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DATA SHEET

PART NO.: L-SB1R12PD1D1-ZGY

REV: A / 1

CUSTOMER'S APPROVAL: _____

DCC: _____

DRAWING NO.: DS-G-21-19-0005

DATE: 2019-07-18

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SURFACE MOUNT DEVICE LED

Part No.: L-SB1R12PD1D1-ZGY

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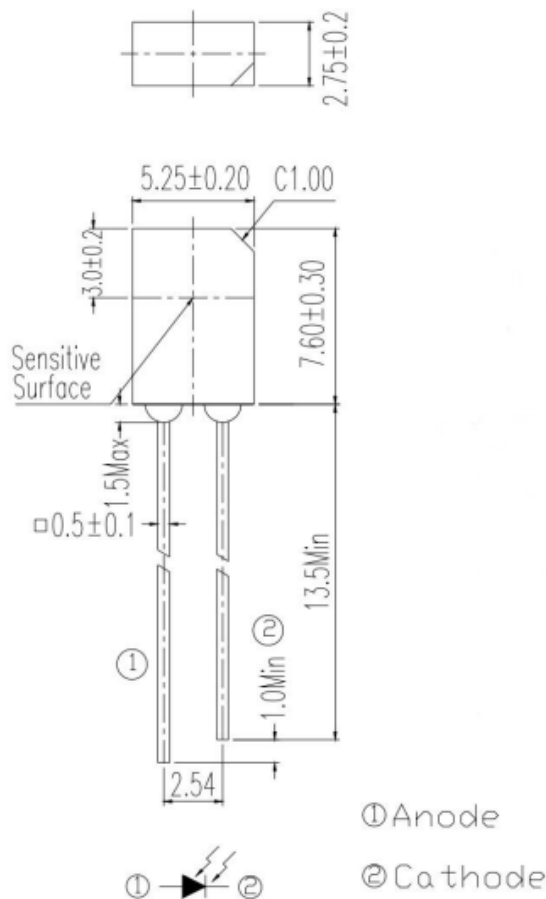
■ Descriptions

This is a high speed and high sensitive PIN photodiode in a standard plastic package. The device is matched to infrared emitting diode.

■ Features

1. Fast response time
2. High photo sensitivity
3. Pb free
4. This product itself will remain within RoHS compliant version. Compliance with EU REACH
5. Compliance Halogen Free. (Br < 900 ppm , Cl < 900ppm , Br+Cl < 1500ppm)

■ Package Dimensions



Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions ± 0.25 mm



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Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	32	V
Power Dissipation at(or below) 25 Free Air Temperature	Pd	150	mW
Operating Temperature	Topr	-25~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature (2mm form body for 5 seconds)	Tsol	260	°C

Electrical - Optical Characteristics (Ta =25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Open-Circuit Voltage	Voc	Ee=5mW/cm2 λp=940nm	--	0.35	--	V
Short- Circuit Current	Isc	Ee=1mW/cm2 λp=940nm	--	18	--	μA
Reverse Light Current	IL	Ee=1mW/cm2 λp=940nm VR=5V	10.2	18	--	μA
Reverse Dark Current	ID	Ee=0mW/cm2 VR=10V	--	5	30	nA
Reverse Breakdown Voltage	BV	Ee=0mW/cm2 IR=100μA	32	170	--	V
Rise Time	tr	VR=10V RL=1000Ω	--	50	--	nS
Fall Time	tf	VR=10V RL=1000Ω	--	50	--	nS
Total Capacitance	Ct	Ee=0mW/cm2 VR=5V f=1MHz	--	25	--	pF
Rang Of Spectral Bandwidth	λ0.5	--	840	--	1100	nm
Wavelength of Peak Sensitivity	λP	--	--	940	--	nm

