THE DATASHEET OF

IR958-8C

Technical Data Sheet

1.6mm Side Looking Infrared Emitting Diode

IR958-8C

Features

- Low forward voltage
- Peak wavelength λp=940nm
- High reliability
- This product itself will remain within RoHS compliant version.

Descriptions

The **IR958-8C** is a GaAs infrared emitting diode. The miniature side-facing device is a chip that emits radiation from the side of the clear package.

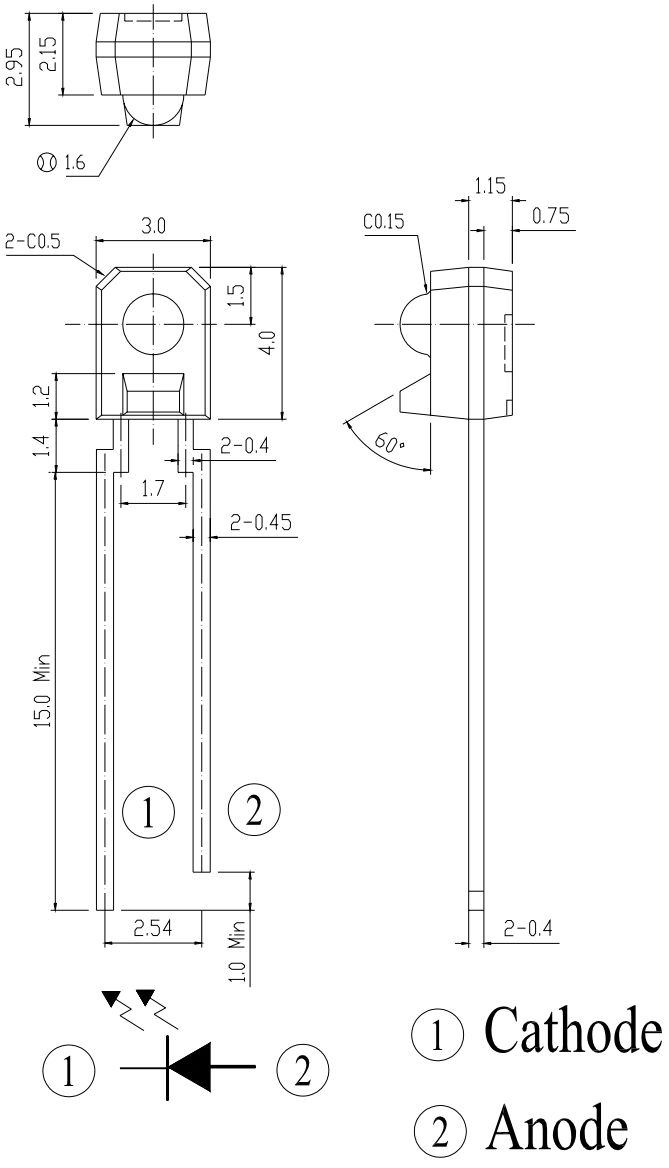
Applications

- VCR
- Floppy disk drive
- Automatic stroboscope
- Cassette type recorder
- Optoelectronic switch
- Photo interrupter

Device Selection Guide

Part No.	Chip Material	Lens Color
IR958-8C	GaAs/GaAlAs	Water clear

Package Dimensions



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

Absolute Maximum Ratings (Ta=25℃)

Item	Symbol	Rating	Unit
Power Dissipation	P_D	75	mW
Reverse Voltage	V_R	5	V
Forward Current	I_F	50	mA
Peak Forward Current (*1)	I_{FP}	1	A
Operating Temperature	Topr	-25~+85	℃
Storage Temperature	Tstg	-40~+85	℃
Soldering Temperature (1/16 inch from body for 5 seconds)	Tsol	260	℃

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

*2:Soldering time≦5 seconds.

Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Collector Current	Ic(on)	306	-	1870	μA	I_F=4mA,V_{CE}=3.5V
Peak Wavelength	λp	-	950	-	nm	I_F =20mA
Spectral Bandwidth	△λ	-	40	-	nm	I_F =20mA
View Angle	2θ1/2	-	25	-	Deg	I_F =20mA
Forward Voltage	V_F	-	1.2	1.5	V	I_F =20mA
Reverse Current	I_R	-	-	10	μA	V_R=5V

Typical Electrical/Optical/Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

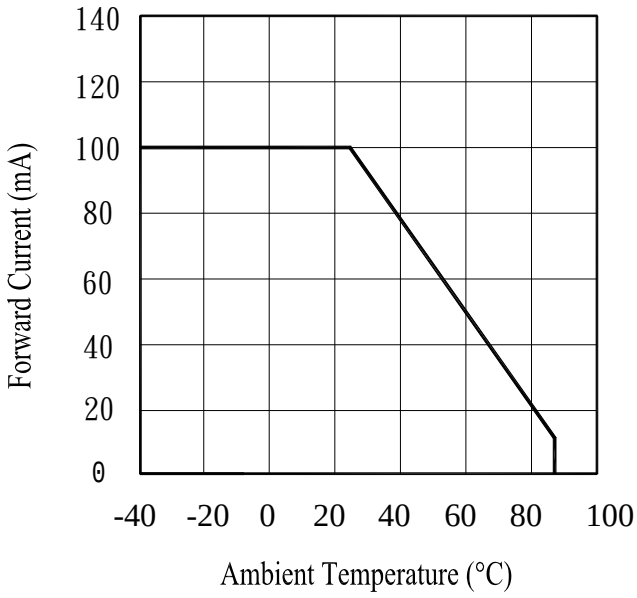


Fig.2 Spectral Distribution

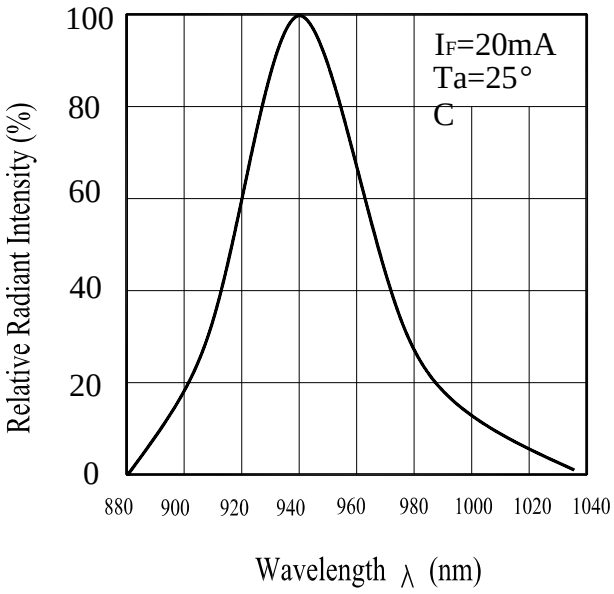


Fig.3 Peak Emission Wavelength Ambient Temperature

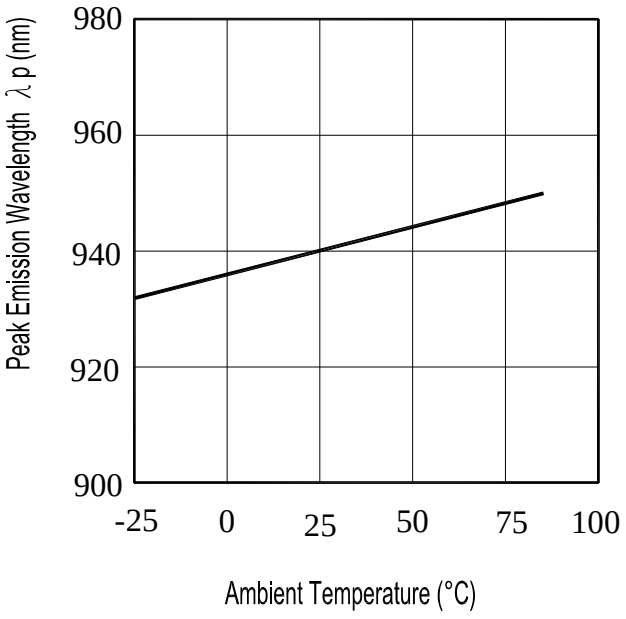
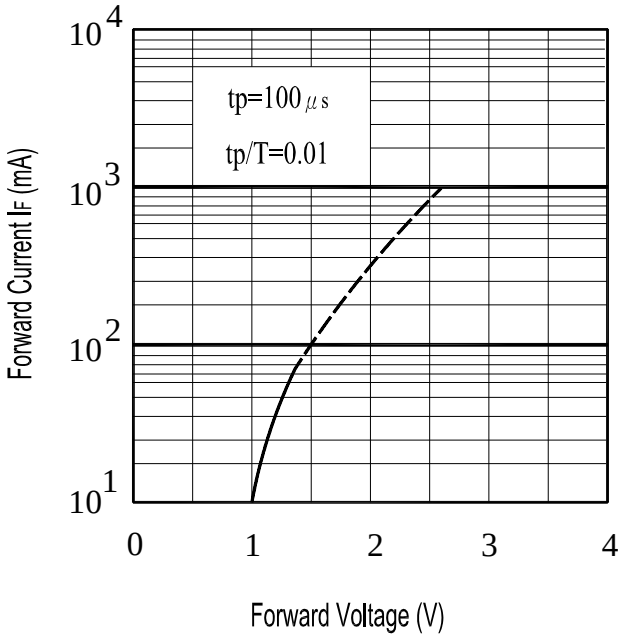


Fig.4 Forward Current vs. Forward Voltage



IR958-8C

. Fig5 Forward Voltage vs. Ambient Temperature(°C)

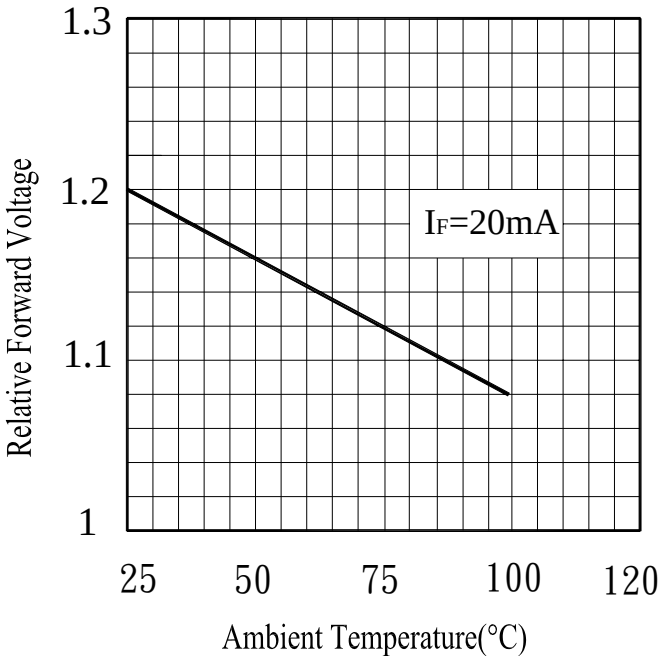
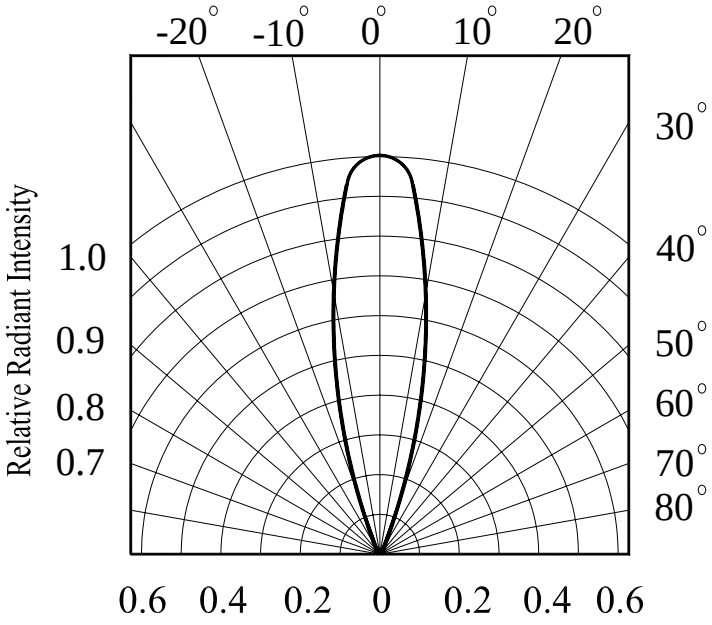
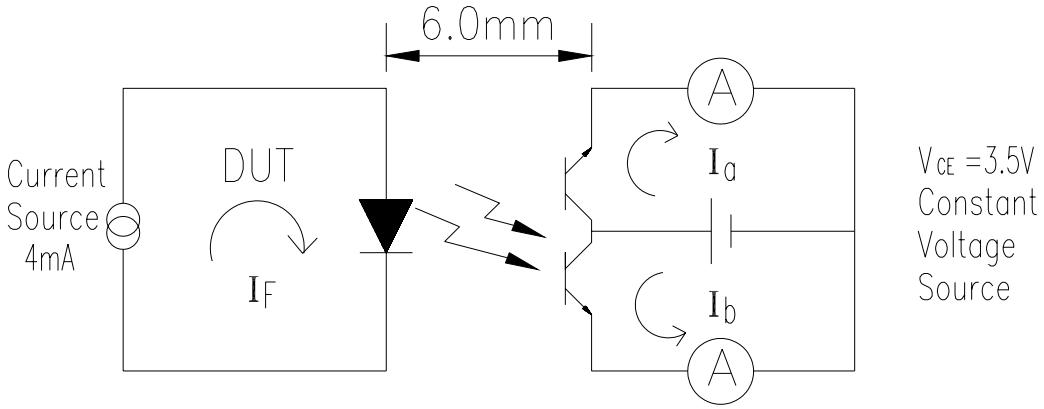


Fig.6 Relative Radiant Intensity vs. Angular Displacement



Test Method

The intensity testing method of Infrared emitting diode:



To Distinguish Intensity:

Ranks

Parameter	Symbol	Min	Max	Unit	Test Condition
5-2	Ic(ON)	1053	1870	μA	I_F=4mA,V_{CE}=3.5V
6-1	Ic(ON)	650	1274	μA	I_F=4mA,V_{CE}=3.5V
6-2	Ic(ON)	465	750	μA	I_F=4mA,V_{CE}=3.5V
7-1	Ic(ON)	347	550	μA	I_F=4mA,V_{CE}=3.5V
7-2	Ic(ON)	306	441	μA	I_F=4mA,V_{CE}=3.5V

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℃±5℃	10secs	22pcs	$I_R \geqq U \times 2$ $Ee \leqq L \times 0.8$ $V_F \geqq U \times 1.2$ U：Upper Specification Limit L：Lower Specification Limit	0/1
2	Temperature Cycle	H：+100℃ 15mins ↕ 5mins L：-40℃ 15mins	300Cycles	22pcs		0/1
3	Thermal Shock	H：+100℃ 5mins ↕ 10secs L：-10℃ 5mins	300Cycles	22pcs		0/1
4	High Temperature Storage	TEMP.：+100℃	1000hrs	22pcs		0/1
5	Low Temperature Storage	TEMP.：-40℃	1000hrs	22pcs		0/1
6	DC Operating Life	I_F=20mA	1000hrs	22pcs		0/1
7	High Temperature/ High Humidity	85℃ / 85% R.H	1000hrs	22pcs		0/1

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

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.

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

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View IR958-8C on WIN SOURCE
- Everlight Electronics Co Ltd Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management