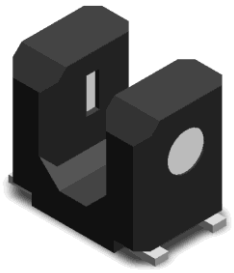
DATASHEET

EAITRAA1

Features

- Gap：1.1 mm
- Slit：0.3 mm
- Compact SMD Package
- Pb/Halogens free
- RoHS compliant



Description

- EAITRAA1 is an ultra small outline photo-interrupter, integrating both infrared emitter and silicon phototransistor detector with plastic molding housing.

Applications

- Printer
- Digital Camera
- Optical switch

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Device No.	Chip Material
IR	AlGaAs
PT	Silicon

Absolute Maximum Ratings (Ta=25℃)

Parameter		Symbol	Ratings	Unit
Input	Power Dissipation at(or below) 25℃ Free Air Temperature	Pd	75	mW
	Reverse Voltage	V_R	5	V
	Forward Current	I_F	50	mA
	Peak Forward Current (*1) Pulse width ≦100μs, Duty cycle=1%	I_{FP}	1	A
Output	Collector Power Dissipation	P_C	75	mW
	Collector Current	I_C	20	mA
	Collector-Emitter Voltage	B V_{CEO}	35	V
	Emitter-Collector Voltage	B V_{ECO}	6	V
Operating Temperature		Topr	-40~+85	℃
Storage Temperature		Tstg	-40~+100	℃
Lead Soldering Temperature (*2) (1/16 inch form body for 5 seconds)		Tsol	260	℃

＊1. Pulse width t_w =100μs , Period T=10ms　　＊2 t ≦5sec

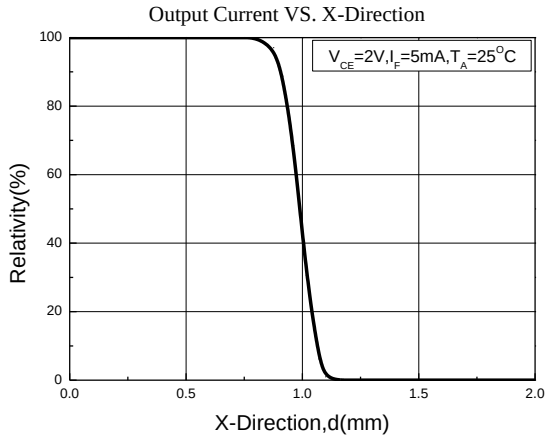
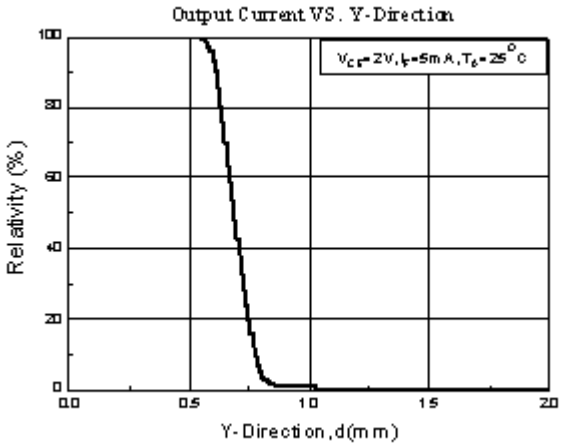
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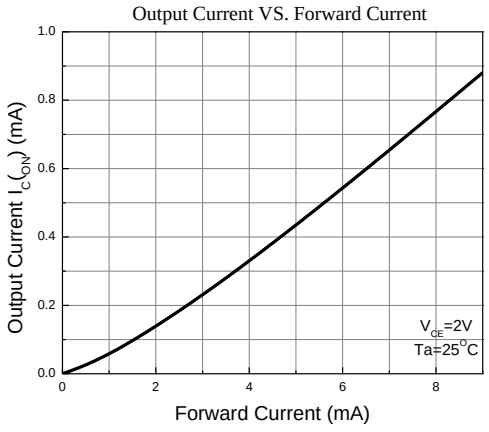
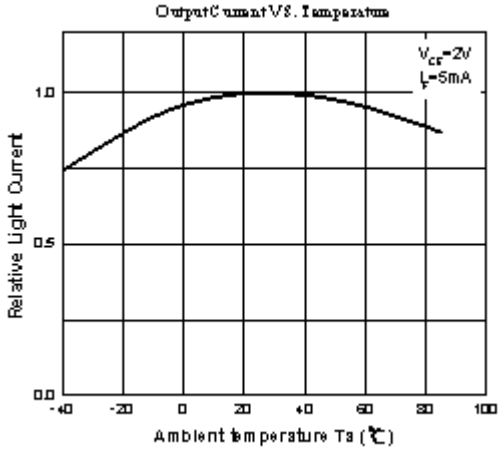
Electro-Optical Characteristics (Ta=25℃)

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions
Input	Forward Voltage	V_F	---	1.2	1.4	V	I_F=20mA
	Reverse Current	I_R	---	---	10	μA	V_R=6V
	Peak Wavelength	λ_P	---	940	---	nm	I_F=10mA
Output	Dark C urrent	I_{CEO}	---	---	100	nA	V_{CE}=20V
	C-E Saturation Voltage	V_{CE}(sat)	---	---	0.4	V	I_C=0.05mA I_F=10mA
Transfer Characteristics	Collect Current	I_C(ON)	150	---	1000	μA	V_{CE}=2V I_F=5mA
	Rise time	t_r	---	9	---	μs	V_{CE}=5V I_C=1mA R_L=1KΩ
	Fall time	t_f	---	8	---	μs	

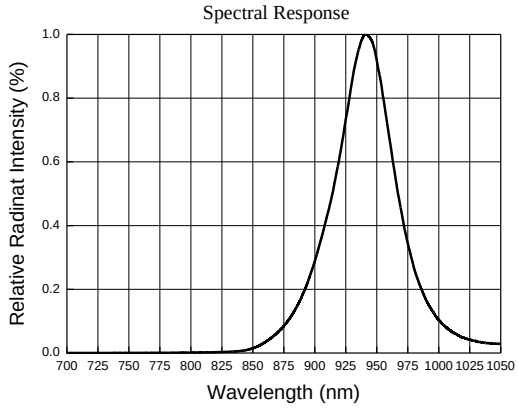
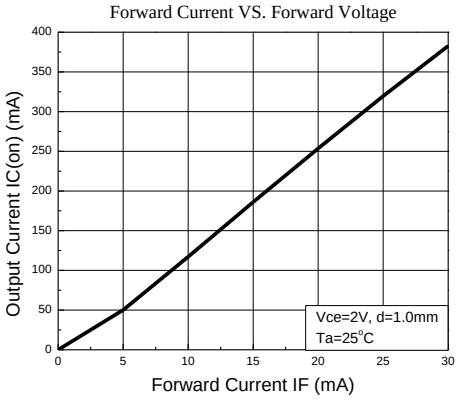
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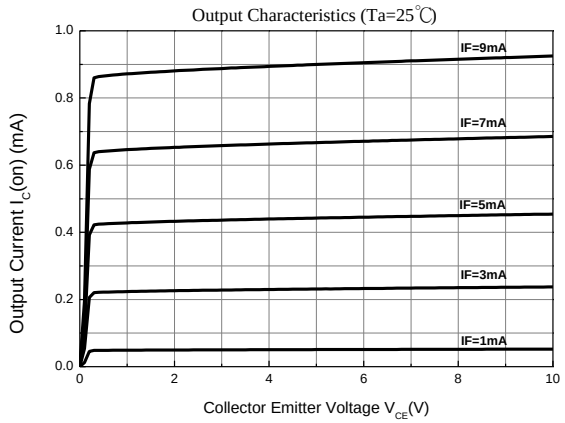
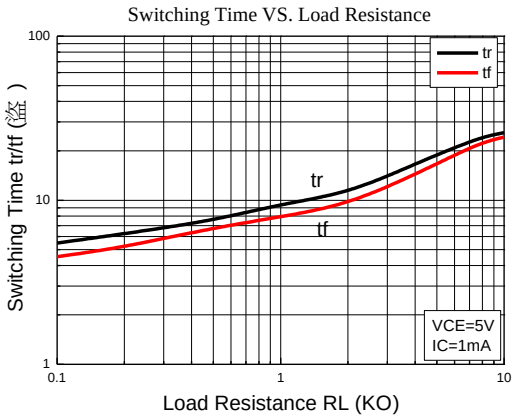
Typical Electrical/Optical/Characteristics Curves for ITR

Collector current vs. forward current.	Relative output vs. ambient temperture
	

Forward current vs. forward voltage	Output characteristics
	

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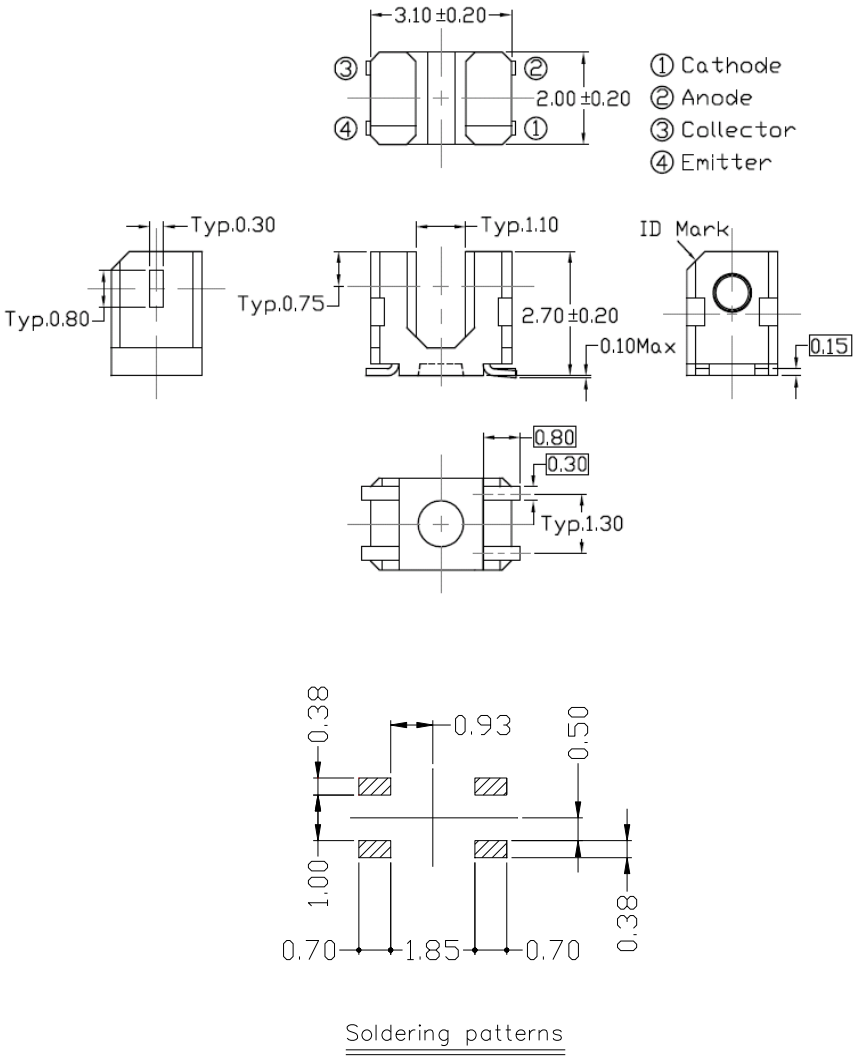
Spectral Distribution	Spectral Distribution
	

Spectral Distribution	Spectral Distribution
	

c

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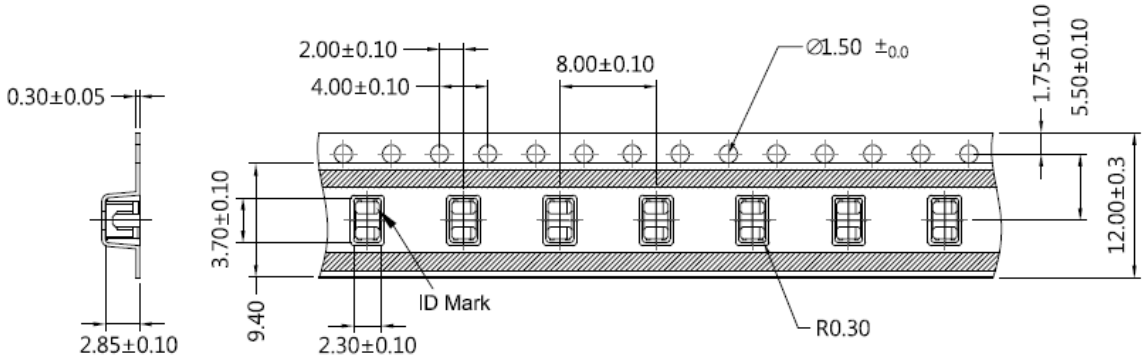
Package Dimension



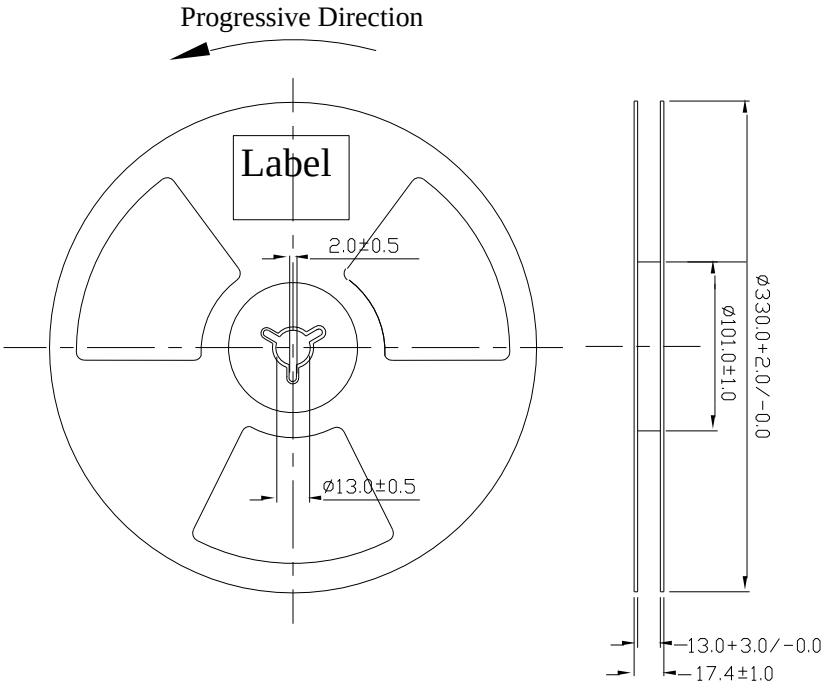
Notes: 1. All dimensions are in millimeters
2. Tolerances: ±0.2mm

