



Top Infrared LED

MODEL NO : HIR67-21C/L11/TR8

■ Features :

- High radiant intensity
- Peak wavelength $\lambda_p=850\text{nm}$
- View angle 120°
- High reliability
- Small double-end package

■ Description :

- HIR67-21C/L11/TR8 is an infrared emitting diode in miniature SMD package which is molded in a water clear plastic with flat top view lens. The device is spectrally matched with silicon photodiode and phototransistor.

■ Applications :

- PCB mounted infrared sensor
- Infrared source in tactile keyboard
- IR diode in low space application
- Infrared applied system
- Floppy disk drive

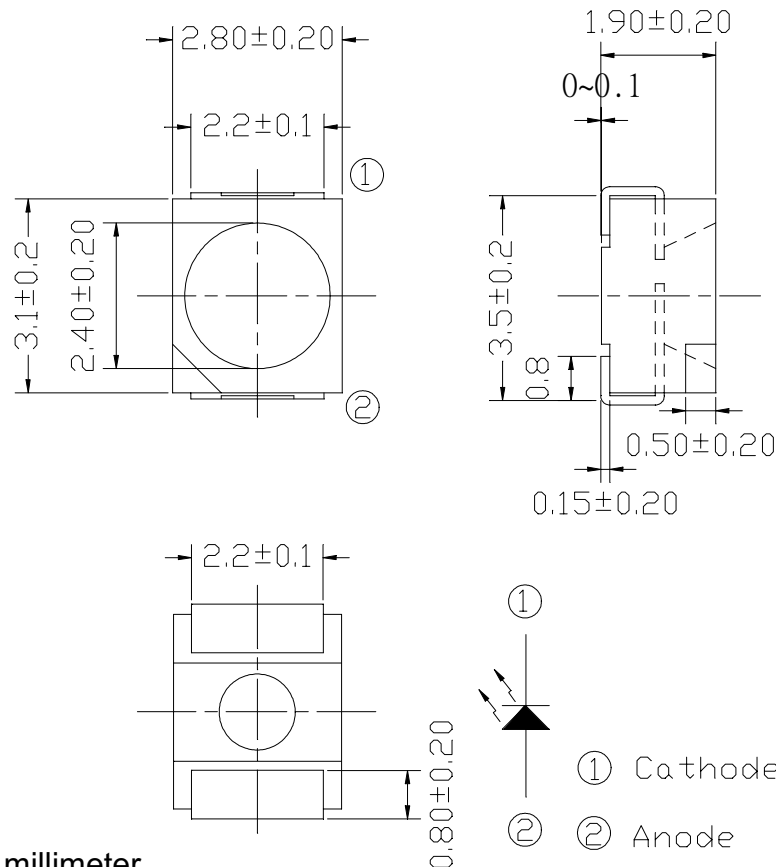
PART NO.	CHIP	LENS COLOR
	MATERIAL	
HIR	GaAlAs	Water Clear



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■ Package Dimensions :



■ Notes :

1. All dimensions are in millimeter.
2. General tolerance: ± 0.1 mm
3. Lens color : Water Clear.
4. Above specification may be changed without notice. EVERLIGHT will reserve authority On material change for above specification.
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6. When using this product , please observe the absolute maximum ratings and the instructions for use outlined in these specification sheets. EVERIGHT 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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■ Absolute Maximum Ratings at $T_A = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit	Notice
Continuous Forward Current	I_F	65	mA	
Peak Forward Current Pulse width=100 μs , Duty cycle=1%	I_{FP}	1.0	A	
Reverse Voltage	V_R	5	V	
Operating Temperature	Topr	-25 to+85	$^\circ\text{C}$	
Storage Temperature	Tstg	-40 to+85	$^\circ\text{C}$	
Soldering Temperature	Tsol	260	$^\circ\text{C}$	
Power Dissipation at(or below) 25 $^\circ\text{C}$ Free Air Temperature	Pd	130	mW	

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Radiant Intensity	Ee	1.0	2.0	---	mW/sr	$I_F=20\text{mA}$
		---	10	---		$I_F=100\text{mA}, t_p=100 \mu\text{s}, t_p/T=0.01$
		---	100	---		$I_F=1\text{A}, t_p=100 \mu\text{s}, t_p/T=0.01$
Peak Wavelength	λ_p	---	850	---	nm	$I_F=20\text{mA}$
Spectral Bandwidth	$\Delta \lambda$	---	45	---	nm	$I_F=20\text{mA}$
Forward Voltage	V_F	---	1.45	1.65	V	$I_F=20\text{mA}$
		---	1.80	2.40		$I_F=100\text{mA}, t_p=100 \mu\text{s}, t_p/T=0.01$
		---	4.10	5.25		$I_F=1\text{A}, t_p=100 \mu\text{s}, t_p/T=0.01$
Reverse Current	I_R	---	---	10	μA	$V_R=5\text{V}$
View Angle	$2\theta_{1/2}$	---	120	---	deg	$I_F=20\text{mA}$
Rise Time	t_r	---	25	---	ns	$I_F=20\text{mA}$
Fall Time	t_f	---	15	---	ns	$I_F=20\text{mA}$



