

Technical Data Sheet

5.0*5.0mm Square Type LED Lamps

583SDRD/S530-A3/TR1(A)

Features :

- Long life feature.
- Low power consumption.
- High emitting efficiency.
- Most radial lead plastic LED lamp available packed in ape and reel.
- Reel package simplifies handling and teating.
- Pb free
- The product itself will remain within RoHS compliant version



Descriptions :

- 1.The 583 lamps are made with AlGaInP diodes, which emit Deep-Red
- 2.Automatically insertable with radial lead insertion equipment.

Applications :

- Audio equipment
- Monitor
- Sign board
- Computer peripheral
- Air condition
- Home appliance
- Satellite receiver
- Burglar alarm
- Stop light

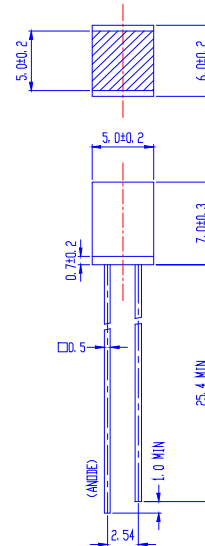
PART NO.	Chip		Lens Color
	Material	Emitted Color	
583SDRD/S530-A3	AlGaInP	Deep-Red	Red Diffused

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Package Dimensions



■ Notes:

- 1.All dimensions are in millimeters, tolerance is 0.25mm except being specified
- 2.Lead spacing is measured where the lead emerge from the package
- 3.Protuded resin under flange is 1.5 mm(0.059") Max LED.
- 4.The signle LED picture which is after taping.

■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	IF	25	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	mW
Reverse Voltage	VR	5	V

Note: *1:Soldering time ≤ 5 seconds.



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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 20 mA	/	2.0	2.4	V
Reverse Current	I _R	V _R = 5 V	/	/	10	μA
Luminous Intensity	I _v	I _F = 20 mA	4	8	/	mcd
Viewing Angle	2 θ 1/2	I _F = 20 mA	/	170	/	deg
Peak Wavelength	λ _p	I _F = 20 mA	/	650	/	nm
Dominant Wavelength	λ _d	I _F = 20 mA	/	639	/	nm
Spectrum Radiation Bandwidth	△ λ	I _F = 20 mA	/	20	/	nm

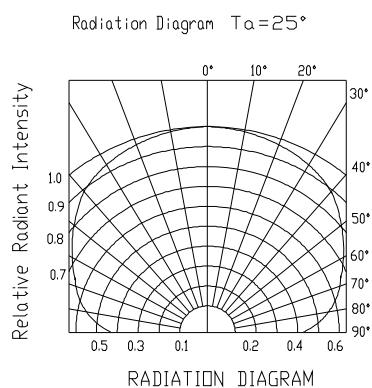
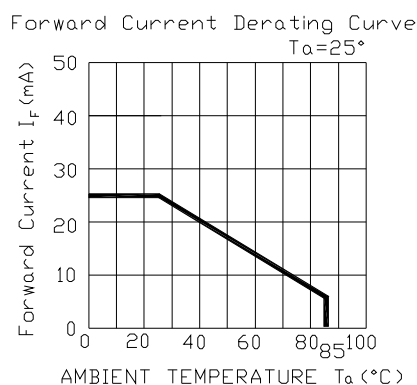
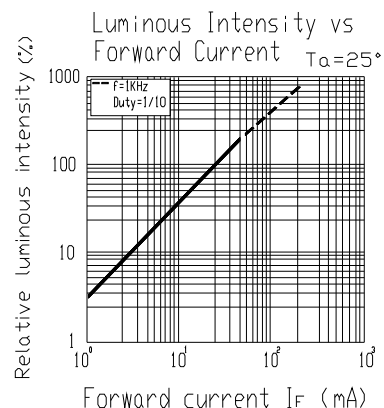
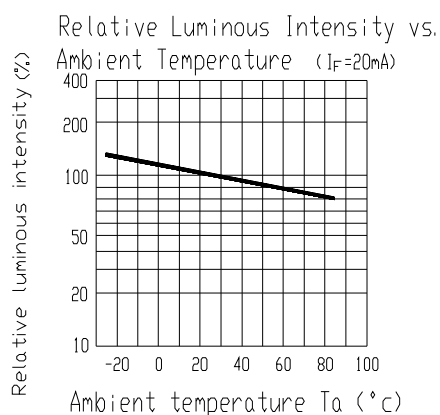
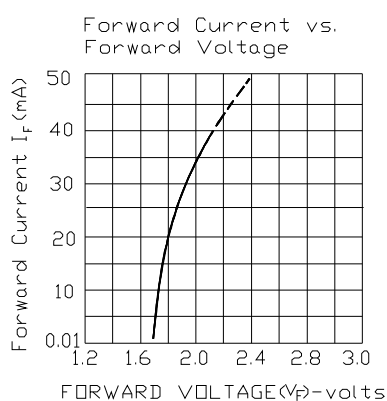
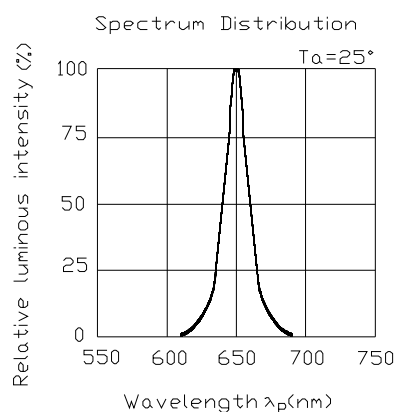
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Typical Electro-Optical Characteristic Curves:

(SDR)

