SUNRISE LED

TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL： 5243IIRB-H

Features

- Fast response time
- High photo sensitivity
- Small junction capacitance
- Pb free

Descriptions

5243IIRB-H is a high speed and high sensitive PIN photodiode in a standard 5□plastic package.
The device is matched to infrared emitting diode.

Applications

- Infrared applied system.
- Counters and sorters
- Encoders
- Floppy disk drive.
- Optoelectronic switch
- Video camera, Tape and card readers
- Position sensors

Device Selection Guide

LED Part No.	Chip	Lens Color
	Material	Black
5243IIRB-H	Silicon	

Package Dimensions

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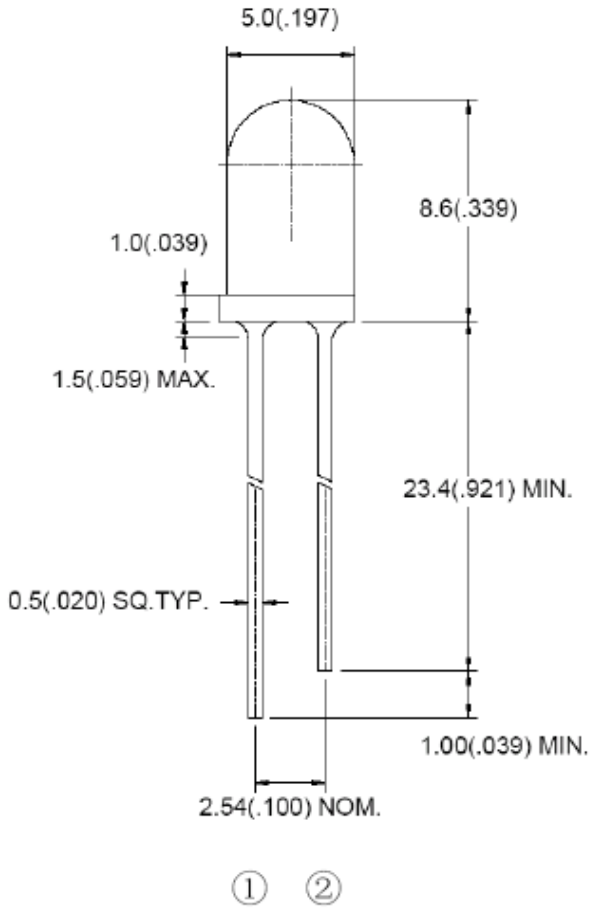

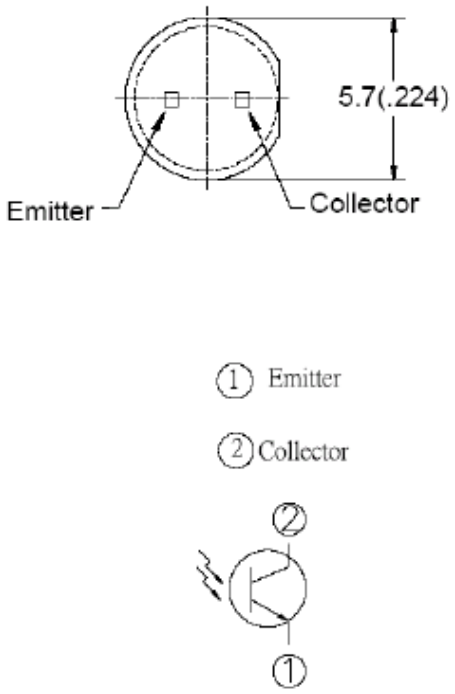

Notes:

1.All dimensions are in millimeters

2.Tolerances unless dimensions ±0.1mm

Absolute Maximum Rating (T_a=25□)

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Parameter	Symbol	Absolute Maximum Rating	Unit
Reverse Voltage	V_R	30	V
Power Dissipation	P_D	75	mW
Operating Temperature	Topr	-25～ +85	℃
Storage Temperature	Tstg	-40～ +85	℃
Soldering Heat (5s)	Tsol	260	℃

Notes: *1:Soldering time□5 seconds.

Electro-Optical Characteristics (T_a=25℃)

Parameter	Symbol	Min.	TYP.	Max.	Unit	Condition
Rang Of Spectral Bandwidth	λ0.5	840	---	1100	nm	
Wavelength of Peak Sensitivity	λP		940		nm	
Collector-Emitter Breakdown Voltage	VBR CEO	30	---	---	V	IC=100μA IB=0
Emitter-Collector Breakdown Voltage	VBR ECO	5	---	---	V	IE=100μA IB=0
Collector-Emitter Saturation Voltage	VCE (SAT)	---	---	0.4	V	IC=0.1mA H=2.5mW/c㎡
Collector Dark Current	ID	---	---	100	nA	VCE=10V H=0mW/c㎡
Rise Time (10% to 90%)	TR	---	15	---	μs	VCE=5V IC=1mA
Fall Time (90% to 10%)	TF	---	15	---	μs	RL=100Ω
On State Collector Current	I(ON)	0.7	2.5	---	mA	VCE=5V Ee=1mW/c㎡ λ=940nm
View Angle	2θ1/2	---	45	---	deg	IF=20mA λ=940nm

Typical Electro-Optical Characteristics Curves

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Fig.1Collector Power Dissipation vs. Ambient Temperature

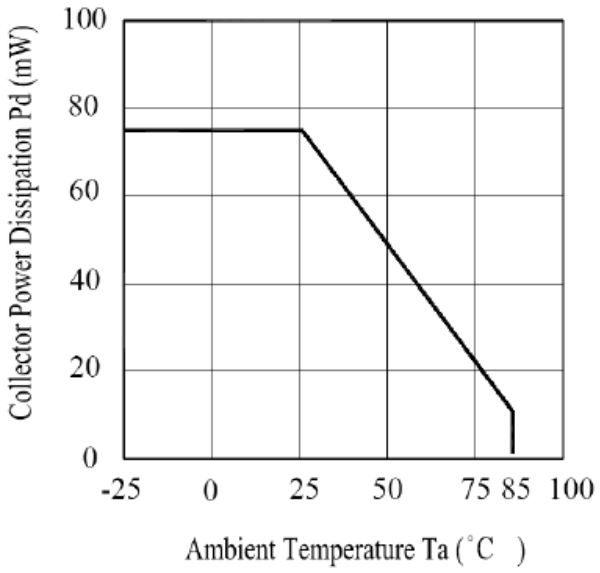


Fig.2 Spectral Sensitivity

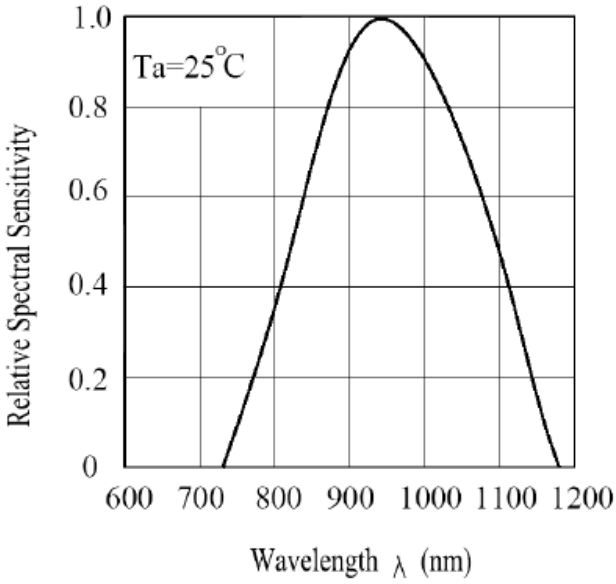


Fig.3 Relative Collector Current vs. Ambient Temperature

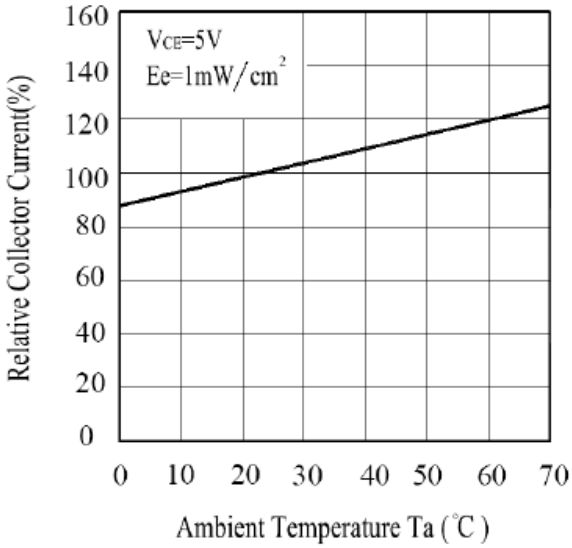
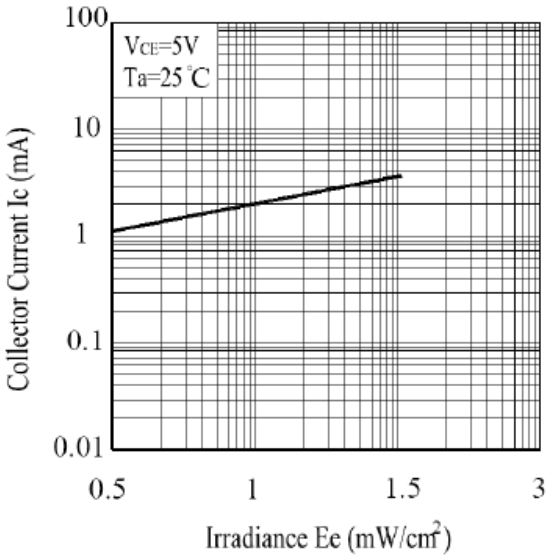


Fig.4 Collector Current vs. Irradiance



Typical Electro-Optical Characteristics Curves

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Fig.5 Collector Dark Current vs. Ambient Temperature

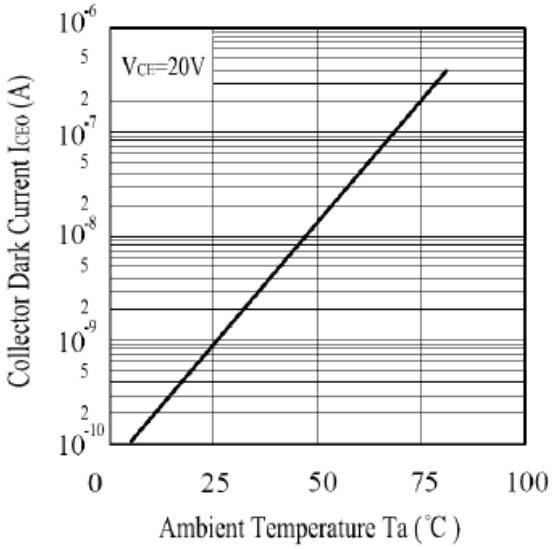
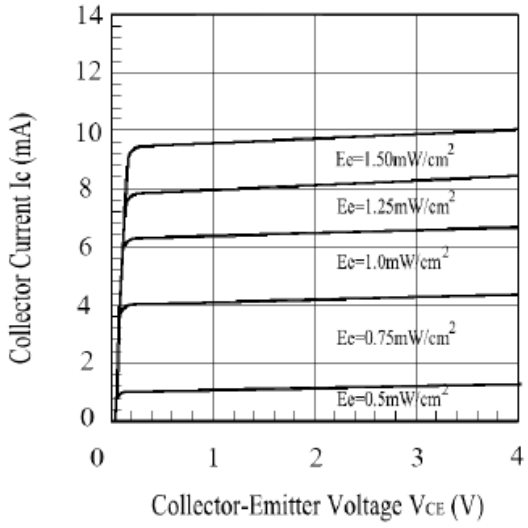


Fig.6 Collector Current vs. Collector-Emitter Voltage



Notes

1. Above specification may be changed without notice. SUNRISE LED 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. SUNRISE LED 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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