

EAILP05OLAA0

5mm Infrared LED , T-1 3/4



Features

- High reliability
- High radiant intensity
- Peak wavelength $\lambda_p=940\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- Pb free
- The product itself will remain within RoHS compliant version.

Descriptions

- EVERLIGHT'S Infrared Emitting Diode (EAILP05OLAA0) is a high intensity diode , molded in a water clear plastic package.
- The device is spectrally matched with phototransistor , photodiode and infrared receiver module.

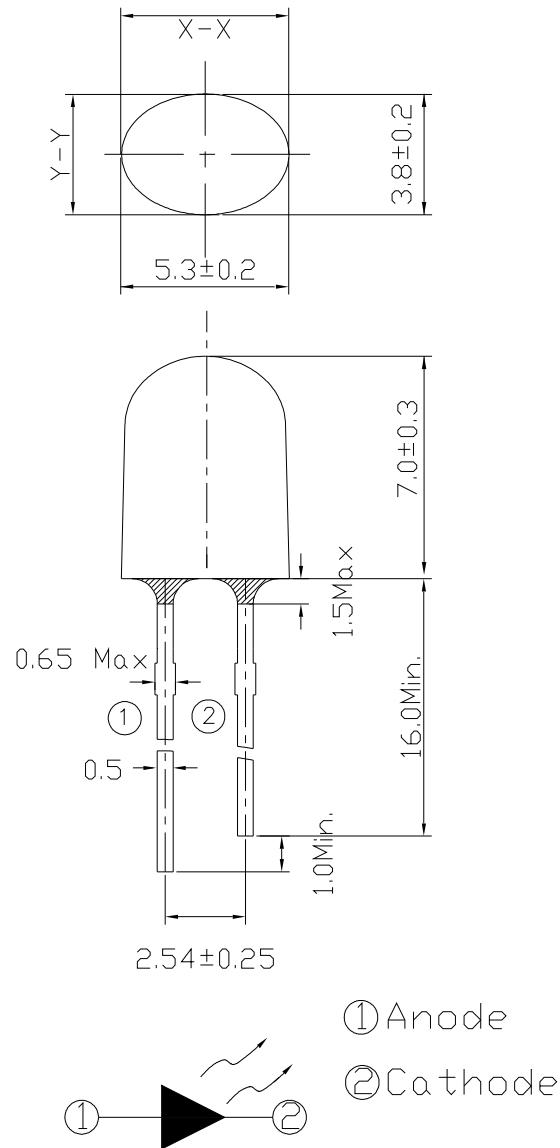
Applications

- Infrared applied system

Device Selection Guide

LED Part No.	Chip	Lens Color
	Material	
EAILP05OLAA0	GaAlAs	Water Clear

Package Dimensions



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

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	I _F	100	mA
Peak Forward Current*1	I _{FP}	1.0	A
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature*2	T _{sol}	260	°C
Power Dissipation at(or below) 25°C Free Air Temperature	P _d	160	mW

Notes: *1:I_{FP} Conditions--Pulse Width ≤ 100 μs and Duty ≤ 1%.

*2:Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Radiant Intensity	I _e	I _F =20mA	5.0	7.0	17.6	mW/sr
		I _F =100mA , Tp=20ms	--	32	--	
Peak Wavelength	λ _p	I _F =20mA	--	940	--	nm
Spectral Bandwidth	Δλ	I _F =20mA	--	50	--	nm
Forward Voltage	V _F	I _F =20mA	1.10	1.20	1.40	V
		I _F =100mA , Tp=20ms	1.20	1.30	1.60	
Reverse Current	I _R	V _R =5V	--	--	10	μA
View Angle	2θ 1/2	I _F =20mA(X)	--	80	--	deg
		I _F =20mA(Y)	--	30	--	

