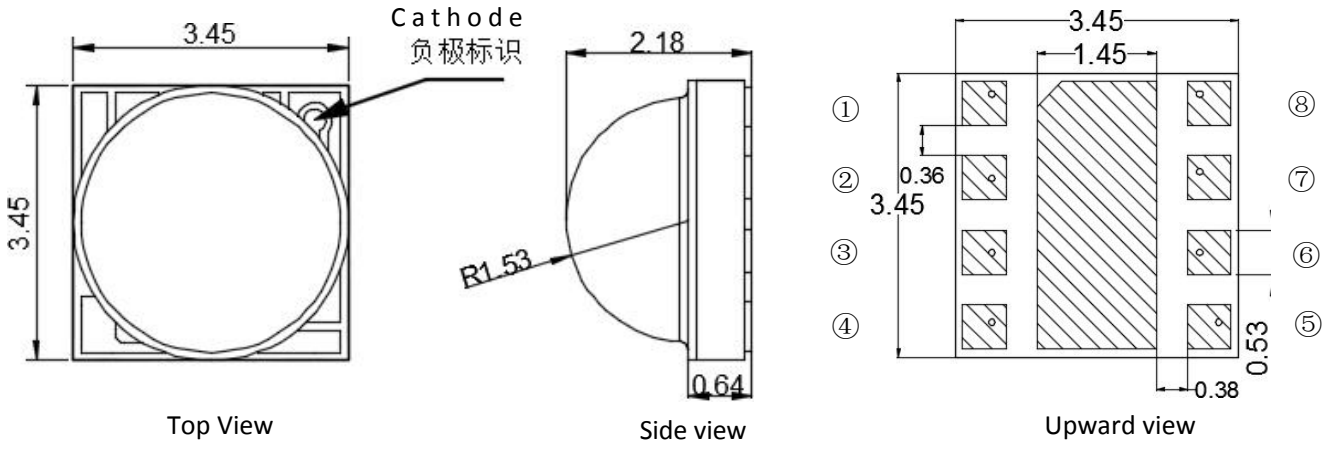
Test current：350mA , Test time：20ms Ambient temperature：25℃

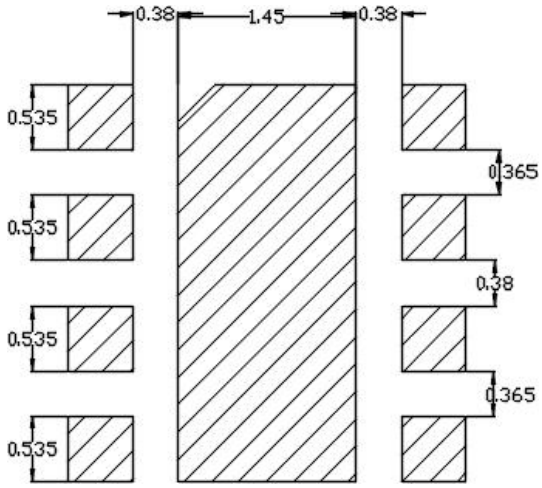
Color Group——Chromaticity

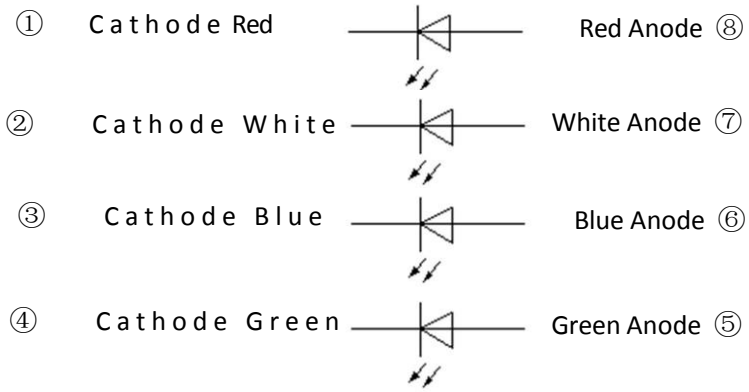
Region	x	y	Region	x	y
5A	0.367	0.3578	5B	0.3783	0.3646
	0.3736	0.3874		0.3869	0.3958
	0.3869	0.3958		0.4006	0.4044
	0.3783	0.3646		0.3898	0.3716
7A	0.4147	0.3814	7B	0.4259	0.3853
	0.4299	0.4165		0.443	0.4212
	0.443	0.4212		0.4562	0.426
	0.4259	0.3853		0.4373	0.3893

Mechanical Dimensions:

Unit： （ m m ） Tolerance ： ±0.1

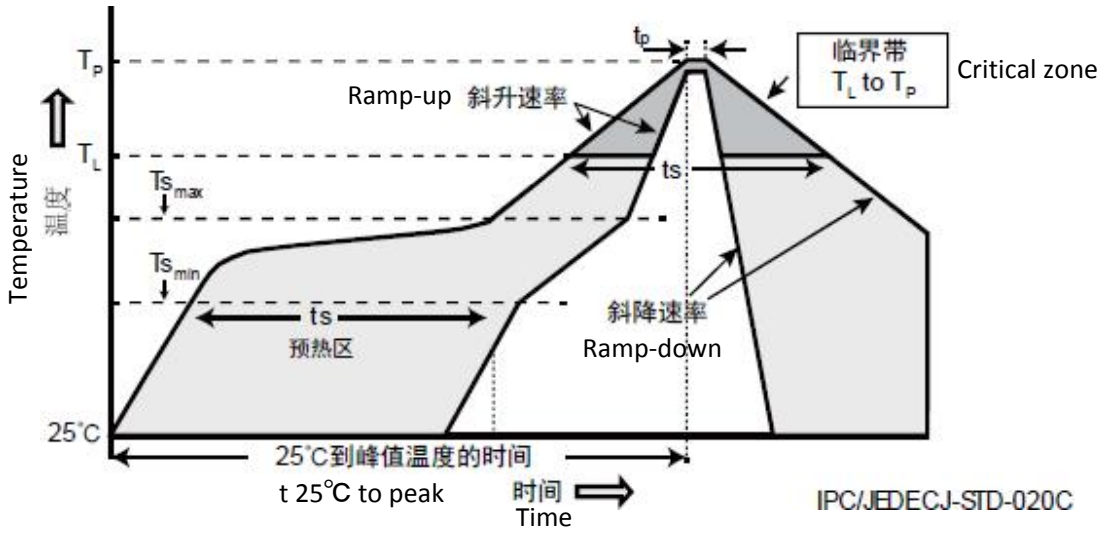






Recommened PCB Solder Pad

Recommended Reflow Profile Curve

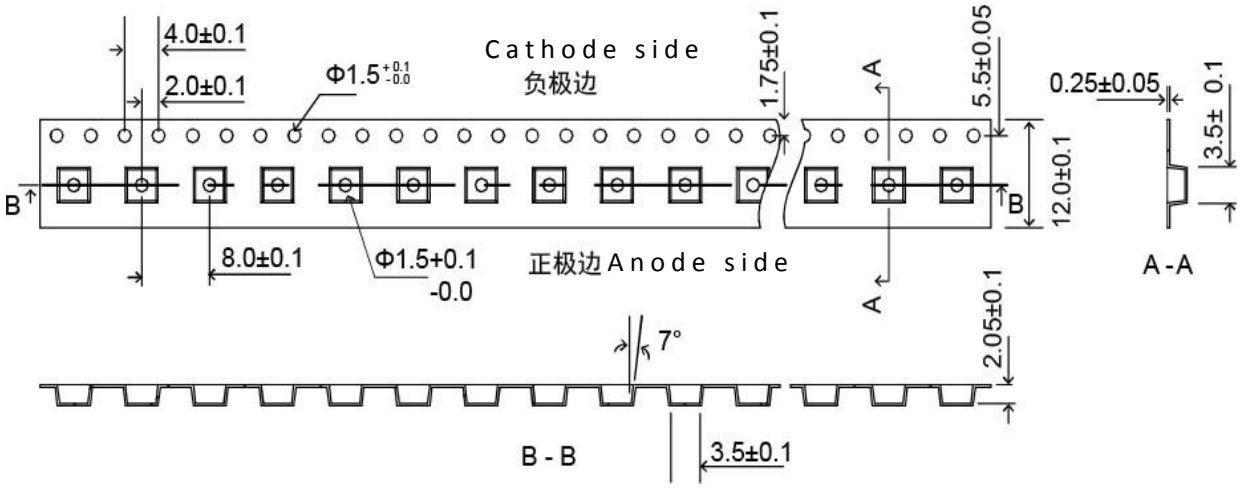


Profile feature	Lead-Based Solder	Lead-Free Solder
Ramp-up rate（Ts_{max} to Tp）	3℃/s Max	3℃/s Max
Preheat temperature min（Ts_{min}）	100℃	150℃
Preheat temperature max（Ts_{max}）	150℃	200℃
Preheat time（Ts_{min} to Ts_{max}）	60-120s	60-180s
Time maintain above：temperature（T_L）	183℃	217℃
Time maintain above：time（t_L）	60-150s	60-150s
Peak/classification temperature（T_P）	215℃	260℃
Time within 5℃of peak temperature（t_P）	10-30s	20-40s
Ramp-Down（T_P to T_L）	6℃/s Max	6℃/s Max
Time 25℃ to peak temperature	6min Max	8min Max

Notes：1.the temperature distribution feature refer to IPC/JEDECJ-STD-020C.

2.Moisture sensitive Level 1 （MSL1）。

Tape and Reel Dimensions：
1000pcs/reel
Unit： m m



User feed direction 进料方向→