DATASHEET

Side Face Silicon Phototransistor
EAPLP04RRAA2

Features

- Fast response time
- High photo sensitivity
- Pb free
- This product itself will remain within RoHS compliant version.

Description

- EAPLP04RRAA2 is a high speed and high sensitive dual phototransistor molded in a black plastic package with plat side view.
- The device is spectrally matched with IR emitters.

Applications

- Mouse
- Optoelectronic Switch
- Photo Interrupter

Device Selection Guide

Chip Materials	Lens Color
Si	Black

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector-Voltage	V_{ECO}	5	V
Collector Current	I_C	20	mA
Operating Temperature	Topr	-25 ~ +85℃	℃
Storage Temperature	Tstg	-40 ~ +85℃	℃
Lead Soldering Temperature(*1)	Tsol	260	℃
Power Dissipation at (or below) 25℃ Free Air Temperature	P_D	75	mW

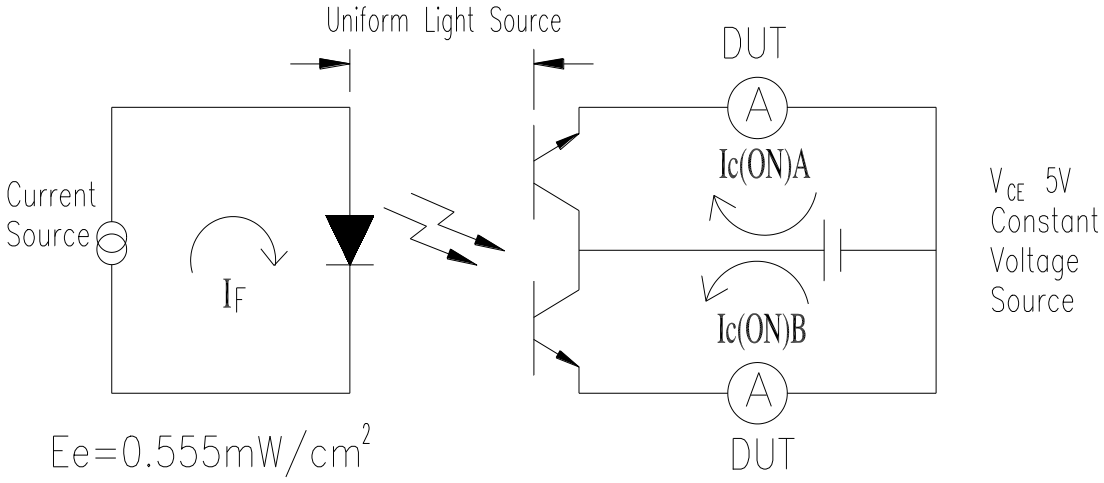
Notes: *1:Soldering time≦5 seconds.

Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector – Emitter Breakdown Voltage	BV_{CEO}	I_C=100μA Ee=0mW/cm^2	30	---	---	V
Emitter-Collector Breakdown Voltage	BV_{ECO}	I_E=100μA Ee=0mW/cm^2	5	---	---	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=2mA Ee=1mW/cm^2	---	---	0.4	V
Rise Time	t_r	V_{CE}=5V I_C=1mA R_L =1000Ω	---	15	---	μS
Fall Time	t_f		---	15	---	
Collector Dark Current	I_{CEO}	Ee=0mW/cm^2 V_{CE}=20V	---	---	100	nA
On State Collector Current	$I_{C(on)}$	V_{CE}=5V, Ee=0.555mW/cm^2	330	---	703	μA
Wavelength of Peak Sensitivity	λp	---	---	940	---	nm
Rang of Spectral Bandwidth	$\lambda_{0.5}$	---	760	---	1100	nm

Test Method For On State Collector Current :

Condition : Ee=0.555mW/cm^2 , V_{CE}=5V
Test Item : Collector Current [$I_{C(on)}$]
Unit : μA

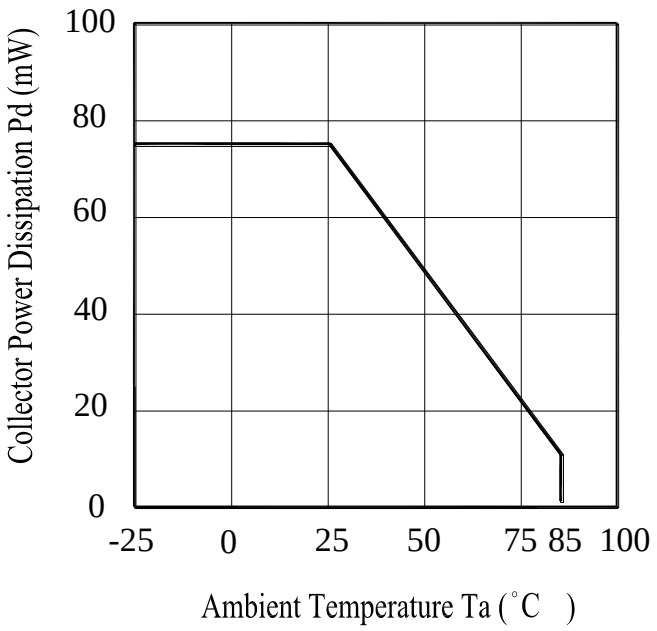


To Distinguish Intensity:
Condition:V_{CE}:5V Ee:0.555mW/cm^2
Ranks

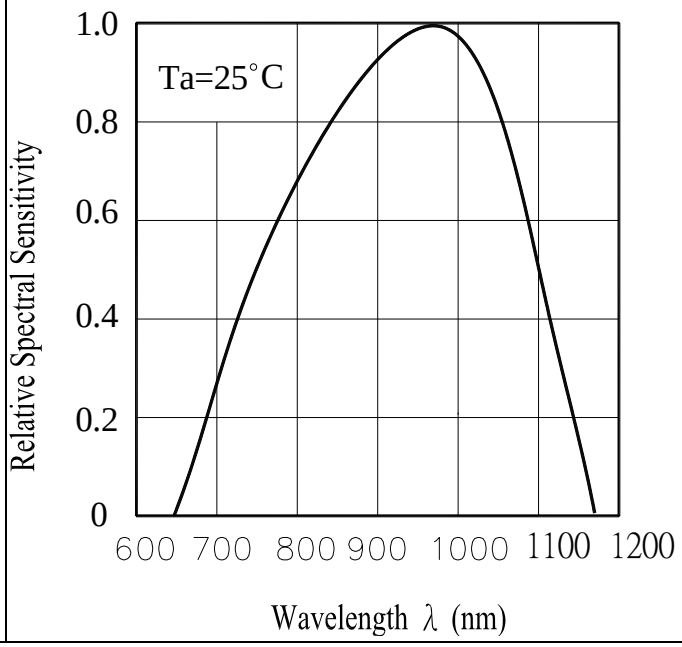
Ranks	Symbol	Min	Typ	Max	Unit	Test Condition
A4	$I_{C(ON)}$	330	---	461	μA	Ee=0.555mW/cm^2, V_{CE}=5V
A5	$I_{C(ON)}$	398	---	544	μA	Ee=0.555mW/cm^2, V_{CE}=5V
A6	$I_{C(ON}$	468	---	625	μA	Ee=0.555mW/cm^2, V_{CE}=5V
A7	$I_{C(ON}$	536	---	703	μA	Ee=0.555mW/cm^2, V_{CE}=5V

Typical Electro-Optical Characteristics Curves

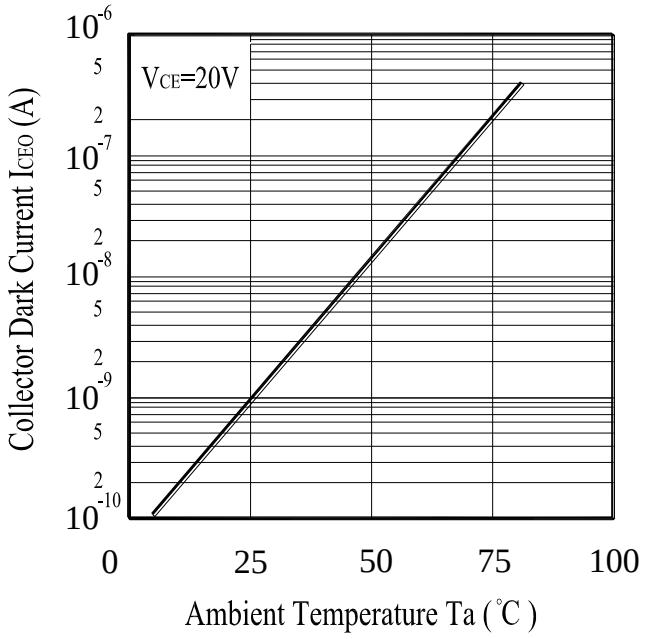
Power Dissipation vs. Ambient Temperature



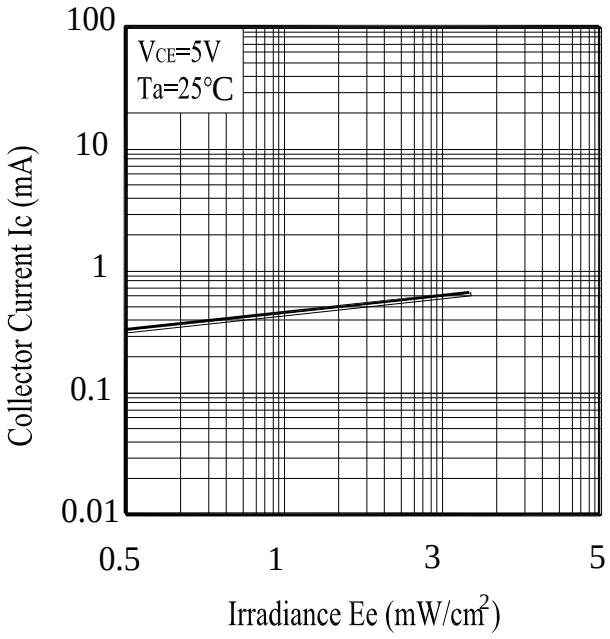
Spectral Sensitivity



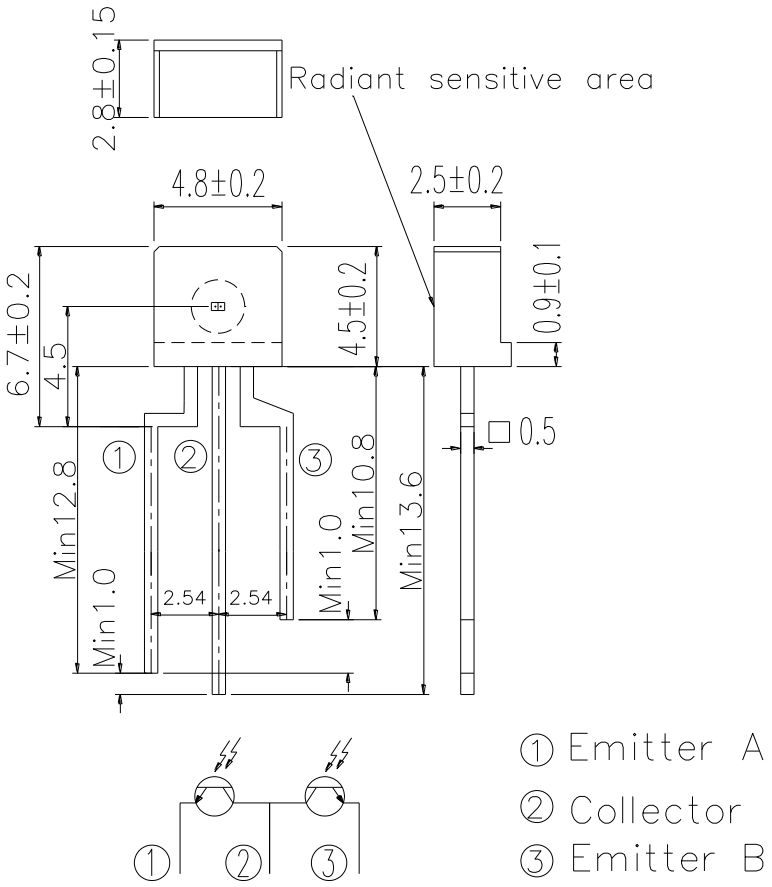
Dark Current vs. Ambient Temperature



Collector Current vs. Irradiance Ee



Package Dimension

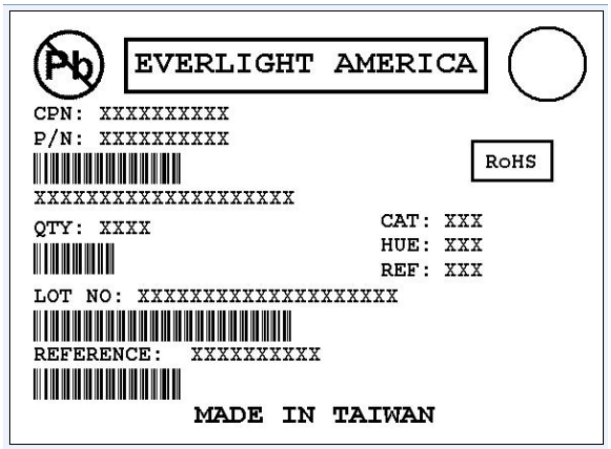


Note: Tolerances unless dimensions ±0.25mm

Packing Quantity Specification

1. 1000PCS/1Bag,6Bag/1Box
2. 10Boxes/1Carton

Label Form Specification



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

Notes

1. Above specification may be changed without notice. EVERLIGHT Americas 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 Americas 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 Americas corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's Americas consent.