



MODEL 產品型號 : XL-IR324C

Features

- ◆ **High radiant intensity**
- ◆ **Low forward voltage**
- ◆ **Good spectral matching to Si photo detector**
- ◆ **High reliability**
- ◆ **Pd free**
- ◆ **The product itself will remain within RoHS compliant version**

Descriptions

- ◆ **Infrared Emitting Diode (XL-IR324C) is a high intensity diode , molded in a water clear plastic package.**
- ◆ **The device is spectrally matched with phototransistor , photodiode and infrared receiver module.**

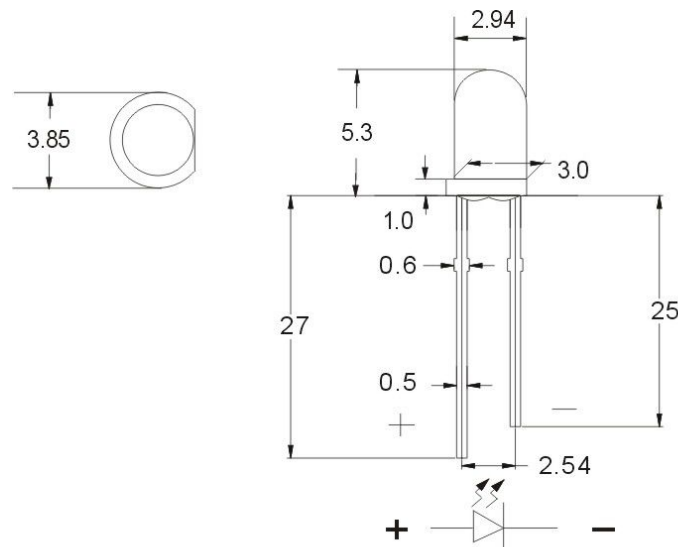
Applications

- ◆ **Free air transmission system**
- ◆ **Smoke detector**

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- ◆ Infrared applied system
- ◆ Optoelectronic switch
- ◆ Floppy disk drive

Package Dimension 外形尺寸圖



NOTE: TOLERANCE $\pm 0.5\text{mm}$

Notes:

All dimensions are in millimeters

Protruded resin under flange is 0.25mm Max.

Lead spacing is measure where the lead emerge from the package.

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Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	Rating	Unit
Continuous Forward Current	I _F	100	<u>mA</u>
Peak Forward Current (Pulse width=100 μ s, Duty cycle=1%)	I _{FP}	1.0	A
Reverse Voltage	V _R	5	V
Operating Temperature	<u>T_{opr}</u>	-40~+85	℃
Storage Temperature	<u>T_{stg}</u>	-40~+85	℃
Soldering Temperature*	<u>T_{sol}</u>	260	℃
Power Dissipation at(or below)25℃ Free Air Temperature	P _d	150	<u>mW</u>

* 4mm from mold body less than 5 seconds

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Electrical Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Radiant Intensity	I_e	30	50		mW/sr	$I_F=50\text{mA}$
			500			$I_F=100\text{mA}, t_p=100\mu\text{s}, t_p/T=0.01$
			5000			$I_F=1\text{A}, t_p=100\mu\text{s}, t_p/T=0.01$
Peak Wavelength	λ_p		940		nm	$I_F=20\text{mA}$
Spectral Bandwidth	$\Delta\lambda$		50		nm	$I_F=20\text{mA}$
Forward Voltage	V_F		1.27	1.5	V	$I_F=50\text{mA}$
			1.6	1.8		$I_F=100\text{mA}, t_p=100\mu\text{s}, t_p/T=0.01$
			2.6	4.0		$I_F=1\text{A}, t_p=100\mu\text{s}, t_p/T=0.01$
Reverse Current	I_R			10	μA	$V_R=5\text{V}$
Viewing Angle	$2\theta_{1/2}$		30		deg	$I_F=20\text{mA}$

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Typical Electrical-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