Rank

Condition : I_F=20mA

Unit : mW/sr

Bin Number	L	M	N
Min	5.0	7.8	11.0
Max	8.9	12.5	17.6

Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

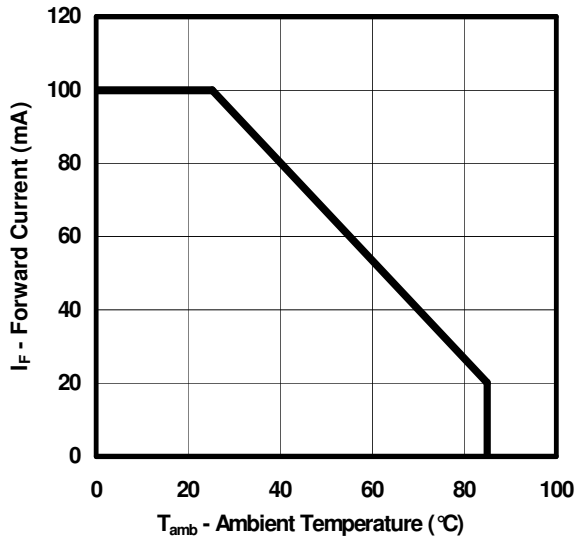


Fig.2 Spectral Distribution

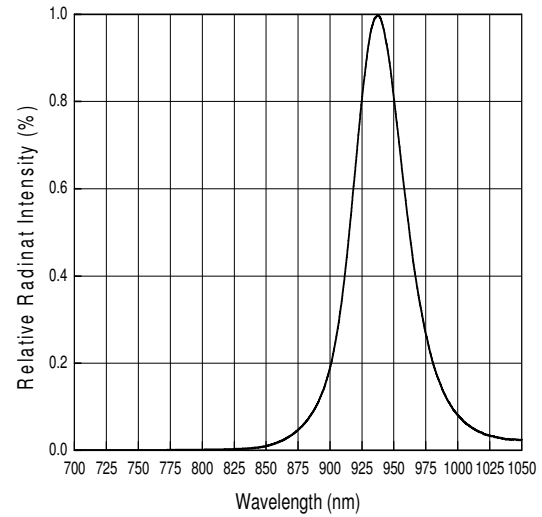


Fig.3 Radiant Intensity vs. Forward Current

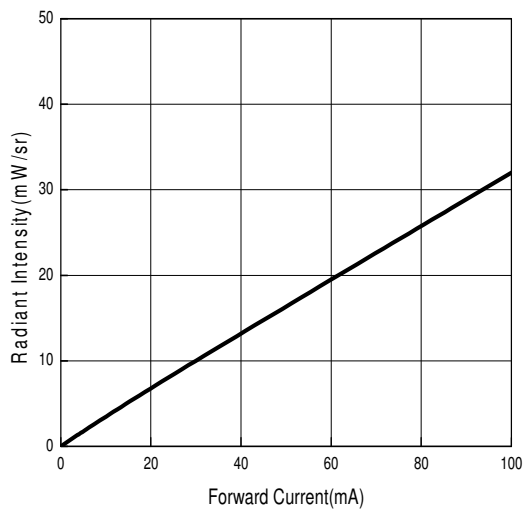
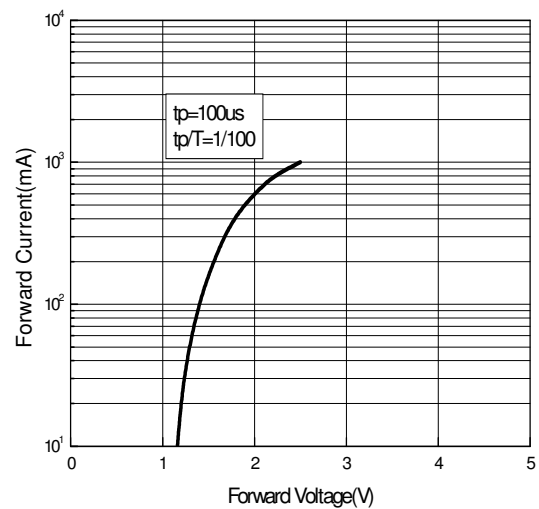
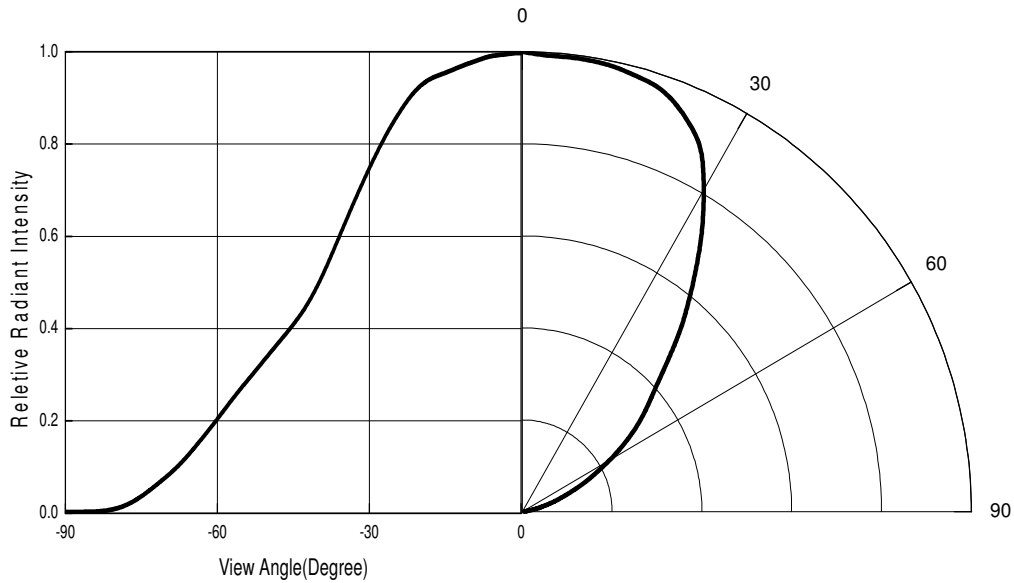


Fig.4 Forward Current vs. Forward Voltage

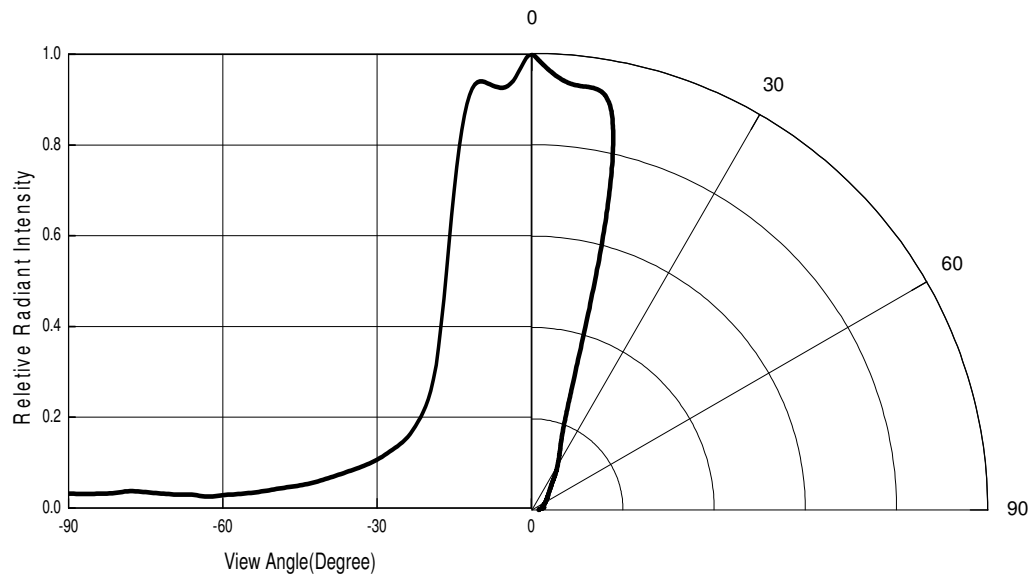


Typical Electro-Optical Characteristics Curves

Fig.5 Relative Radiant Intensity vs.
Angular Displacement
(X position)



(Y position)



Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

Label Form Specification

The diagram shows a rectangular label form with the following elements:

- Top left: A circle containing the chemical symbol **Pb**.
- Top center: A rectangular box containing the word **EVERLIGHT**.
- Top right: An empty circle.
- Below the **Pb** circle: The text "CPN : XXXXXXXXXXXXX" followed by a barcode and "XXXXXXXXXX".
- Below the CPN section: The text "QTY : XXX" followed by a barcode.
- Below the QTY section: The text "LOT NO : XXXXXXXXXXXX" followed by a barcode.
- Below the LOT NO section: The text "Reference : XXXXXXXX" followed by a barcode.
- Below the CPN section: The text "CAT : XXX", "HUE : XXX", and "REF : XXX" stacked vertically.
- Below the CAT/HUE/REF section: A rectangular box containing the text **RoHS**.

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak 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.
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