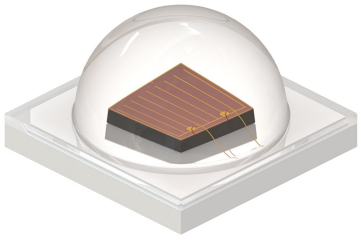
SLW3535DRY1S

DESCRIPTION

SLW3535DRY1S 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.



LCA-3.5x3.5x2.26

FEATURES

- Dimensions: 3.5×3.5×2.26 mm
- Package: Al2O3 ceramic package with silicone lens
- Radiation angle(50%): 120°
- Radiant Flux(350mA): typ. 570mW@25 ºC, 513mW@85ºC
- Radiant Efficiency(350mA):typ. 85.7%@25ºC,79.0%@85ºC
- PPF(350mA): typ. 3.05μmol/s@25 ºC, 2.77μmol/s@85ºC
- PPF/W(350mA): typ. 4.60μmol/J@25ºC, 4.30μmol/J@85ºC

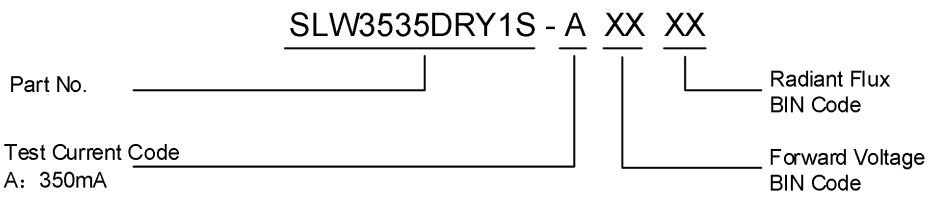
APPLICATIONS

- Architecture
- Horticulture Lighting

ORDERING INFORMATION

Part No.	Package	Marking	Hazardous Substance Control	Packing
SLW3535DRY1STR	LCA-3.5x3.5x2.26	--	Halogen free	Tape & Reel

Part No. INFORMATION



ABSOLUTE MAXIMUM RATINGS (T_{amb}=25°C, UNLESS OTHERWISE SPECIFIED)

PARAMETER	SYMBOL	Rating Values	UNIT
Junction Temperature	T_j	125	ºC
Forward Current	I_F	1000	mA
Forward Pulse Current*	I_{fp}	1500	mA
Power Dissipation*	P_O	2300	mW
Reverse Voltage	V_R	Not designed for reverse operation	
Operating Temperature	T_{opr}	-40 to +105	ºC
Storage Temperature	T_{stg}	-40 to +125	ºC
Soldering Temperature	T_{sol}	260ºC for 10sec	ºC
ESD（HBM）	--	±2000	V

Note:1. The prerequisite for the maximum forward current or the maximum pulse forward current is that the junction temperature of the device is lower than the rated operating junction temperature;
2. Forward Pulse current test conditions：Frequency 10kHz, duty ratio ≤10%;

OPTICAL ELECTRICAL CHARACTERISTICS (T_{amb}=25°C, UNLESS OTHERWISE SPECIFIED)

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Radiant Flux*	Φe	I_F=350mA	500	570	600	mW
Peak Wavelength	λp	I_F=350mA	660	--	675	nm
Spectral Bandwidth(50%)	Δλ	I_F=350mA	--	17.8	--	nm
Forward Voltage*	V_F	I_F=350mA	1.8	1.90	2.2	V
Reverse current	I_R	V_R=5V	--	--	10	μA
Radiantion angle(50%)	$2\theta_{1/2}$	I_F=350mA	--	120	--	Deg
Photosynthetic Photon Flux	PPF	I_F=350mA	--	3.05	--	μmol/s
Photosynthetic Photon Efficiency	PPF/W	I_F=350mA	--	4.60	--	μmol/J
Electrical Thermal Resistance Junction/Soderpoint	Rth_{J-S}	I_F=350mA	--	3.0	--	ºC/W

Note：The tolerance of radiant flux measured value: ±5%;
The tolerance of forward voltage measured value: ±0.1V.

OPTICAL ELECTRICAL CHARACTERISTICS CODE（I_F=350mA，T_{amb}=25°C）

Forward Voltage Code（Unit: V）					
Code	MIN.	MAX.	Code	MIN.	MAX.
A1	1.8	1.9	B1	2.0	2.1
A2	1.9	2.0	B2	2.1	2.2

Code	Radiant Flux Code（ Unit: mW）		PPF*（Unit: μmol/s）		PPF/W*（Unit: μmol/J）
	MIN.	MAX.	MIN.	MAX.	TYP.
3T	500	550	2.68	2.95	4.36
4T	550	600	2.95	3.21	4.60

CHARACTERISTICS CURVE

Figure 1. Relative Radiant Flux vs. Forward Current

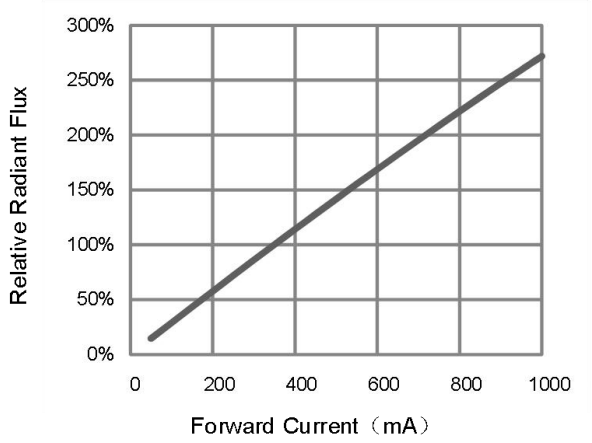


Figure 2. Forward Current vs. Forward Voltage

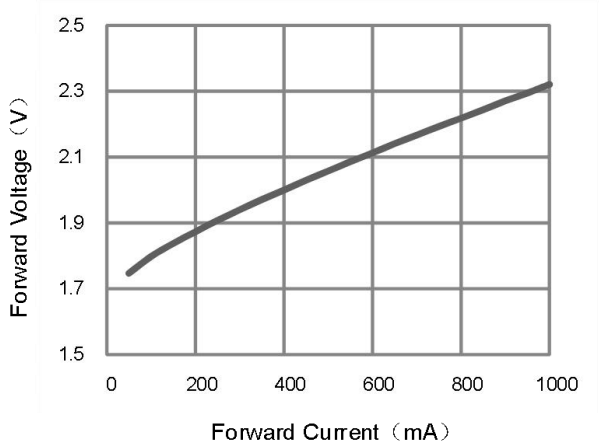


Figure 3. Forward Voltage vs. Temperature

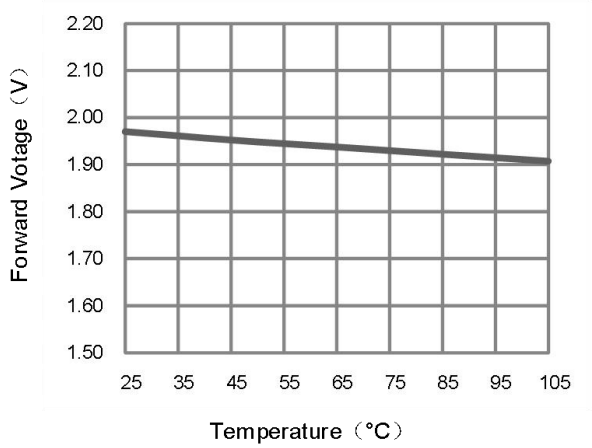


Figure 4. Relative Radiant Flux vs. Temperature

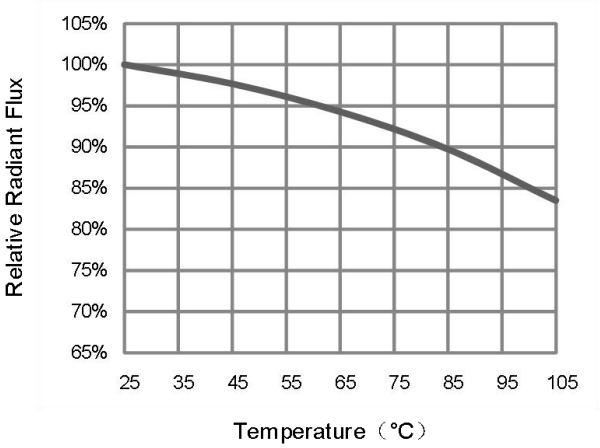


Figure 5. Relative Radiant Flux vs. Wavelength

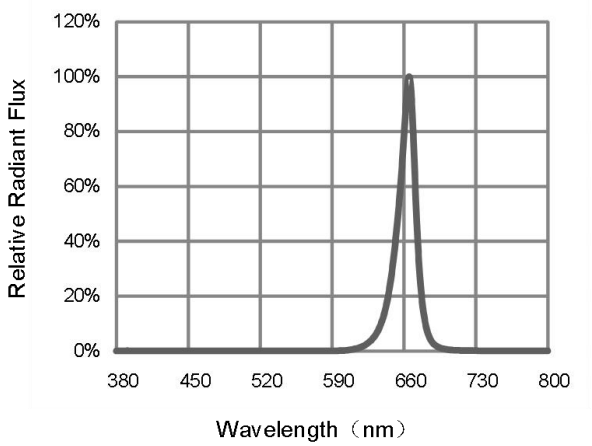
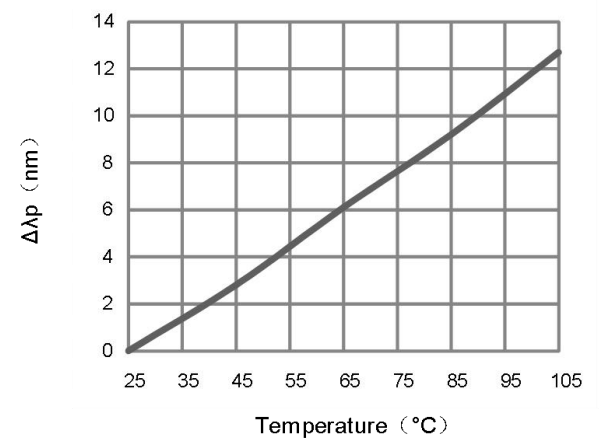


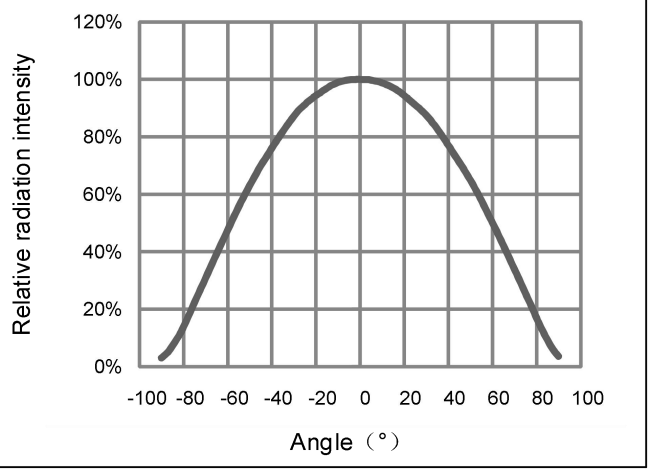
Figure 6. Relative Peak Wavelength vs. Temperature



