



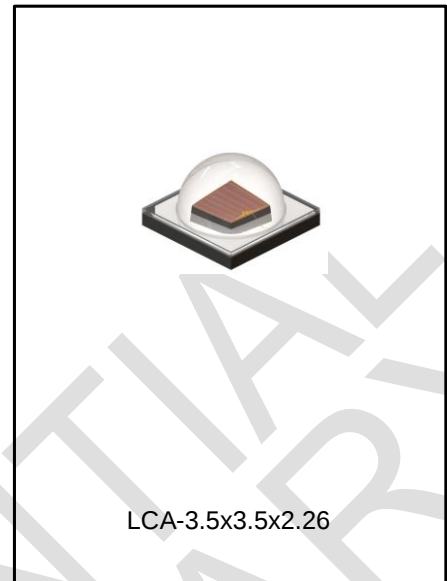
SLW3535HRV1G

DESCRIPTION

SLW3535HRV1G is a hyper red LED contains a GaAs LED chip designed and manufactured by Silan, and SMT ceramic package with silicone lens. Most compact high-power LED with high reliability, low thermal resistance and long lifetime.

FEATURES

- ◆ Dimensions: 3.5×3.5×2.26 mm
- ◆ Package: AlN ceramic package with silicone lens
- ◆ Gold plating on ceramic substrate pad
- ◆ Rating power: 2.5 W
- ◆ Radiation angle(50%): typ.120°(Lambertian emitter)
- ◆ PPE: typ. 3.95 μmol/J



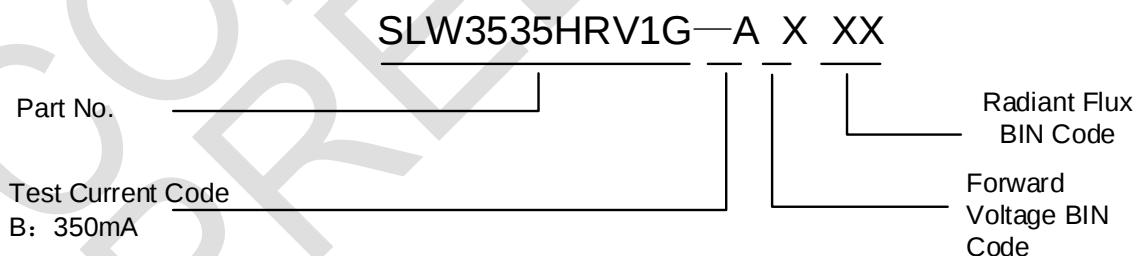
APPLICATIONS

- ◆ Architecture
- ◆ Horticulture Lighting

ORDERING INFORMATION

Part No.	Package	Marking	Hazardous Substance Control	Packing
SLW3535HRV1GTR	LCA-3.5x3.5x2.26	Null	Halogen free	Tape and reel

Part No. INFORMATION





ABSOLUTE MAXIMUM RATINGS ($T_{amb}=25^{\circ}\text{C}$, UNLESS OTHERWISE SPECIFIED)

PARAMETER	SYMBOL	Rating Values	UNIT
Junction Temperature	T_j	130	$^{\circ}\text{C}$
Forward Current	I_F	1000	mA
Forward Pulse Current	I_{fp}	1500	mA
Power Dissipation	P_O	2500	mW
Reverse Voltage	V_R	Not designed for reverse operation	
Operating Temperature	T_{opr}	-40 to +105	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40 to +125	$^{\circ}\text{C}$
Soldering Temperature	T_{sol}	260 $^{\circ}\text{C}$ for 10sec	$^{\circ}\text{C}$
ESD (HBM)	--	± 2000	V

Note:1. Forward Pulse current test conditions: Frequency 10kHz, duty ratio $\leq 10\%$;

OPTICAL ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$, UNLESS OTHERWISE SPECIFIED)

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Radiant Flux*	Φ_e	450	530	550	mW	$I_F=350\text{mA}$
Peak Wavelength	λ_p	--	660	--	nm	$I_F=350\text{mA}$
Spectral Bandwidth(50%)	$\Delta\lambda$	--	20	--	nm	$I_F=350\text{mA}$
Forward Voltage	V_F	1.8	2.0	2.2	V	$I_F=350\text{mA}$
Reverse current	I_R	--	--	10	μA	$V_R=5\text{V}$
Radiation angle(50%)	$2\theta_{1/2}$	--	120	--	Deg	$I_F=350\text{mA}$
Photosynthetic Photon Flux	PPF	--	2.9	--	$\mu\text{mol/s}$	$I_F=350\text{mA}$
Photosynthetic Photon Efficiency	PPF/W	--	3.95	--	$\mu\text{mol/J}$	$I_F=350\text{mA}$
Electrical Thermal Resistance Junction/Soderpoint	$R_{\theta J-S}$	--	1.5	--	$^{\circ}\text{C/W}$	

Note: The tolerance of radiant flux measured value: $\pm 5\%$;
The tolerance of forward voltage measured value: $\pm 0.1\text{V}$.

