

SunpuLED



BeterLED, BeterLife

Product Acknowledgment			
Manufacturers		Client Confirm (Quality)	Client Confirm (R&D)
Prepared			
Audit			
Approve			
After both sides confirmed the Acknowledgment qualified, must be signed and sealed			
Supply-side Address: No150.XinHuiRoad, Hi-TechPark, Ningbo, china			
Tel: 0574-87740939			



Part No: P35B-55AA0101-0301AD-A



Features:

High brightness、 high reliability、 long life

Light angle: 60°

Typical color temperature: 5500K-6500K

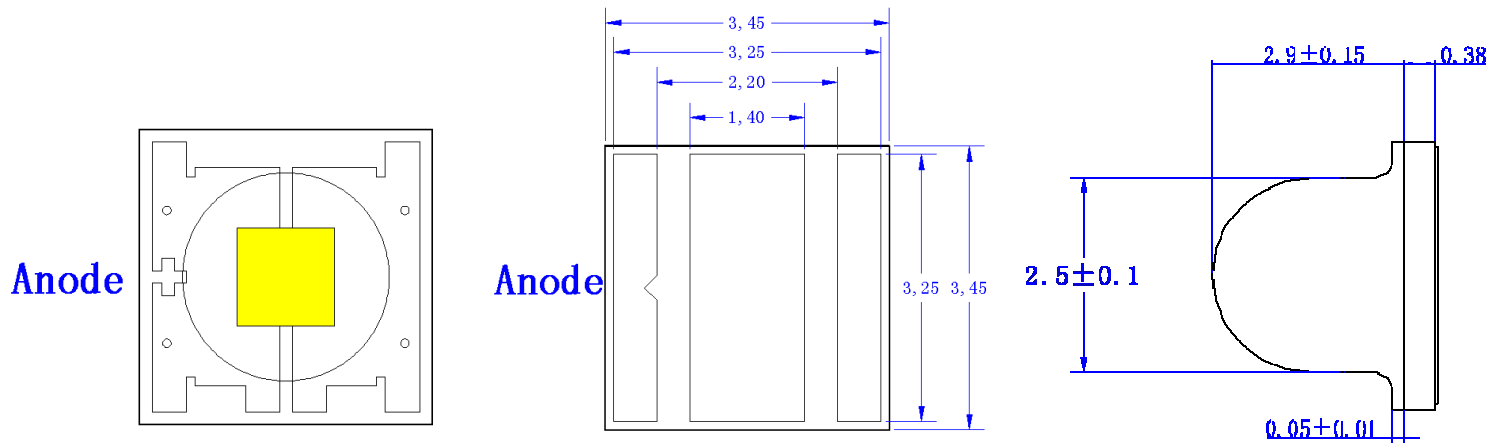
productpresentation:

This series of products with high reliability of alumina ceramic substrate, with high brightness, high density, long service life, low depreciation, etc., is an ideal choice for outdoor high requirements of products.

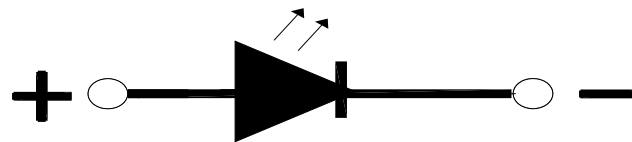


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Outline dimensions:



Circuit structure:



1P1S

NOTES:

All dimensions are in millimeters.

Tolerance is ± 0.1 mm unless otherwise noted.

It is strongly recommended that the temperature of TS (Welding plate) is not higher than 85°C.



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Limit parameter (Ta = 25℃)

Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
DC Forward Current	I_f	Tc = 25℃	----	1000	mA
Reverse voltage	V_r	Tc = 25℃	----	5	v
LED Junction Temperature	T_j	----	----	150	℃
Operating Temperature	T_{opr}	----	-40	+85	℃
Storage Temperature	T_{str}	----	0	+40	℃
Soldering temperature	----	----	260° for 5seconds max		

Photoelectricparameters (Ta = 25℃)

CCT	Item	Symbol	Test	Min	Typ	Max	Unit
5500-6500k	Forward Voltage	V_F	IF=350mA	2.8	3.0	3.2	V
	Luminous Flux	Φ_v		140	150	--	lm
	Color Temperature	CCT		5500	6000	6500	K
	General Color	R_a		--	70	--	--
	Electric power	W		--	10	--	℃/W



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Typical curve

Fig.1 forward current Vs forward voltage

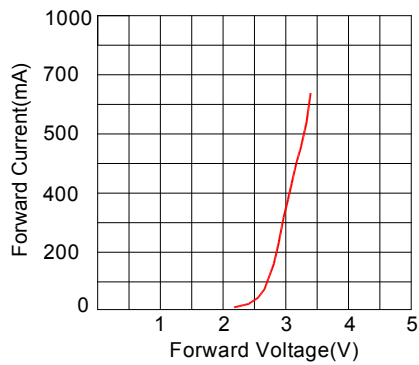


Fig.2 Relative intensity Vs Forward current

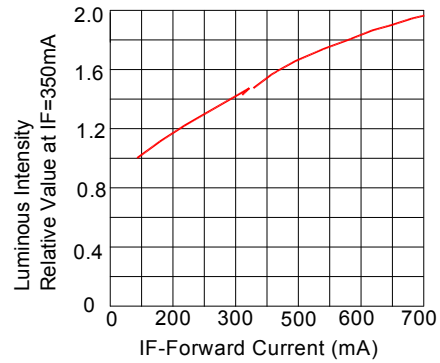


Fig.3 Forward current Vs Ambient temperature

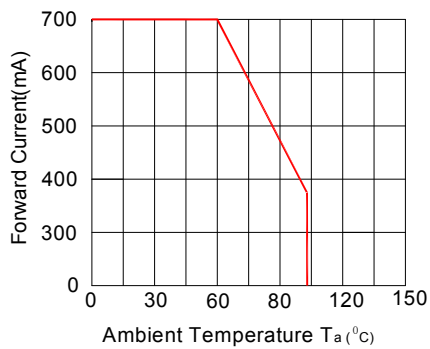
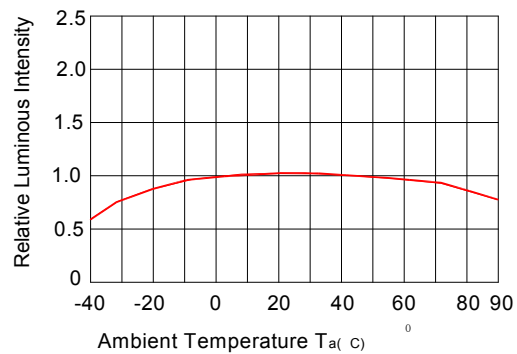
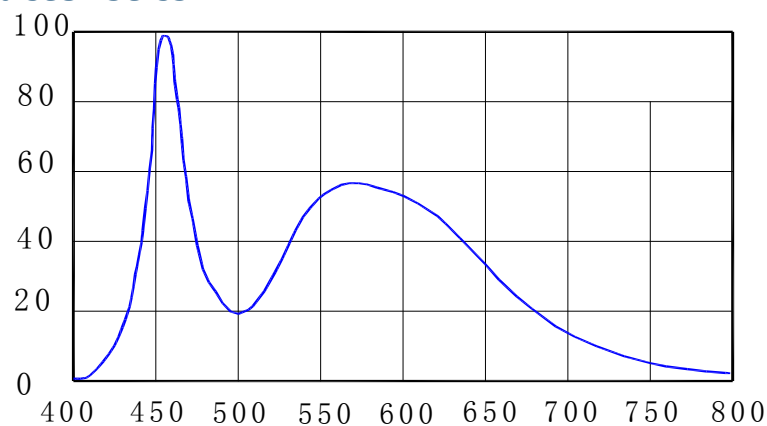