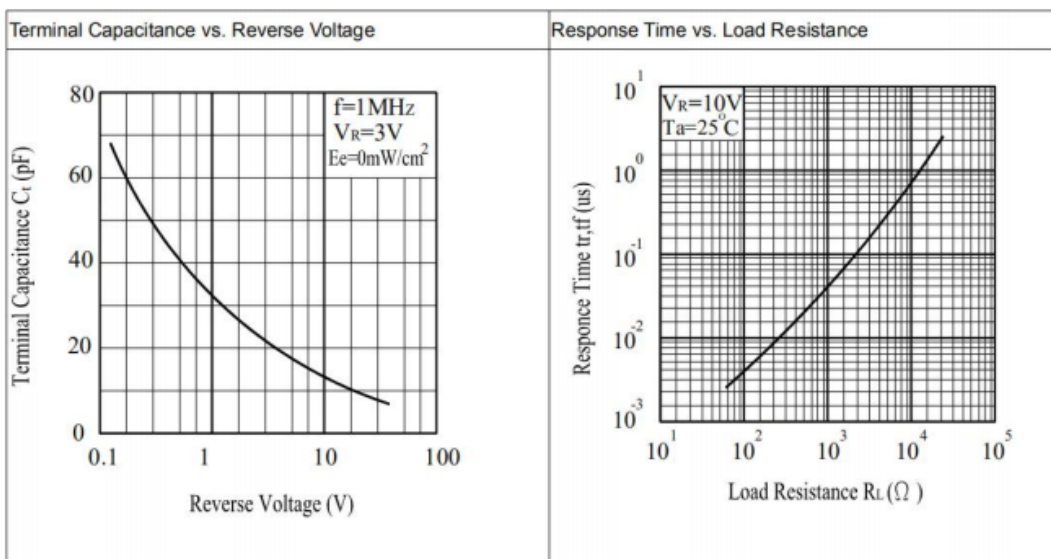
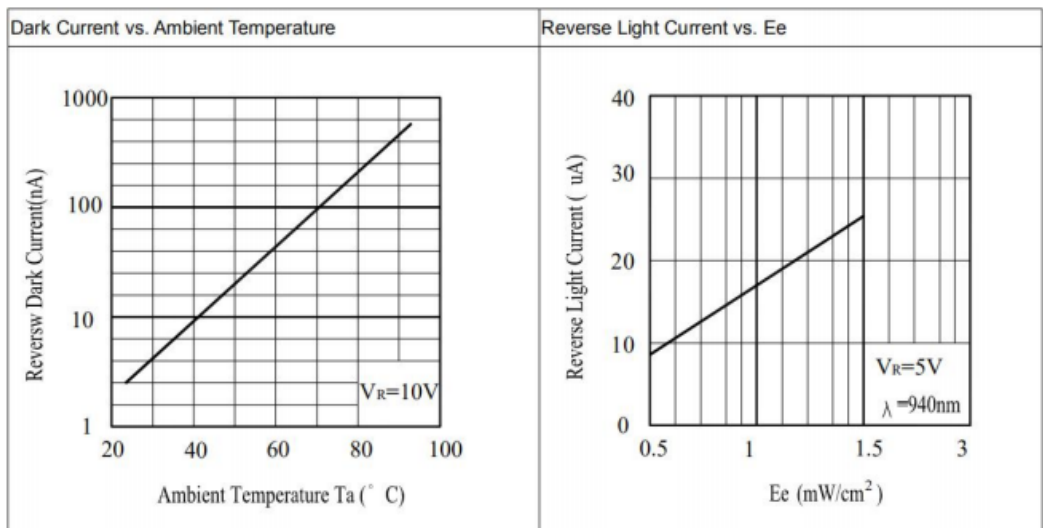
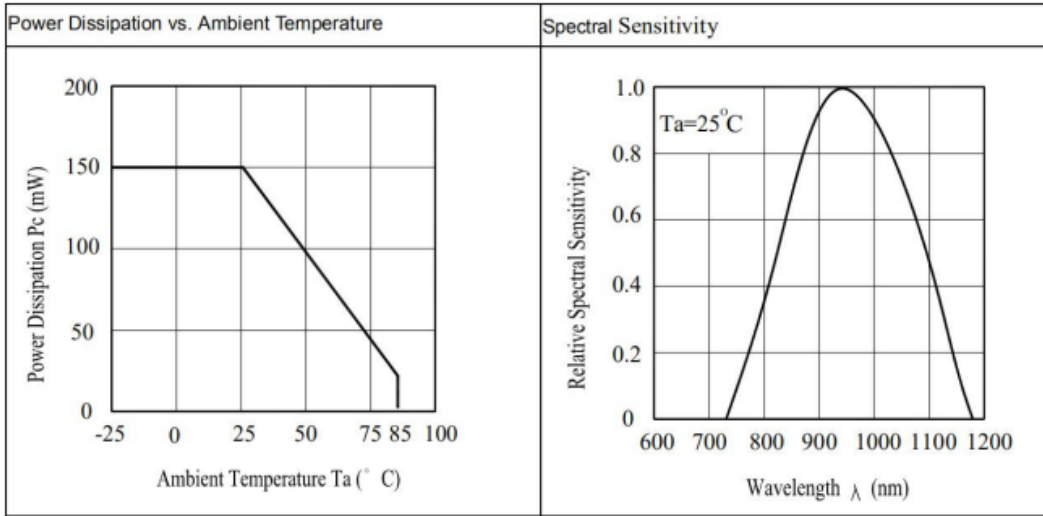


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Typical electro-optical characteristics curves





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Rank

Parameter	Symbol	Condition	Min.	Max.	Unit
BIN1	I_L	Ee=1mW/cm2 $\lambda_p=940nm$ VR=5V	10.2	16.5	μA
BIN2	I_L	Ee=1mW/cm2 $\lambda_p=940nm$ VR=5V	13.5	22.0	μA
BIN3	I_L	Ee=1mW/cm2 $\lambda_p=940nm$ VR=5V	18.0	27.5	μA
BIN4	I_L	Ee=1mW/cm2 $\lambda_p=940nm$ VR=5V	22.5	33.0	μA

Packing Quantity Specification:

1. 500PCS/1Bags, 6Bags/1Box
2. 10Boxes/1Carton

Notes:

- 1 · Above specification may be changed without notice. CHAULIGHT will reserve authority on material change for above specification.
- 2 · When using this product, please observe the absolute maximum ratings and the instruction for using outlined in these specification sheets. CHAULIGHT 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.
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