

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 (IR333C/H0-A) is a high intensity diode, molded in a water clear plastic package.

The device is spectrally matched with phototransistor, photodiode and infrared receive module.

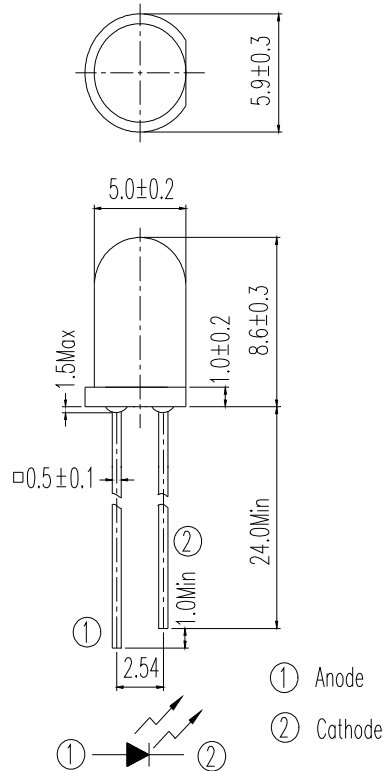
Applications

- Free air transmission system
- Optoelectronic switch
- Floppy disk drive
- Infrared applied system
- Smoke detector

Device Selection Guide

LED Part No.	Chip	Lens Color
	Material	
IR	GaAlAs	Water clear

Package Dimensions



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

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Rating	Units
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}	$-40 \sim +85$	
Storage Temperature	T_{stg}	$-40 \sim +100$	
Soldering Temperature (*2)	T_{sol}	260	
Power Dissipation at(or below) 25 Free Air Temperature	P_d	150	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.	Units
Radiant Intensity	I _e	I _F =20mA	5.6	12	--	mW/sr
		I _F =100mA Pulse Width 100μs and Duty 1%	--	60	--	
		I _F =1A Pulse Width 100μs and Duty 1%	--	600	--	
Peak Wavelength	λ _p	I _F =20mA	--	940	--	nm
Spectral Bandwidth	Δλ	I _F =20mA	--	45	--	nm
Forward Voltage	V _F	I _F =20mA	--	1.2	1.5	V
		I _F =100mA Pulse Width 100μs and Duty 1%	--	1.4	1.8	
		I _F =1A Pulse Width 100μs and Duty 1%	--	2.6	4.0	
Reverse Current	I _R	V _R =5V	--	--	10	μA
View Angle	2θ1/2	I _F =20mA	--	40	--	deg

Rank

Condition : I_F=20mA

Unit : mW/sr

Bin Number	L	M	N	P	Q	R
Min	5.60	7.80	11.00	15.00	21.00	30.00
Max	8.90	12.50	17.60	24.00	34.00	48.00

Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs.
Ambient Temperature

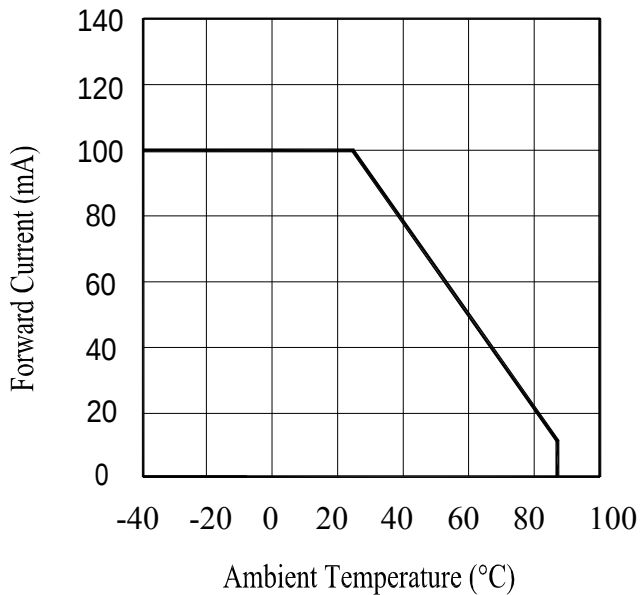


Fig.2 Spectral Distribution

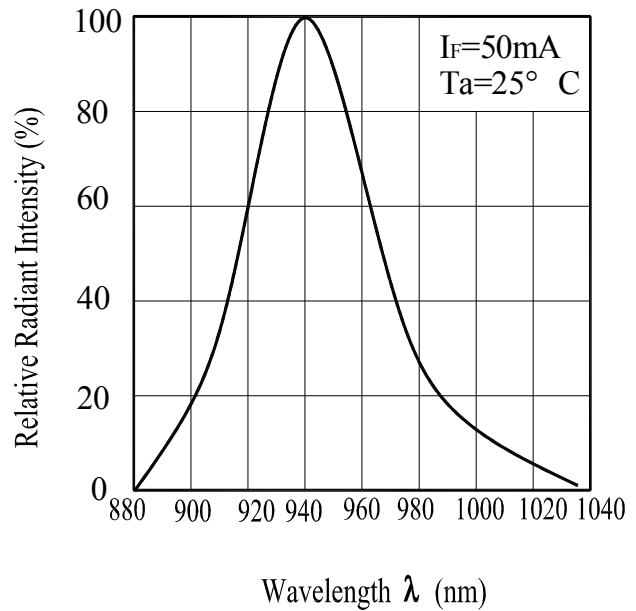


Fig.3 Peak Emission Wavelength vs.
Ambient Temperature

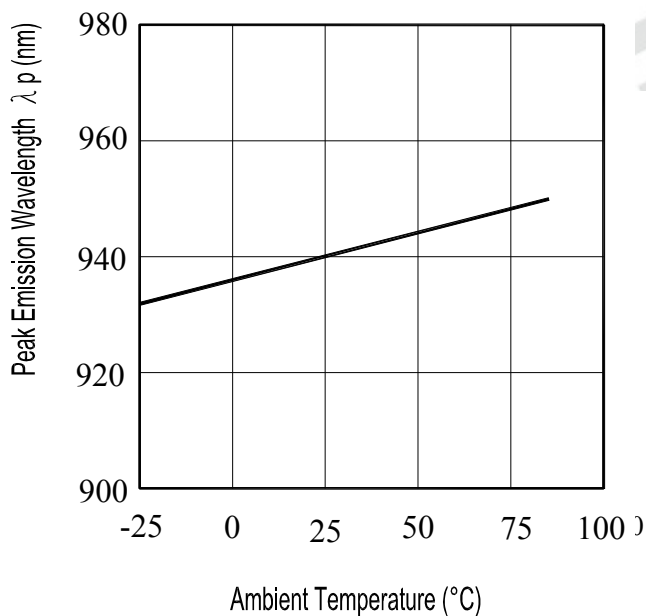


Fig.4 Forward Current vs.
Forward Voltage

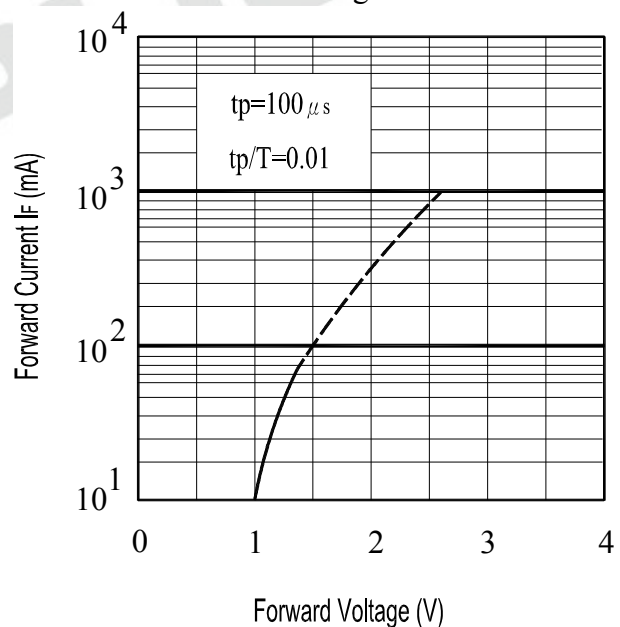


Fig.5 Radiant Intensity vs.
Forward Current

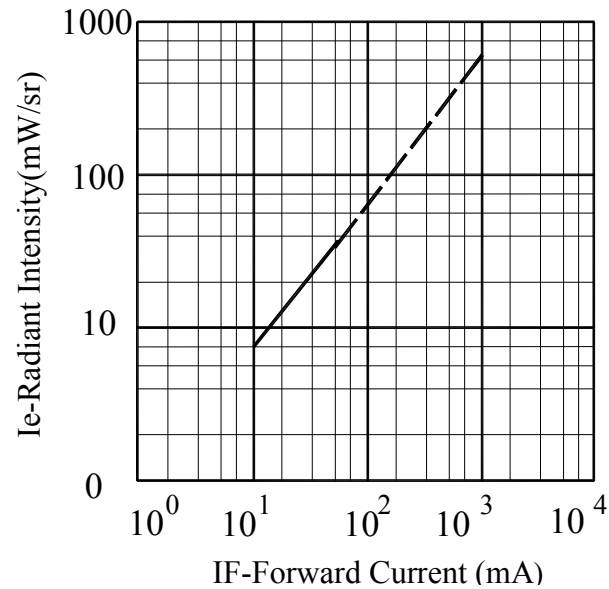
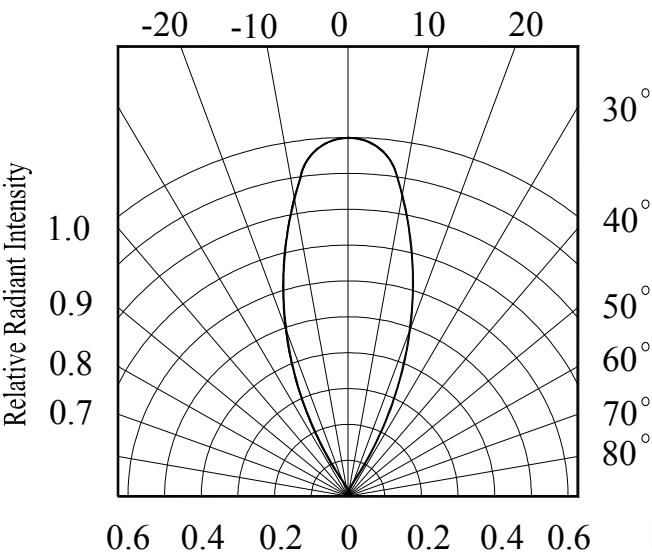


Fig.6 Relative Radiant Intensity vs.
Angular Displacement



Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

Label Form Specification

	EVERLIGHT	
CPN: P/N:		
IR333C/H0-A		
QTY:		CAT:
LOT NO:		HUE:
Reference		REF:

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak Wavelength

REF: Reference

LOT No: Lot Number

X: Month

Reference: Identify Label 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.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.

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