

Technical Data Sheet

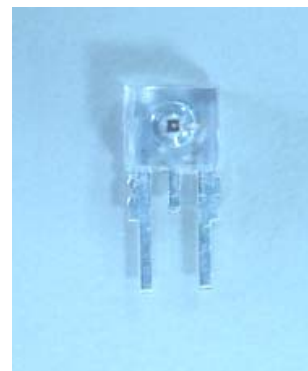
Side-looking Infrared Emitting Diode

IR939-26C/L302/S8(LT) SERIES

Features

- High reliability
- High radiant intensity
- Peak wavelength $\lambda_p=940\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- Pb free

This product itself will remain within RoHS compliant version.



Descriptions

- The miniature side-facing device has a chip , that emits radiation from the side of the clear package.

Applications

- Mouse
- Optoelectronic switch
- Infrared applied system

Device Selection Guide

LED Part No.	Chip	Lens Color
	Material	
IR939-26C/L302/S8(LT) SERIES	GaAlAs	Water clear

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Package Dimensions

Figure 1

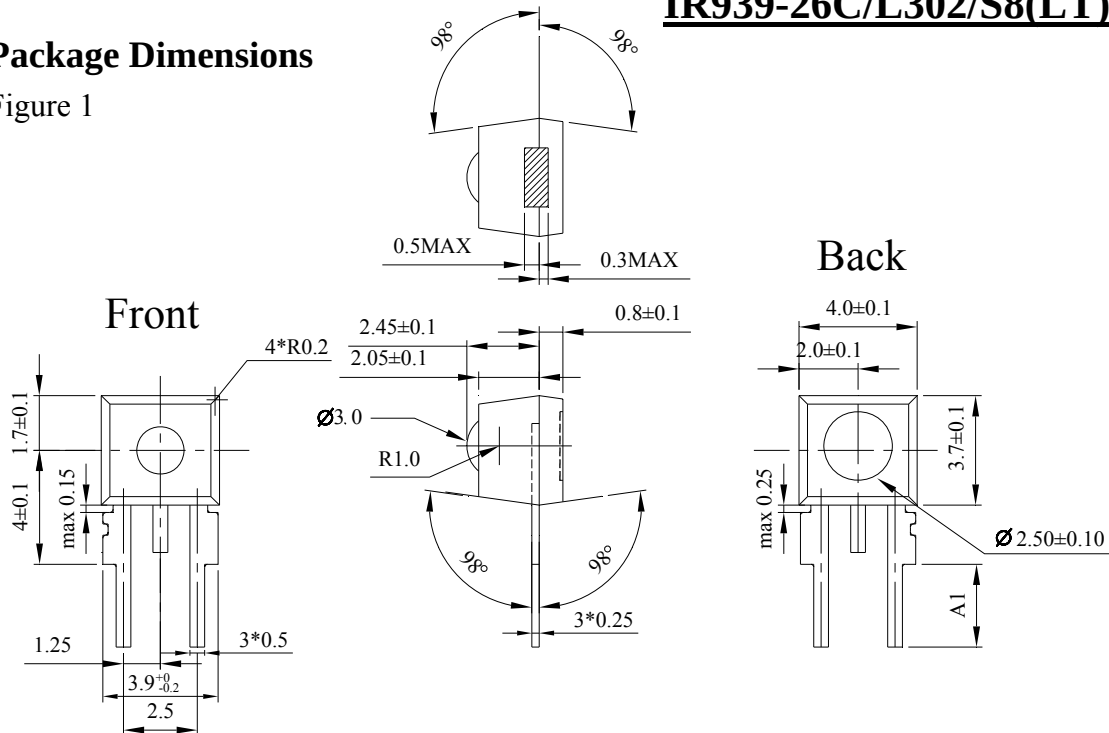


Figure 2 : Pin assignment

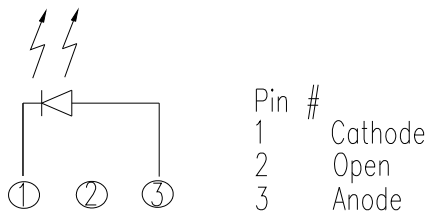
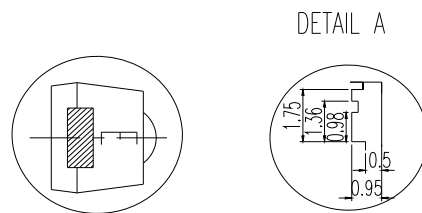


Figure 3 : Identification mark



.Device Selection Table:

Device Name	Pin Length A1 (mm)
IR939-26C/L302/S8(LT)	2.8 ±0.2
IR939-26C/L302/S8/F342(LT)	4.7 ±0.2
IR939-26C/L302/S8/F306(LT)	5.8 ±0.2
IR939-26C/L302/S8/F304(LT)	6.35 ±0.2
IR939-26C/L302/S8/F272(LT)	8.0 ±0.2

© NOTES :

1. All dimensions are in millimeters, Tolerances ± 0.25 mm.
2. Lead spacing is measured where the leads emerge from the package.
3. Epoxy package color: Clear.

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Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Continuous forward current	I _F	50	mA
Peak forward current Cycles(T):10msec , Pulse width:10μs	I _{FP}	1	A
Reverse voltage	V _R	5	V
Operating temperature range	Topr	-25~ +85	°C
Storage temperature range	Tstg	-40~ +100	°C
Lead soldering temperature (1/16 inch from body for 5 sec.)	---	260	°C
Power dissipation at (or below)25°C Free air temperature	Pd	100	mW

Electro-Optical Characteristics (Ta=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Radiant Intensity	I _e	6	9	—	mW/sr	I _F = 20 mA
Forward Voltage:	V _F	—	1.25	1.35	V	I _F = 20 mA
Forward Voltage:	V _F	1.10	—	1.25	V	I _F = 5 mA
Reverse Current:	I _R	—	—	10	μA	V _R =5V
Spectrum Width of Half value	△λ	—	50	—	nm	I _F =20mA
Peak Spectral Wavelength	λ _p	—	940	950	nm	I _F =20mA
View Angle	θ	25	30	—	Deg	I _F =20 mA

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Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs.

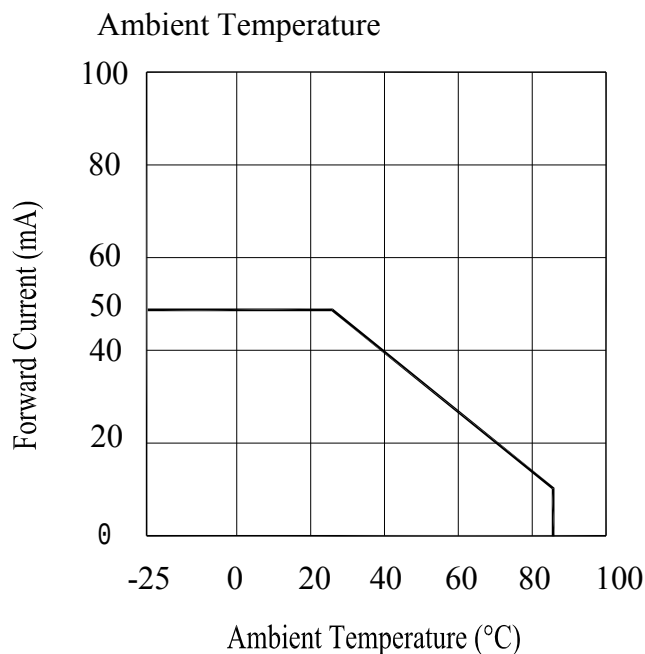


Fig.2 Spectral Distribution

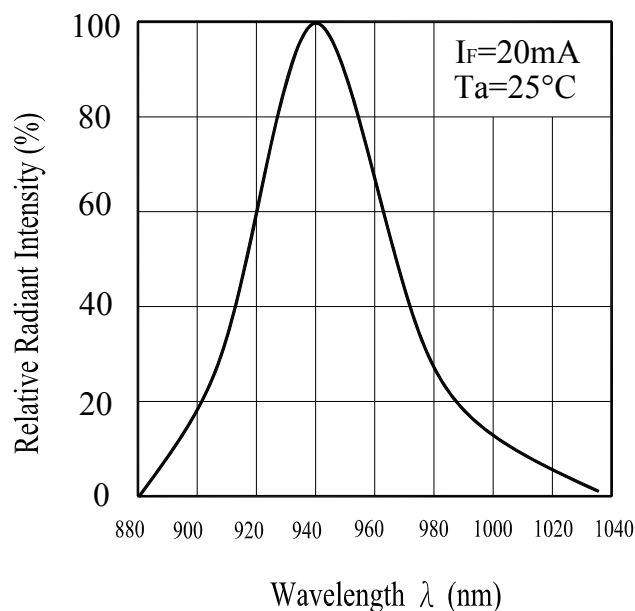


Fig.3 Peak Emission Wavelength

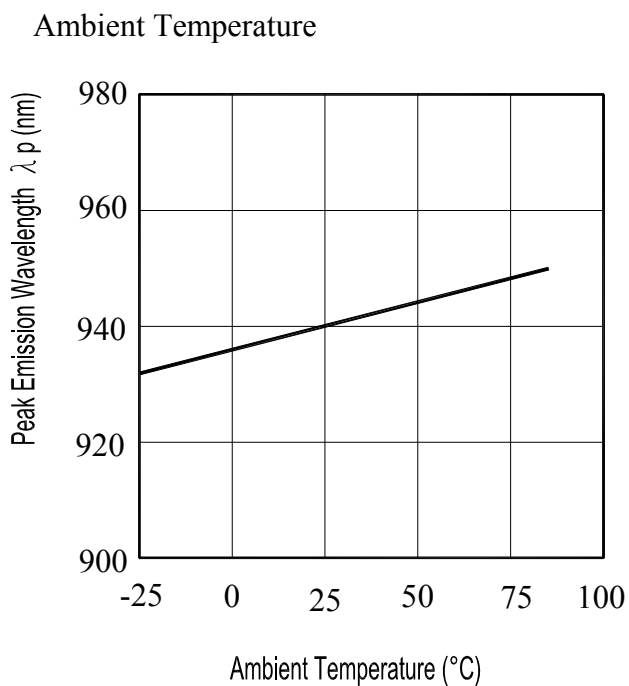
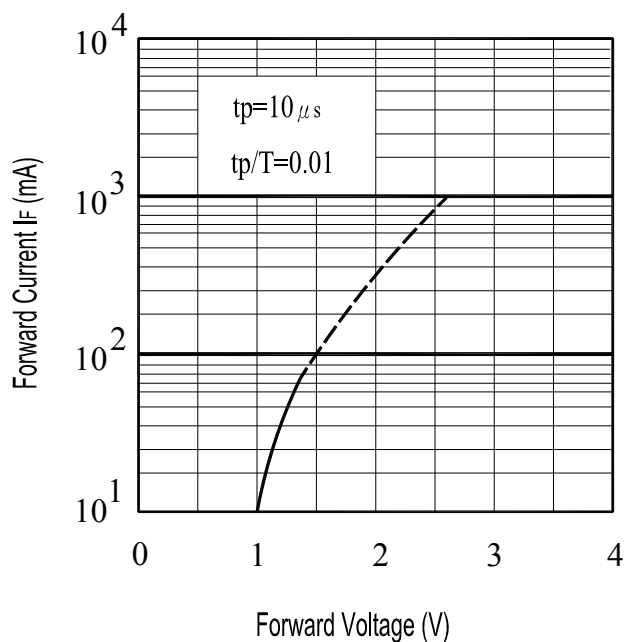


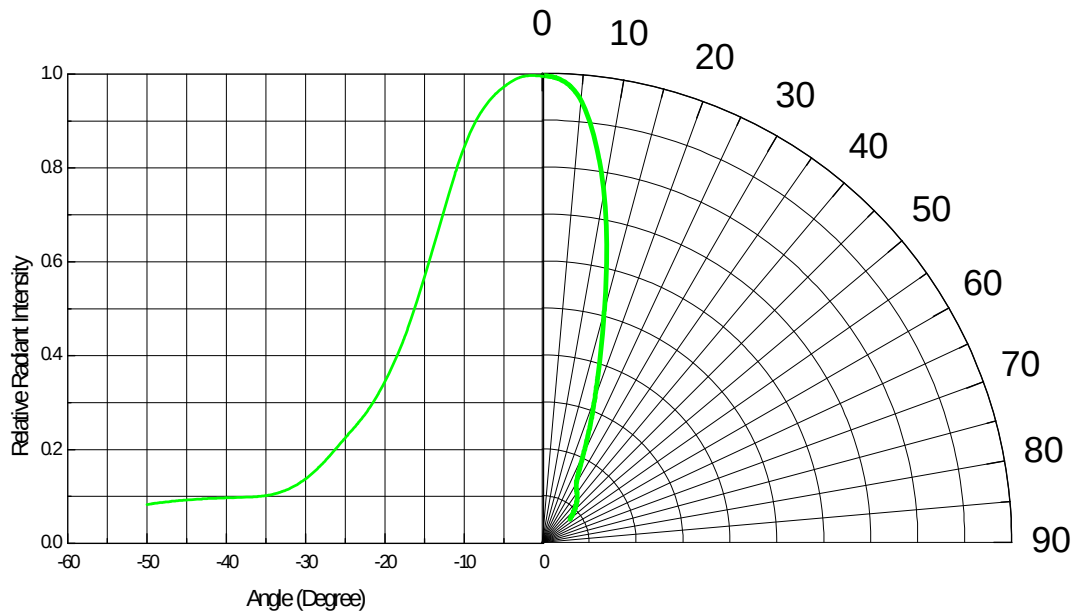
Fig.4 Forward Current vs. Forward Voltage



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Typical Electro-Optical Characteristics Curves

Fig.6 Relative Radiant Intensity vs.
Angular Displacement



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Reliability Test Item And Condition

The reliability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

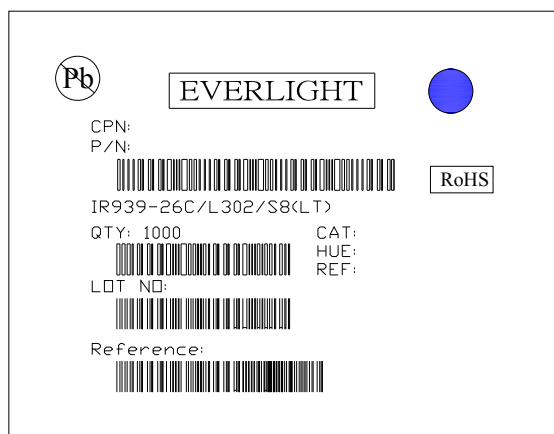
NO.	Item	Test Conditions	Test Hours/ Cycles	Sample Sizes	Failure Judgement Criteria	Ac/Re
1	Solder Heat	TEMP. : 260°C±5°C	10secs	22pcs	$I_R \geq U \times 2$ $E_e \leq L \times 0.8$ $V_F \geq U \times 1.2$ U : Upper Specification Limit L : Lower Specification Limit	0/1
2	Temperature Cycle	H : +100°C 15mins ↑ 5mins ↓ L : -40°C 15mins	300Cycles	22pcs		0/1
3	Thermal Shock	H : +100°C 5mins ↑ 10secs ↓ L : -10°C 5mins	300Cycles	22pcs		0/1
4	High Temperature Storage	TEMP. : +100°C	1000hrs	22pcs		0/1
5	Low Temperature Storage	TEMP. : -40°C	1000hrs	22pcs		0/1
6	DC Operating Life	I _F =20mA	1000hrs	22pcs		0/1
7	High Temperature/ High Humidity	85°C / 85% R.H	1000hrs	22pcs		0/1

IR939-26C/L302/S8(LT) SERIES

Packing Quantity Specification

- 1.1000PCS/1Bag , 8Bags/1Box
- 2.10Boxes/1Carton

Label Form Specification



CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak Wavelength

REF: Reference

LOT No: Lot Number

MADE IN TAIWAN: Production Place

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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EVERLIGHT ELECTRONICS CO., LTD.

Office: No 25, Lane 76, Sec 3, Chung Yang Rd,
Tucheng, Taipei 236, Taiwan, R.O.C

Tel: 886-2-2267-2000, 2267-9936

Fax: 886-2267-6244, 2267-6189, 2267-6306

<http://www.everlight.com>