

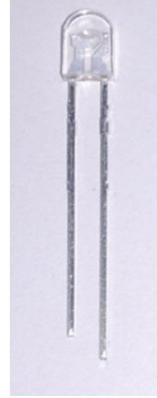
Technical Data Sheet

4mm Infrared LED , T-1 3/4

IR3494-30C/H80/L419

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.



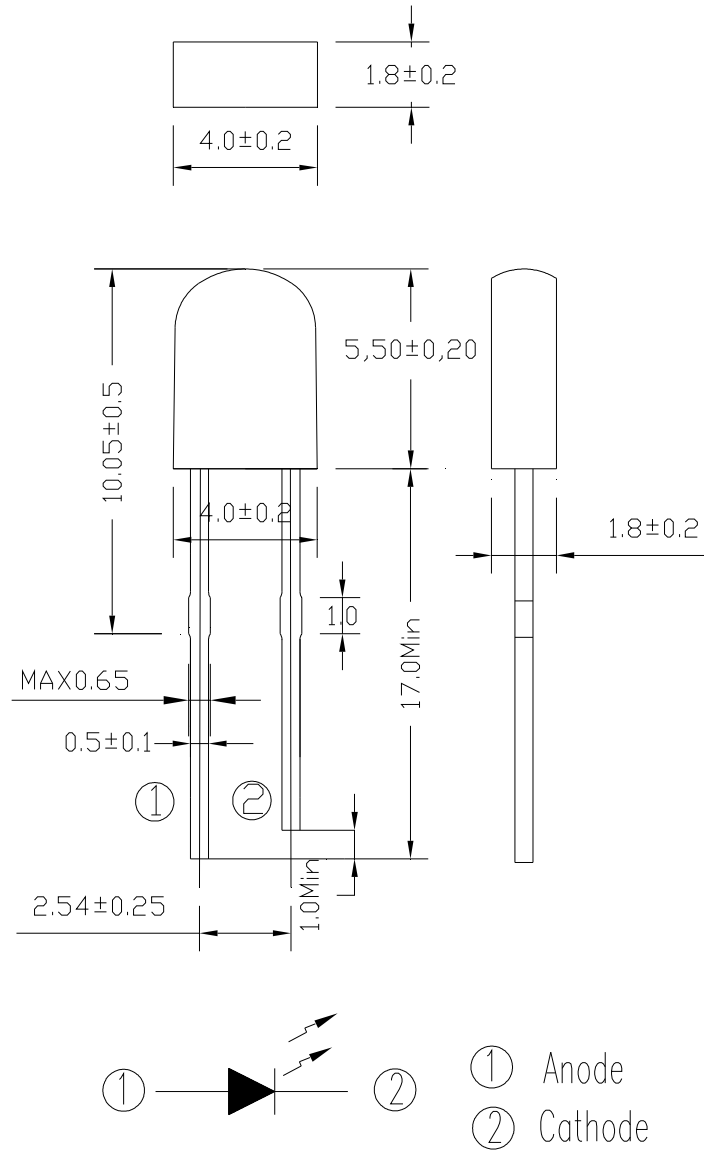
Descriptions

- EVERLIGHT'S Infrared Emitting Diode(IR3494-30C/H80/L419) 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

- Free air transmission system
- Infrared remote control units with high power requirement
- Smoke detector
- Infrared applied system

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	180	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	2.5	3.5	5.5	mW/sr
		I _F =250mA, f=60Hz, Pulse Width =50%	--	40	--	
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	1.50	V
		I _F =100mA	1.20	1.30	1.70	
Reverse Current	I _R	V _R =5V	--	--	10	μA
View Angle	2θ 1/2	I _F =20mA(X)	--	95	--	deg
		I _F =20mA(Y)	--	45	--	

Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

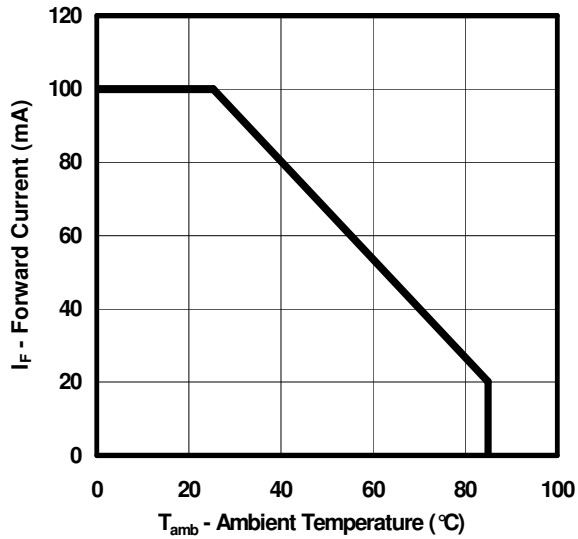


Fig.2 Spectral Distribution

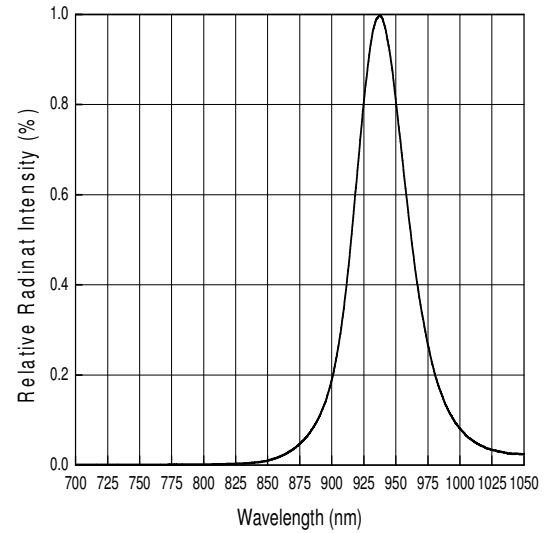


Fig.3 Radiant Intensity vs. Forward Current

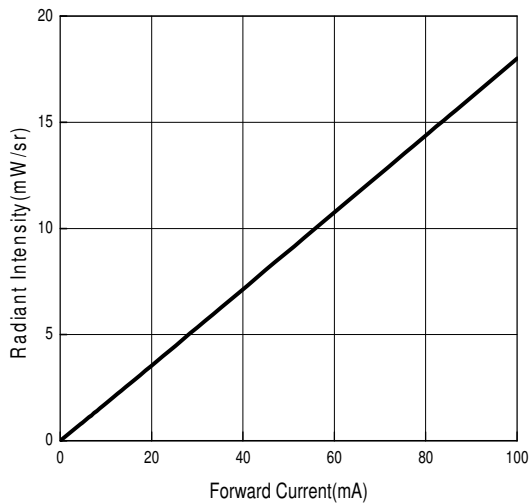
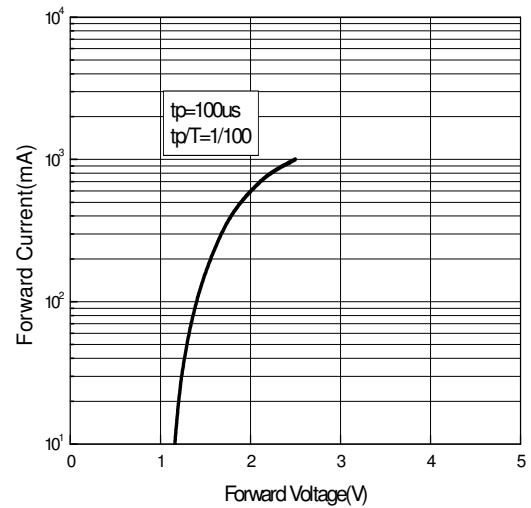