OPTICAL ELECTRICAL CHARACTERISTICS CODE ($I_F=700\text{mA}$, $T_{amb}=25^{\circ}\text{C}$)

Forward Voltage Code (Unit: V)			Radiant Flux Code (Unit : mW)		
Code	MIN.	MAX.	Code	MIN.	MAX.
A	1.8	2.0	1T	400	450
B	2.0	2.2	2T	450	500
--	--	--	3T	500	550



CHARACTERISTICS CURVE

Figure 1. Relative Radiant Flux vs. Forward Current

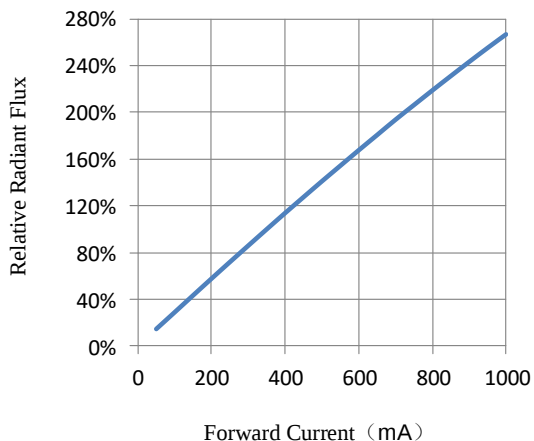


Figure 2. Forward Current vs. Forward Voltage

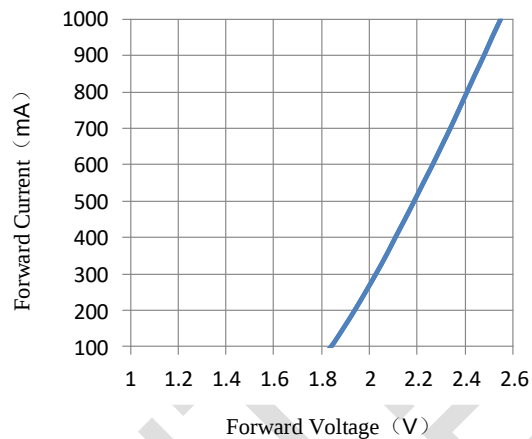


Figure 3. Forward Voltage vs. Ambient temperature

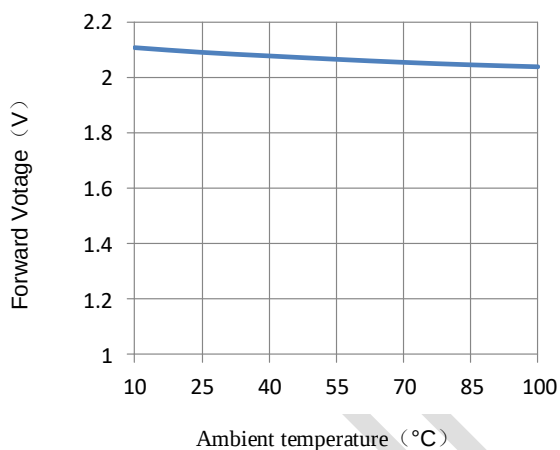


Figure 4. Relative Radiant Flux vs. Ambient temperature

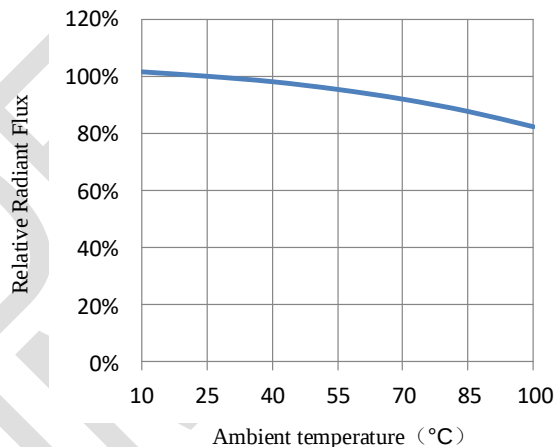


Figure 5. Relative Radiant Flux vs. Wavelength

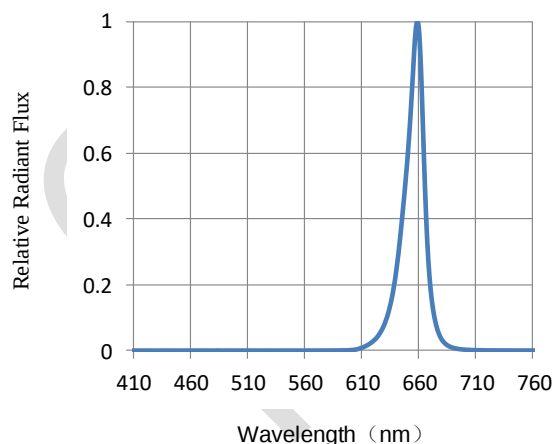
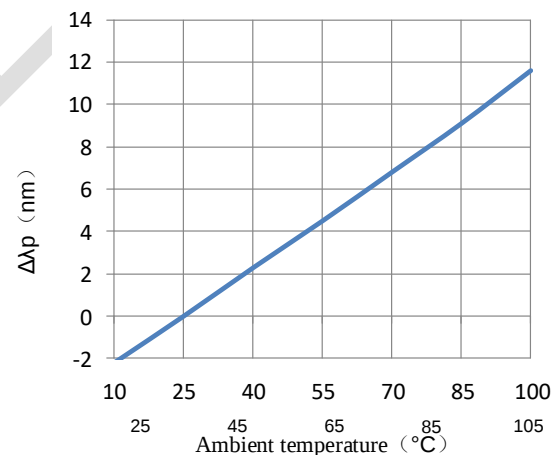