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Taping Dimension



Reel Dimensions



Packing Quantity Specification

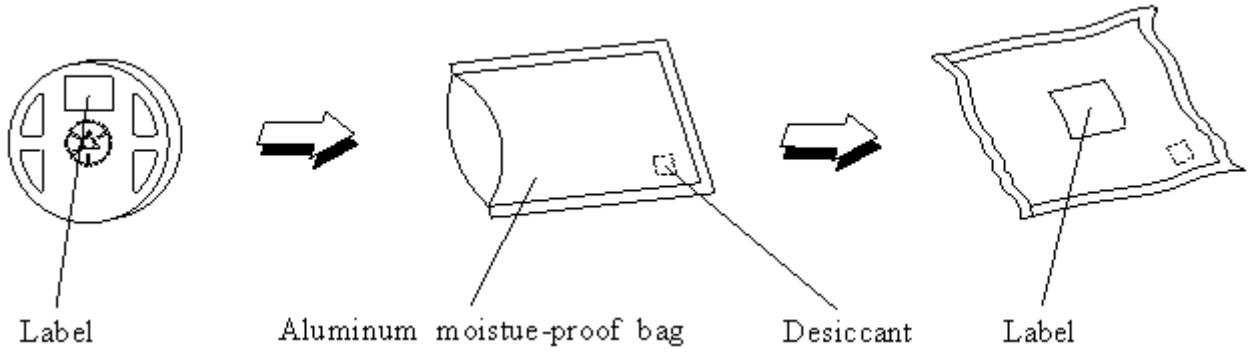
1. 3000pcs / 1 Reel
2.13 Reels (39Kpcs) / 1 Carton

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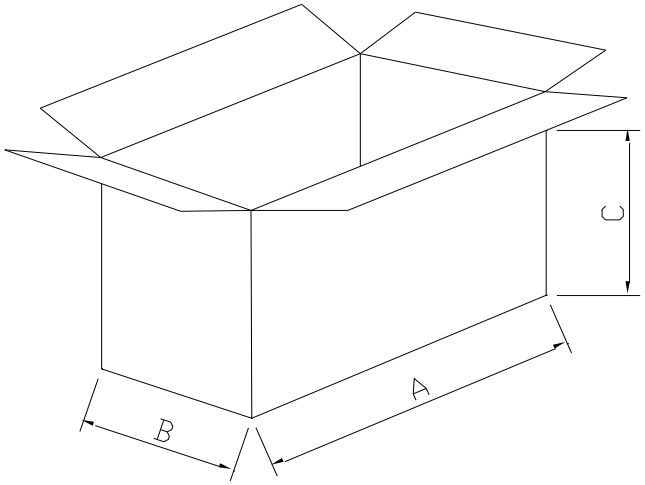
Moisture Resistant Packaging

Aluminum Moistue-Proof Bag Dimension : 400mm*375mm

Vacuum Package

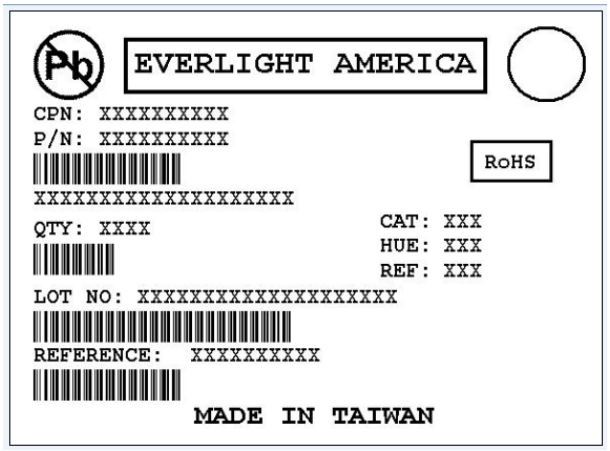


Outer Carton Dimension : 409mm(A)*245mm(B)*360mm(C)



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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.
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