Fig.4 Forward Current vs. Forward Voltage

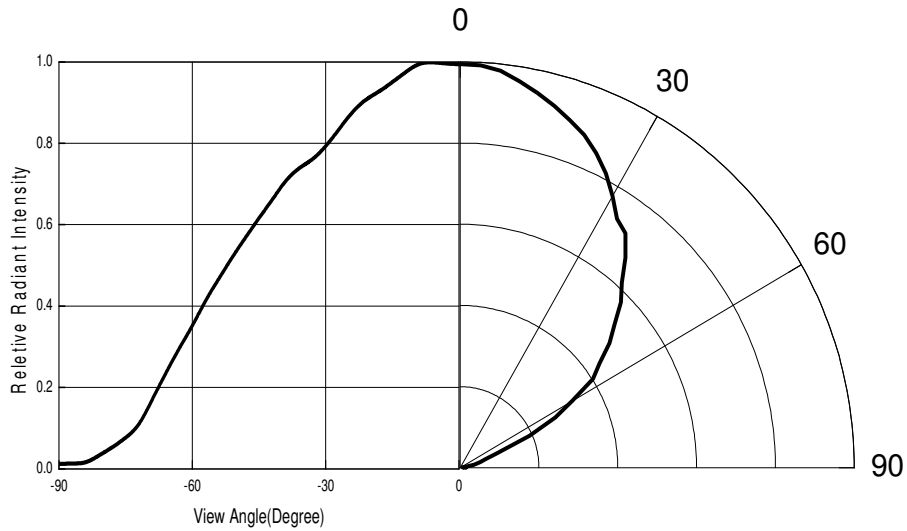


Typical Electro-Optical Characteristics Curves

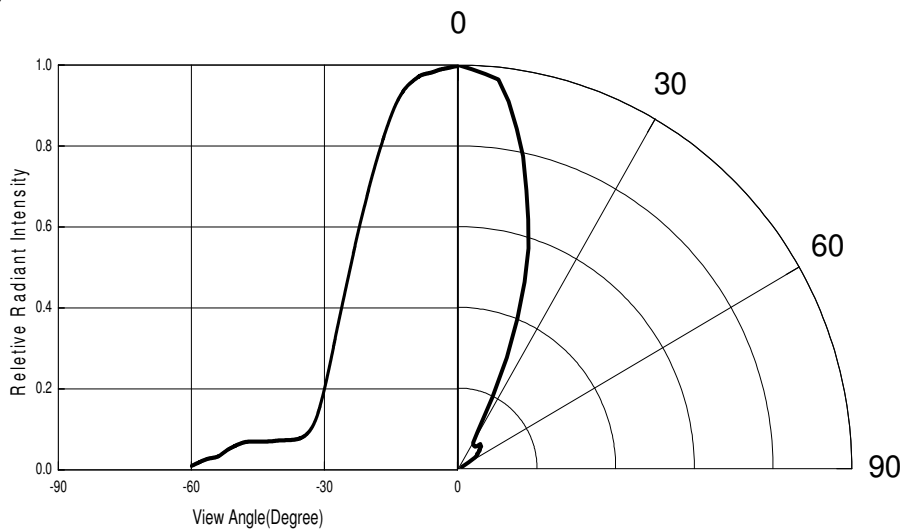
Fig.5 Relative Radiant Intensity vs.

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 fields and elements:

- Top left: A circle containing the letters "Pb".
- Top center: A rectangular box containing the word "EVERLIGHT".
- Top right: An empty circle.
- Below "EVERLIGHT": "CPN : XXXXXXXXXXXXX" followed by a barcode and "XXXXXXXXXX".
- Below that: "P/N : XXXXXXXXXXXXX" followed by a barcode and "XXXXXXXXXX".
- Bottom left: "QTY : XXX" followed by a barcode.
- Bottom center: "LOT NO : XXXXXXXXXXXX" followed by a barcode.
- Bottom right: "Reference : XXXXXXXXX" followed by a barcode.
- Right side: A rectangular box containing the text "RoHS".
- Bottom right: Fields for "CAT : XXX", "HUE : XXX", and "REF : XXX".

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.
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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