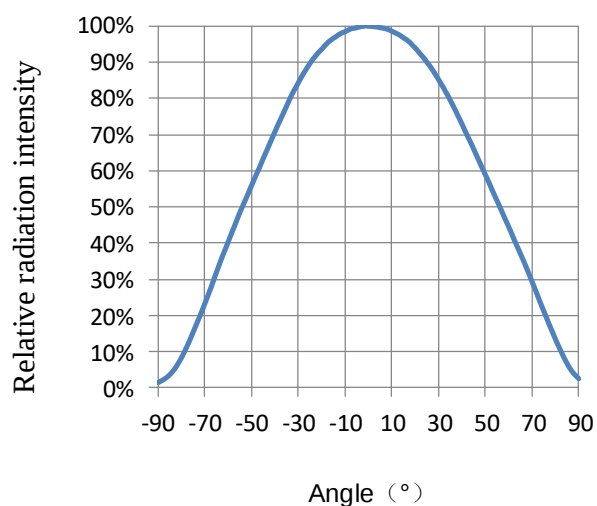
Figure 6. Relative Peak Wavelength vs. Ambient temperature





CHARACTERISTICS CURVE

Figure7. Relative radiation intensity vs. Angle

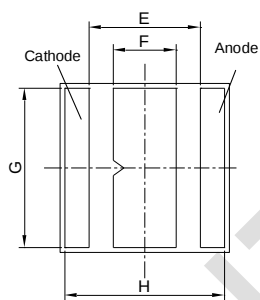
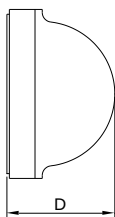
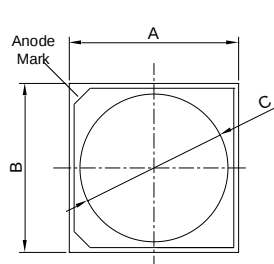




PACKAGE OUTLINE

LCA-3.5x3.5x2.26

UNIT: mm

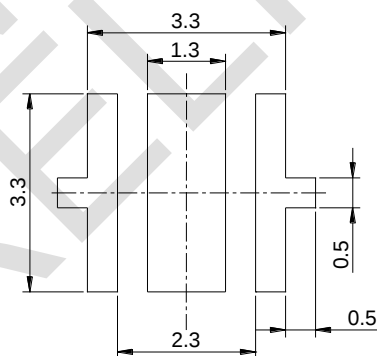


SYMBOL	UNIT: mm		
	MIN.	TYP.	MAX.
A	3.35	3.45	3.55
B	3.35	3.45	3.55
C	2.96	3.06	3.16
D	2.16	2.26	2.36
E	2.20	2.30	2.40
F	1.20	1.30	1.40
G	3.20	3.30	3.40
H	3.20	3.30	3.40

RECOMMENDED SOLDER PAD

LCA-3.5x3.5x2.26

UNIT: mm



Tolerance unless noted: ± 0.1 mm



OPERATE NOTES:

Electrostatic charges may exist in many things. Please take following preventive measures to prevent effectively the electric circuit as a result of the damage which is caused by discharge:

- The operator must put on wrist strap which should be earthed to against electrostatic.
- Equipment cases should be earthed.
- All tools used during assembly, including soldering tools and solder baths, must be earthed.
- LED should be packed in antistatic/conductive containers for transportation.

IMPORTANT NOTICE :

1. The instructions are subject to change without notice!
2. Customers should obtain the latest relevant information before placing orders and should verify that such information is complete and current. Please read the instructions carefully before using our products, including the circuit operation precautions.
3. Our products are consumer electronic products or the other civil electronic products.
4. When using our products, please do not exceed the maximum rating of the products, otherwise the reliability of the whole machine will be affected. There is a certain possibility of failure or malfunction of any semiconductor product under specific conditions. The buyer is responsible for complying with safety standards and taking safety measures when using our products for system design, sample and whole machine manufacturing, so as to avoid potential failure risk that may cause personal injury or property loss.
5. It is strongly recommended to identify the trademark when buying our products. Please contact us if there is any question.
6. Product promotion is endless, our company will wholeheartedly provide customers with better products!
7. Website: <http://www.silan.com.cn>

Part No.: SLW3535HRV1G

Document Type: Datasheet

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Website: <http://www.silan.com.cn>

Rev.: 1.0

Revision History:

1. First release