Fig.4 Relative intensity Vs Ambient temperature



Optical Characteristics



Head Quarter: No. 150, Xin Hui Road, Hi-Tech Park, Ningbo



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Reliability Tests and Results

Test	Reference Standard	Test Conditions	Test Duration	Units Failed/Tested
Temperature Cycle	JEITA ED-4701 100 105 or MIL-STD-202G	-40°C(30min)~25°C(5min)~100°C(30min)~25°C(5min)or -40°C(30min) ~ 100°C(30min)	100cycles	0/10
High Temperature Storage	JEITA ED-4701 200 201	T _A =90°C	1000hours	0/10
HighTemperature Humidity Storage	JEITA ED-4701 100 103	T _A =85°C RH=90%	1000hours	0/10
Low Temperature Storage	JEITA ED-4701 200 202	T _A =-40°C	1000hours	0/10
High Temperature Operating Life	JESD22-A108D	TC=85°C I _F =700mA	1000hours	0/10
Electrostatic Discharges	JEITA ED-4701 300 304	HBM 2KV 3KΩ 100Pf 3pulses nedative		0/10
Temperature Cycle *1	Sunpu-opto	-40°C(30min)~ (90s)~110°C(30min) ~ (90s) -40°C	300cycles	0/10
Temperature Humidity Storage*2	Sunpu-opto	T _A =85°C RH=85% I _F =700mA	1000hours	0/10

□ **NOTES:**

*** Measurements are performed after allowing the LEDs to return to room temperature**



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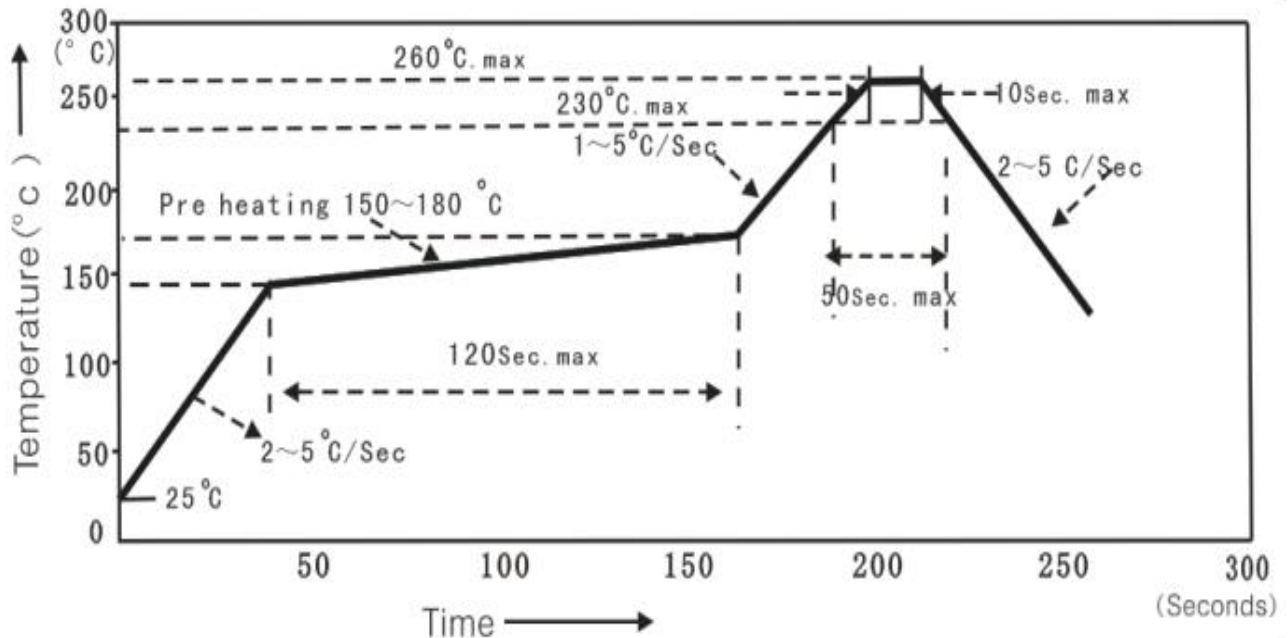
Failure Criteria