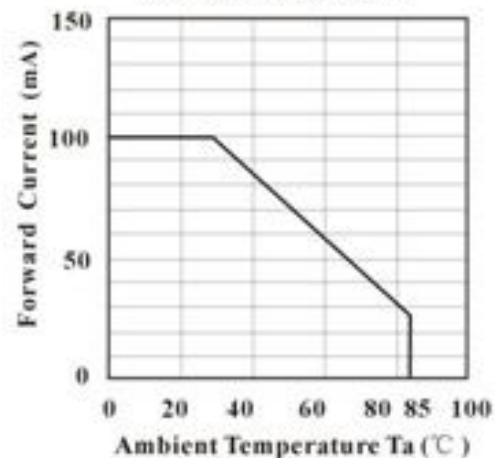


Fig.2 Spectral Sensitivity

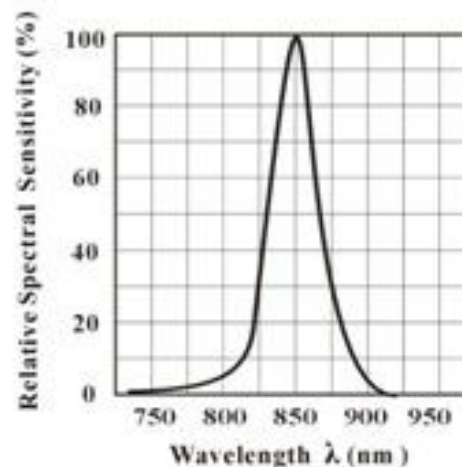


Fig.3 Peak Emission WaveLength vs Ambient Temperature

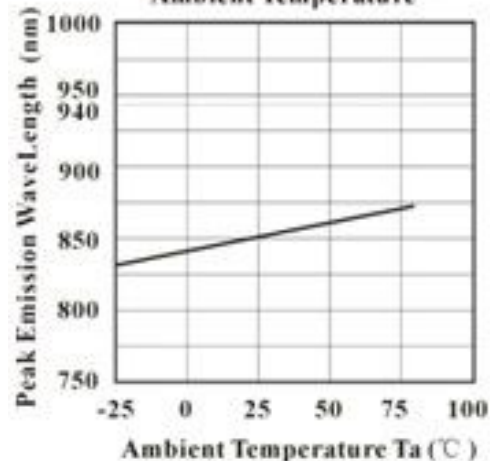
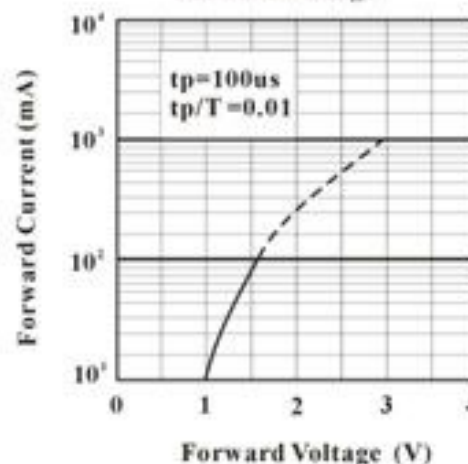


Fig.4 Forward Current vs. Forward Voltage



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Fig. 5 sRelative Intensity vs.
Forward Current

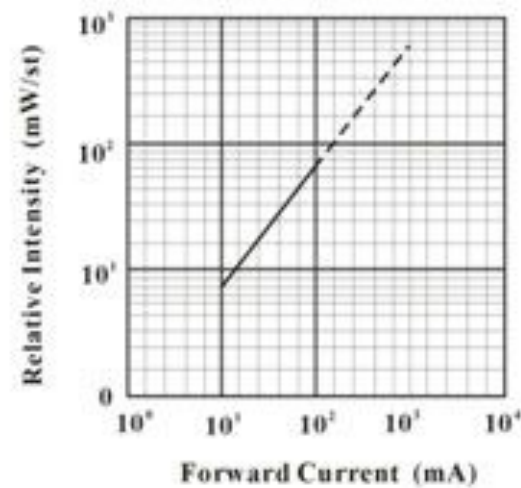


Fig.6 Relative Radiant Intensity vs.
Angular Displacement

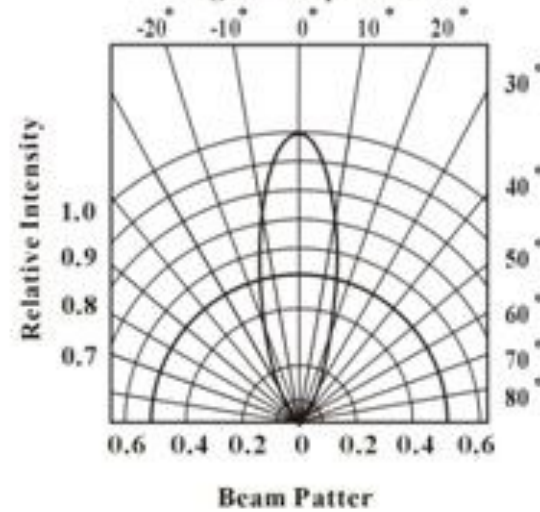


Fig.7 Relative Intensity vs.
Ambient Temperature (°C)

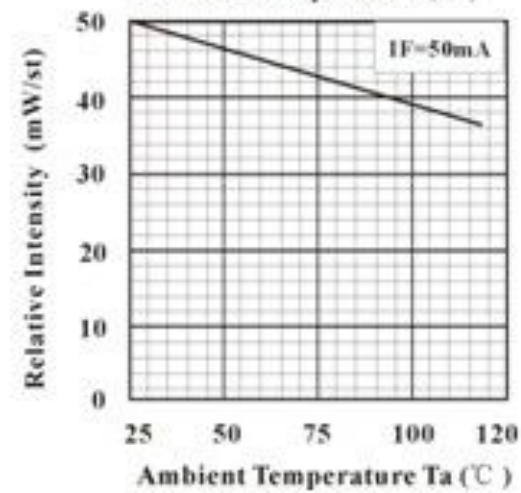


Fig.8 Forward Voltage vs.
Ambient Temperature (°C)