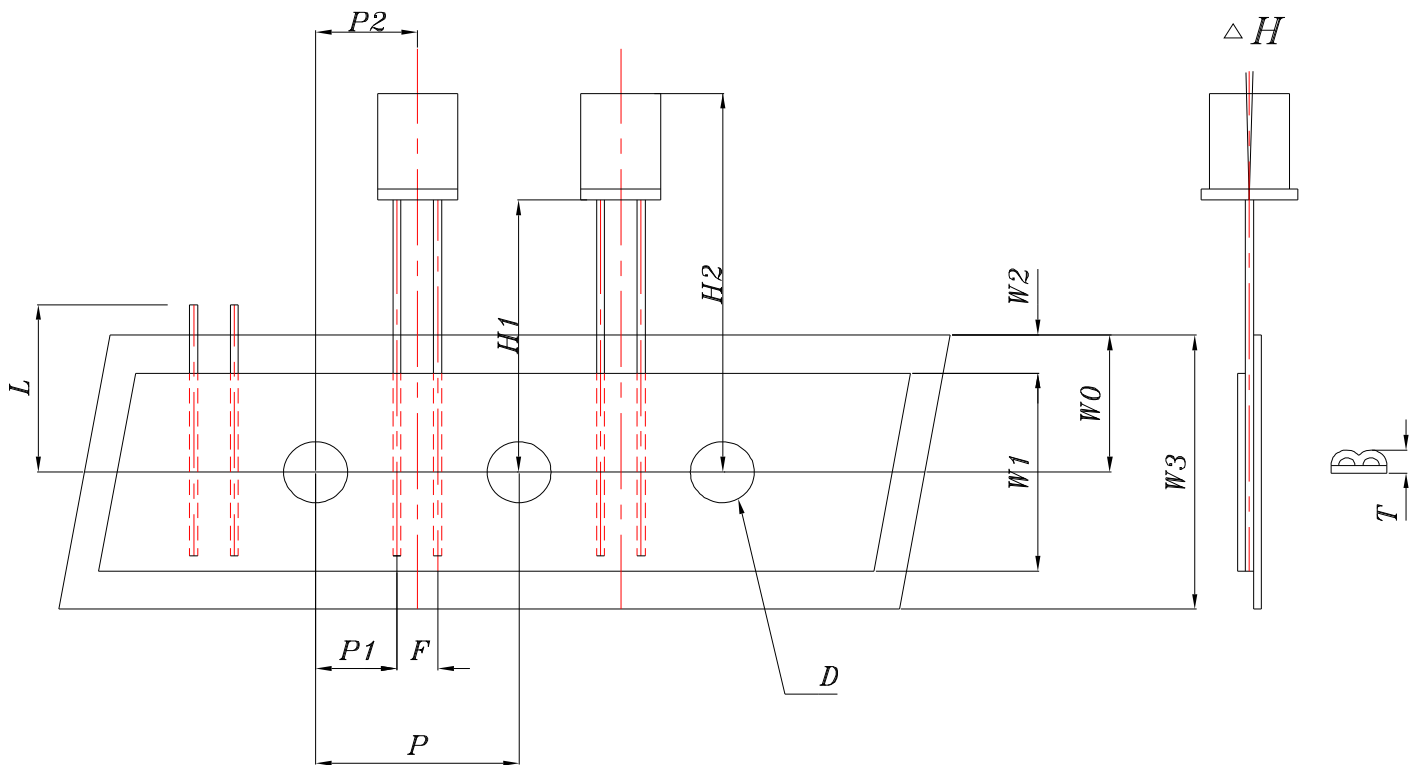


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Taping Dimensions



■ Notes:

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Dimensions symbol linformations

(Ta=25°C)

Symbol Items	Sybmol	Specifications		
		Avg.		Tolerance
		mm	Inch	(mm)
Tape Feed Hole Diameter	D	4.0	0.157	±0.2
Component Lead Pitch	F	2.54	0.100	+0.8/-0.2
Front-to-Read Deflection	△H	0°	0	±5°
Feed Hole to Button of Compoent	H1	18.50	0.728	±1.0
Feed Hole to Ocerall Compoent Height	H2	25.50	1.004	±1.0
Lead Length after Component Removall	L	11.00	0.433	MAX
Feed Hole Pitch	P	12.70	0.500	±0.3
Lead Location	P1	5.08	0.200	±0.7
Center of Compoent Location	P2	6.35	0.250	±1.2
Overall Taped Package Thickness	T	1.42	0.056	MAX
Feed Hole Location	W0	9.00	0.354	±0.5
Adhesive Tape Width	W1	13.00	0.512	±0.5
Adhesive Tape Position	W2	2.00	0.079	MAX
Tape Width	W3	18.00	0.709	±0.75

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■ Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below.

Confidence level : 97%

LTPD : 3%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	10 SEC	76 PCS	$I_v \leq I_{vt} * 0.5$ or $V_f \geq U$ or $V_f \leq L$	0/1
2	Temperature Cycle	H : +100°C 15min ↓ 5 min L : -40°C 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H : +100°C 5min ↓ 10 sec L : -10°C 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP : -40°C	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP : 25°C I _F = 20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85°C / 85% RH	1000 HRS	76 PCS		0/1

Note : I_{vt} : To test I_v value of the chip before the reliability test
I_v : The test value of the chip that has completed the reliability test
U : Upper Specification Limit
L : Lower Specification Limit



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Packing Quantity Specification

1. 2000PCS/1Box
2. 10Boxes/1Carton

Label Form Specification

	EVERLIGHT	
CPN: P/N:		
583SDRD/S530-A3/TR1(A)		
QTY:	CAT:	
	HUE:	
LOT NO:	REF:	
Reference:		

CPN: Customer' s Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Dominant Wavelength

REF: Reference

LOT No: Lot Number

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don' t reproduce or cause anyone to reproduce them without EVERLIGHT' s consent.

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