Items	Conditions	Failure Criteria
Forward Voltage (VF)	$I_F=350\text{mA}$	$>\text{Initial value} \times 1.1$
Luminous Flux (Φ_V)	$I_F=350\text{mA}$	$<\text{Initial value} \times 0.7$

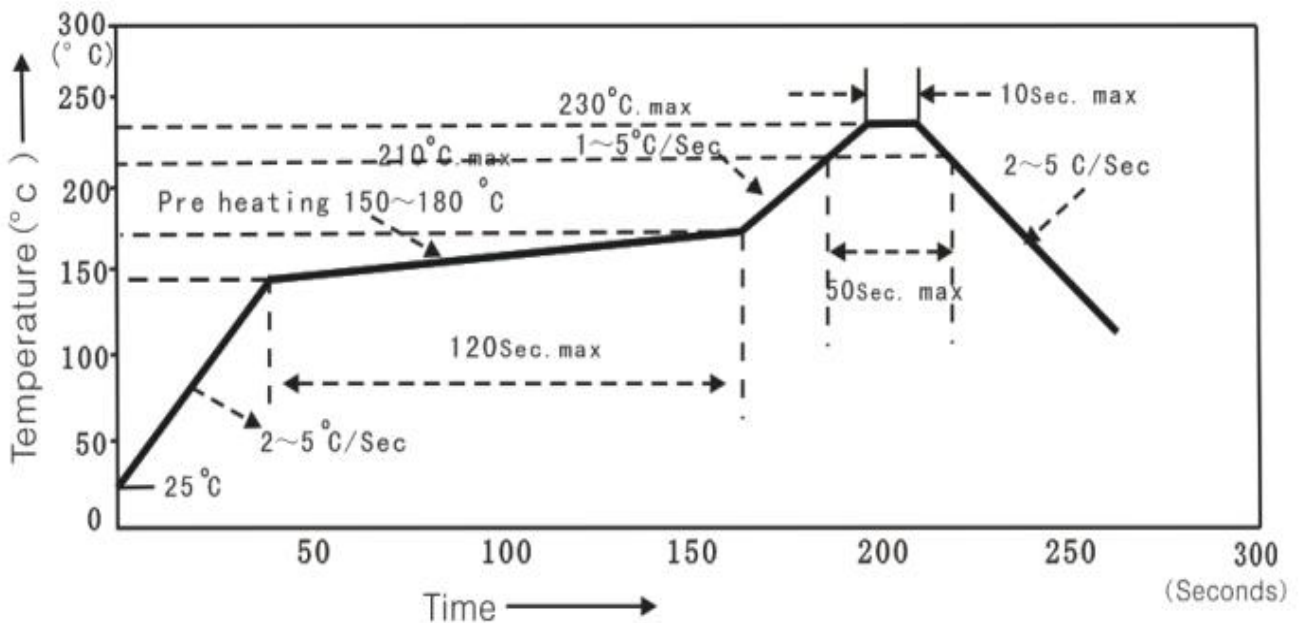


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Lead-free solder reflow curve:



Have lead soldereflow curve:.





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Temperature curve characteristics	Have lead solde	Lead-free solder
Average rate of tenperature increase($T_{smax}-T_p$)	Max 3°C/s	Max 3°C/s
Preheat: minimum temperature(T_{smin})	100°C	150°C
Prehea: maximum temperature(T_{smax})	150°C	200°C
Maintain a higher temperature: temperature (TL)	183°C	217°C
Maintain a higher temperature: : time (tL)	60-150s	60-150s
T_p /temperature	215°C	260°C
Ramp Down Rate	Max 6°C/s	Max 6°C/s
The time needed for heating up to the T_p of 25 °C	Max 6min	Max 8min

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Packaging