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■ Typical Electrical/Optical/Characteristics Curves

Fig. 1 Forward Current vs. Ambient Temperature

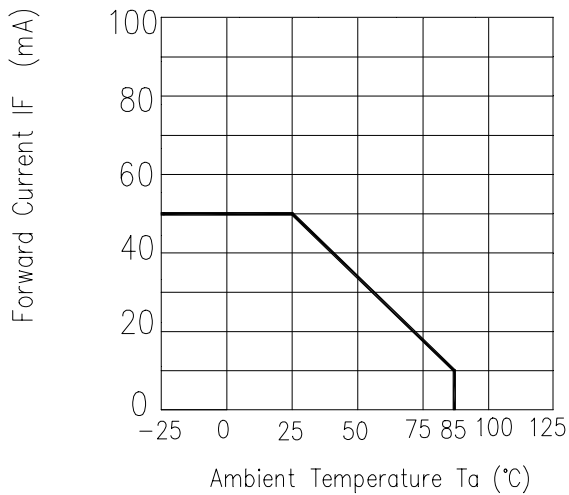


Fig. 2 Spectral Distribution

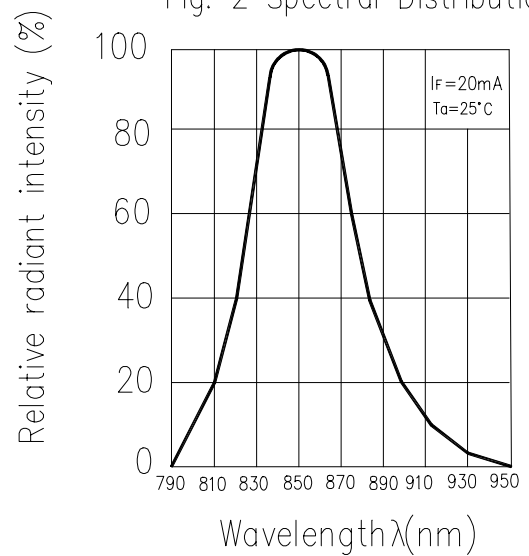


Fig. 3 Peak Emission Wavelength vs. Ambient Temperature

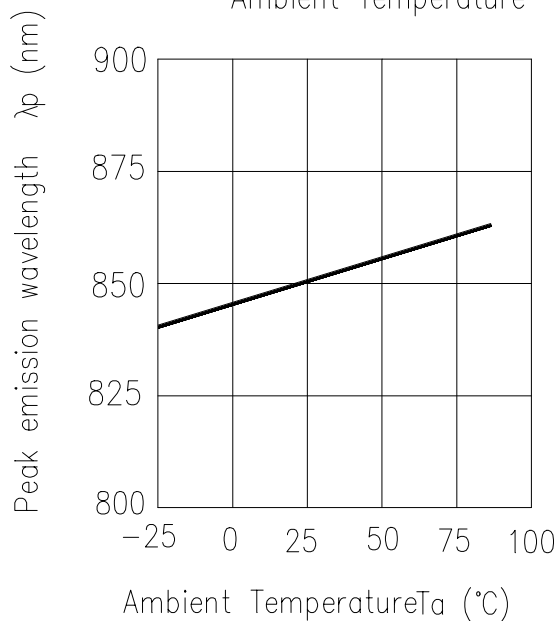
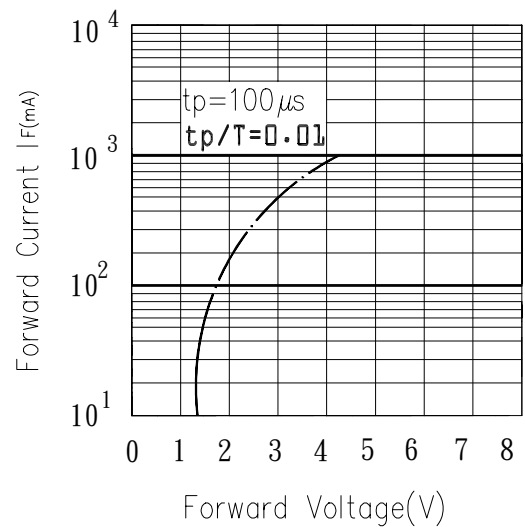


Fig. 4 Forward Current vs. Forward Voltage





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Fig. 5 Relative Intensity vs. Forward Current

