

SunpuLED



BeterLED, BeterLife

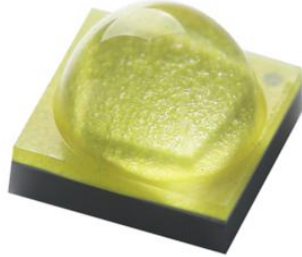
Product Acknowledgment

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



Features:

High brightness、 high reliability、 long life

Light angle: 120°

Typical color temperature: 6000K-7000K

productpresentation:

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

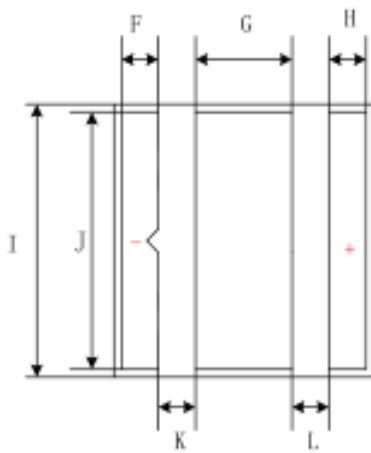
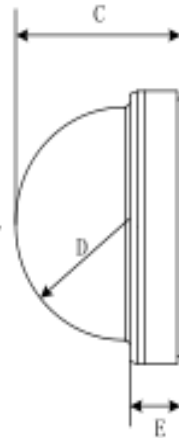
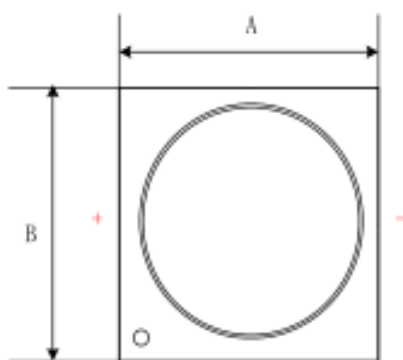


SunpuOpto
SUNPULEDCO,.LTD

LED SPECIFICATION

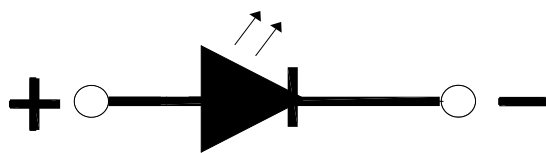
PartNo: P35C-60AA0101-0501ED-B

Outlinedimensions:



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	3.4	3.5	3.6
B	3.4	3.5	3.6
C	2.10	2.20	2.30
D	1.40	1.45	1.50
E	0.60	0.75	0.85
F	0.4	0.5	0.6
G	1.2	1.3	1.4
H	0.4	0.5	0.6
I	3.4	3.5	3.6
J	3.2	3.3	3.4
K	0.45	0.5	0.55
L	0.45	0.5	0.55

Circuitstructure:



1P1S

NOTES:

All dimensions are in millimeters.

Tolerance is $\pm 0.1\text{mm}$ unless otherwise noted.

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

HeadQuarter: No. 150, XinHuiRoad, Hi-TechPark, Ningbo

www.sunpu-opto.com Rev: B/5

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PartNo: P35C-60AA0101-0501ED-B

Limitparameter(Ta=25℃)

Parameter	Symbol	TestCondition	Value		Unit
			Min.	Max.	
DC Forward Current	I_f	Tc=25℃	----	2000	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 5 seconds max		

Photoelectricparameters(Ta=25℃)

CCT	Item	Symbol	Test	Min	Typ	Max	Unit
6000-7000k	Forward Voltage	V_F	IF=350mA	2.7	3.0	3.3	V
	Luminous Flux	Φ_v			180	--	lm
	Color Temperature	CCT		6000	6500	7000	K
	General Color	R_a		--	68	--	--
	Electricpower	W		--	2	--	℃/W



Typical curve

Fig.1 forward current Vs forward voltage

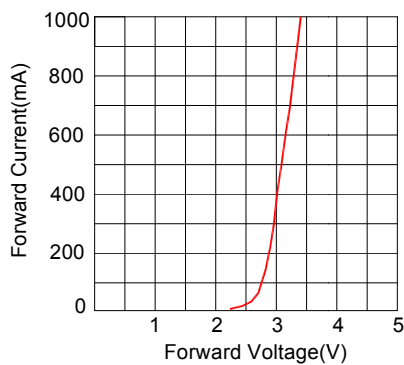


Fig.2 Relative intensity Vs Forward current

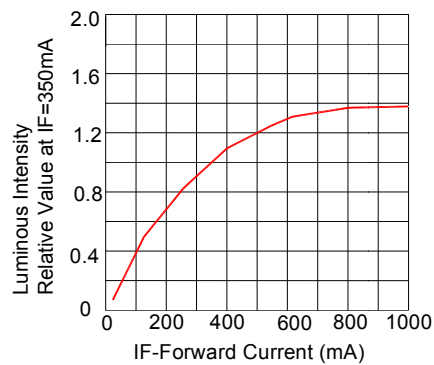


Fig.3 Forward current Vs Ambient temperature

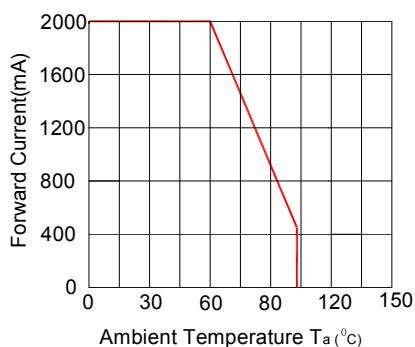
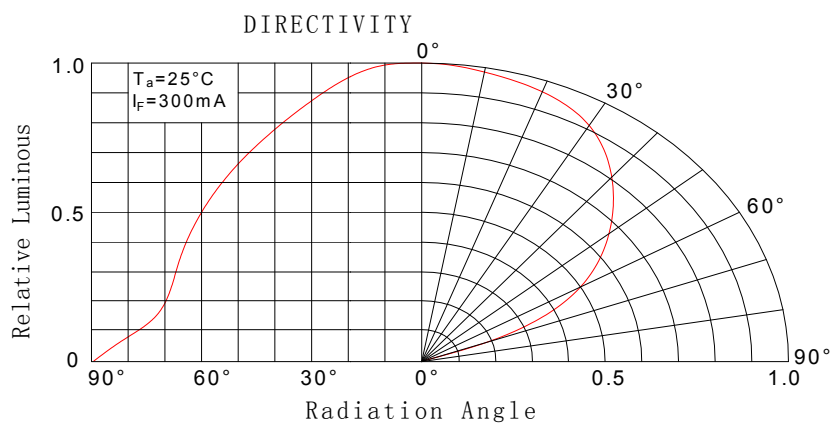
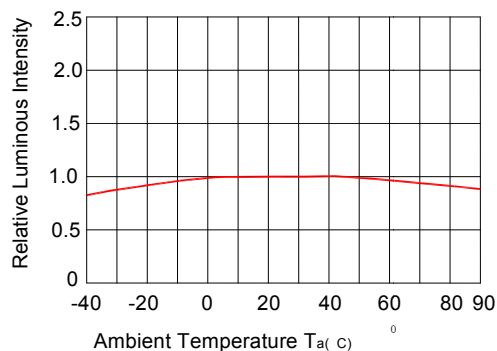


Fig.4 Relative intensity Vs Ambient temperature





PartNo: P35C-60AA0101-0501ED-B

ReliabilityTestsandResults

Test	Reference Standard	TestConditions	Test Duration	Units Failed/ Tested
Temperature Cycle	JEITAED-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	JEITAED-4701 200 201	T _A =90°C	1000hours	0/10
HighTemperatureHumidityStorage	JEITAED-4701 100 103	T _A =85°C RH=90%	1000hours	0/10
LowTemperatureStorage	JEITAED-4701 200 202	T _A =-40°C	1000hours	0/10
HighTemperatureOperatingLife	JESD22-A108D	TC=85°C I _F =2000mA	1000hours	0/10
ElectrostaticDischarges	JEITAED-4701 300 304	HBM 2KV 3KΩ 100Pf 3pulses nedative		0/10
TemperatureCycle* 1	Sunpu- opto	- 40°C(30min)~(90s)~110°C(30min) ~(90s)-40°C	300cycles	0/10
TemperatureHumidityStorage* 2	Sunpu- opto	T _A =85°C RH=85% I _F =2000mA	1000hours	0/10

✧NOTES:

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



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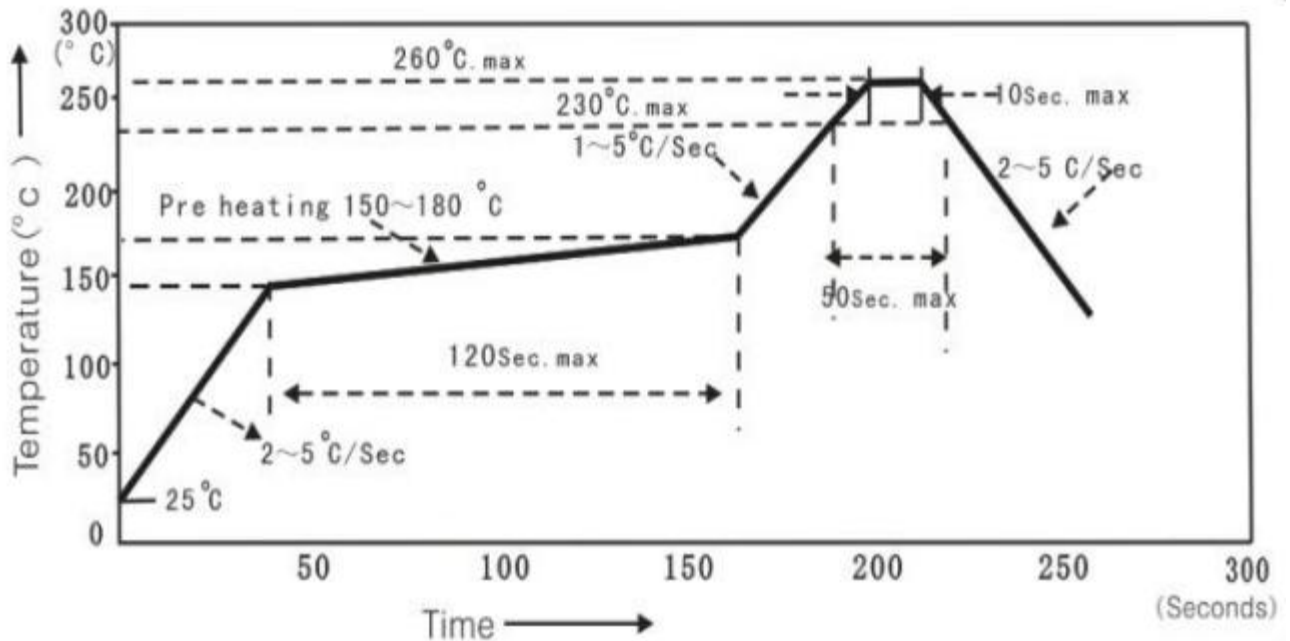
FailureCriteria

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

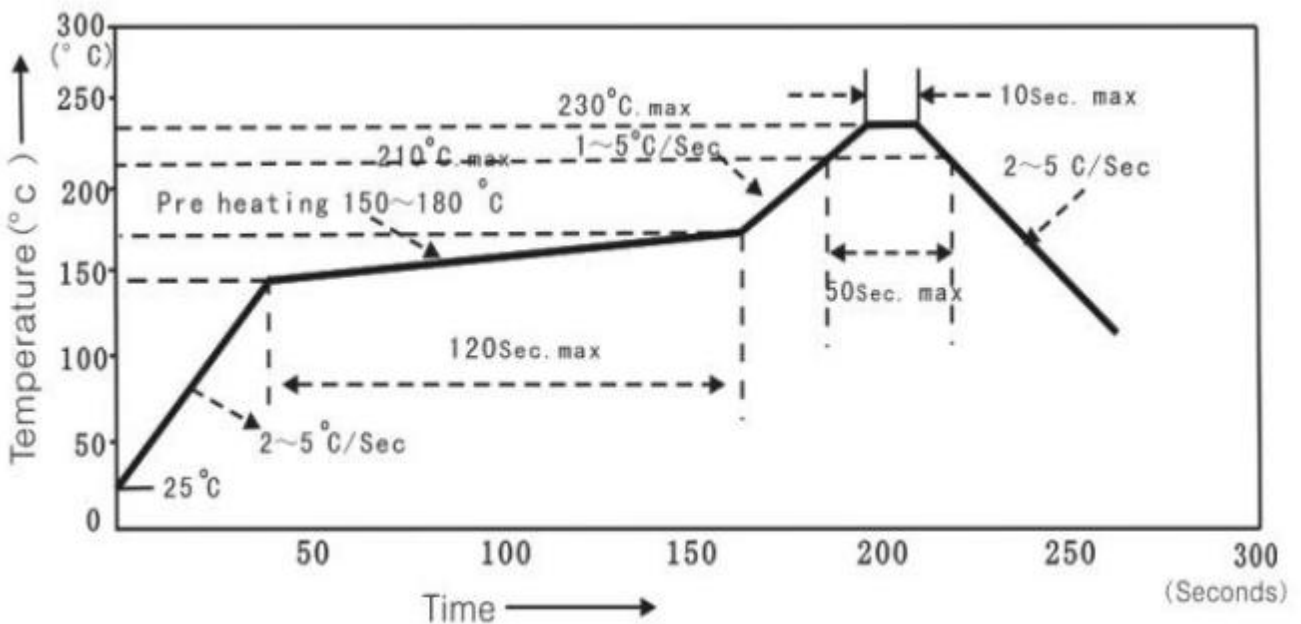


PartNo: P35C-60AA0101-0501ED-B

Lead-free solder reflow curve:



Have lead solder reflow curve:





PartNo: P35C-60AA0101-0501ED-B

Temperature curve characteristics	Have lead solde	Lead-free solder
Average rate of temperature increase(T _{max} - T _p)	Max3℃/s	Max3℃/s
Preheat: minimum temperature(T _{min})	100℃	150℃
Prehea: maximum temperature(T _{max})	150℃	200℃
Maintain a higher temperature: temperature(T _L)	183℃	217℃
Maintain a higher temperature: time(t _L)	60-150s	60-150s
T _p / temperature	215℃	260℃
Ramp Down Rate	Max6℃/s	Max6℃/s
The time needed for heating up to theT _p of 25℃	Max6min	Max8min



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Packaging