Note：The temperature curves and the wavelength curve at I_F=350mA，the current curve at T_{amb}=25 ºC

CHARACTERISTICS CURVE(CONTINUED)

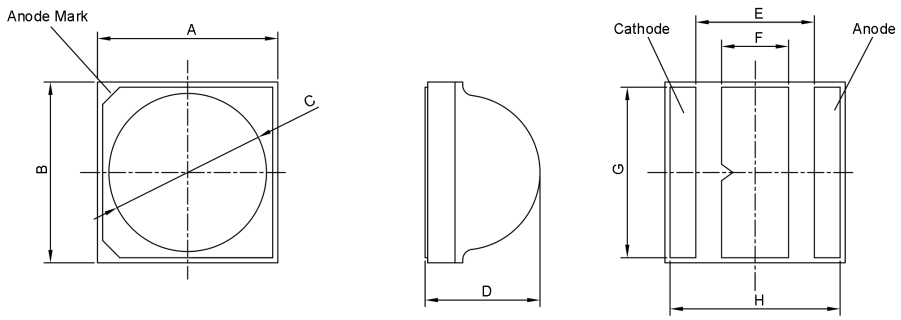
Figure 7. Relative radiation intensity vs. Angle



Note：I_F=350mA，T_{amb}=25 ºC

PACKAGE OUTLINE

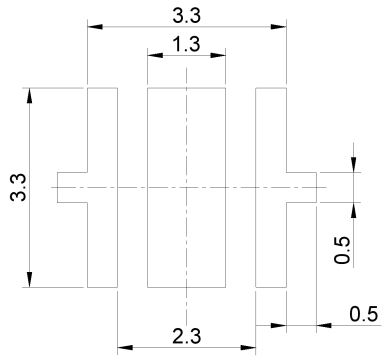
LCA-3.5x3.5x2.26 **UNIT：mm**



SYMBOL	MILLIMETER		
	MIN	NOM	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



DEVICES 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.
- Devices should be packed in antistatic/conductive containers for transportation.

Important notice :

1. Silan reserves the right to make changes of this instruction without notice.
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Rev.: 1.2

Revision History:

1. Update features
2. Update Forward Voltage Code

Rev.: 1.1

Revision History:

1. Update parameters

Rev.: 1.0

Revision History:

1. First release