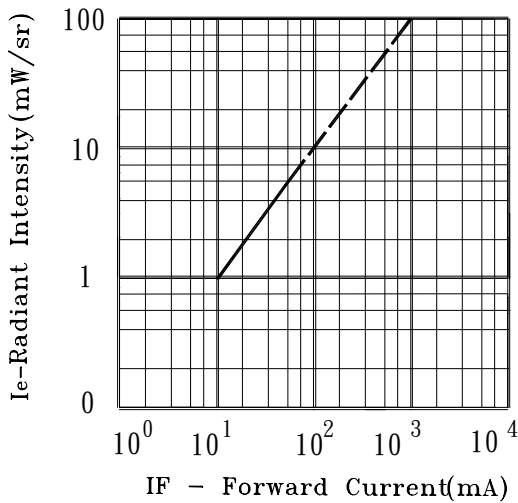


Fig. 6 Relative Radiant Intensity vs. Angular Displacement

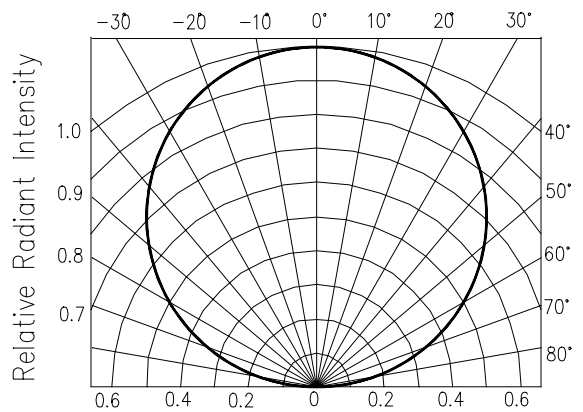


Fig. 7 Relative Intensity vs. Ambient Temperature (°C)

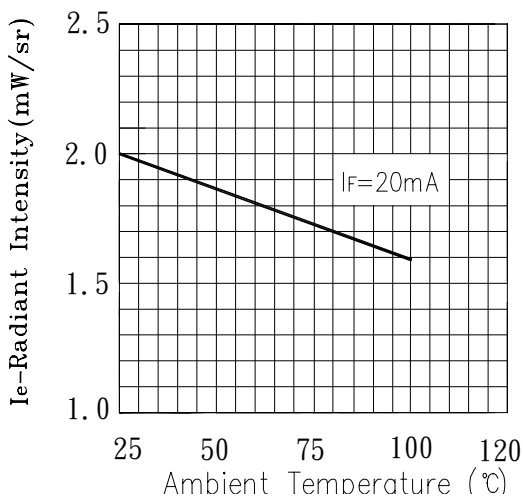
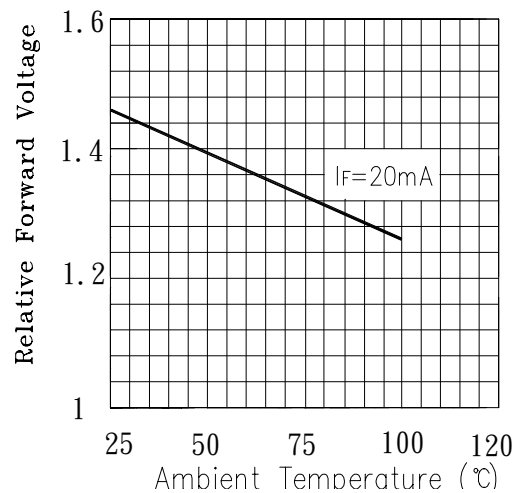


Fig. 8 Forward Current vs. Ambient Temperature (°C)



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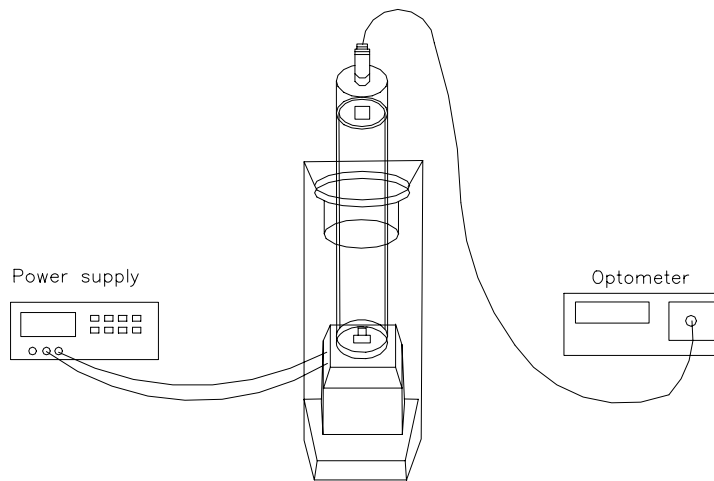
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■ Test Method For Power :

Condition : $I_f=20 \text{ mA}$

Test Item : Radiant Intensity

Unit : mW/sr



■ Taping Dimensions:

