

# GL4910

## Side View Type Infrared Emitting Diode for Camera AF (Automatic Focusing)

### ■ Features

1. Small spot light diameter for easy beam diaphragming  
(\*Apparent emission diameter : TYP.  $\phi$  0.32 mm)
2. Uniform emission intensity on chip emitting surface
3. Low peak forward voltage type  
(Peak forward voltage  $V_{FM}$ : TYP. 1.7V)

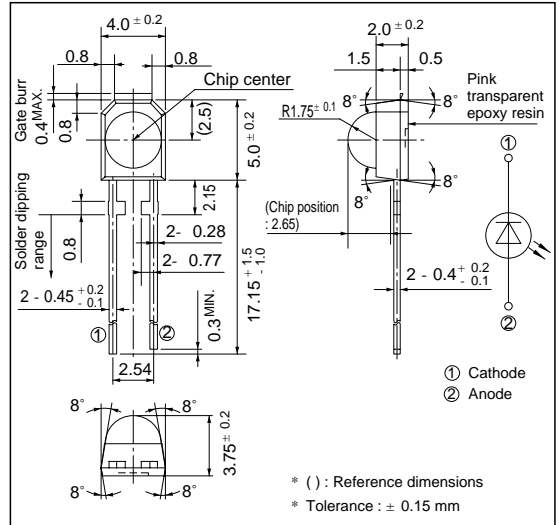
\* Expansion range on lens surface of infrared emitted from chips

### ■ Applications

1. Cameras

### ■ Outline Dimensions

(Unit : mm)



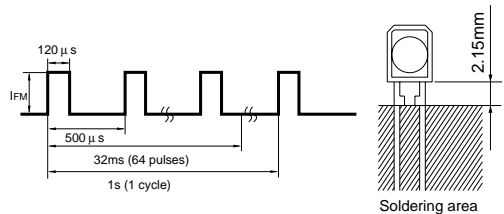
### ■ Absolute Maximum Ratings

( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
Forward current	$I_F$	50	mA
*1 Peak forward current	$I_{FM}$	1	A
Reverse voltage	$V_R$	4	V
Operating temperature	$T_{opr}$	- 25 to + 60	$^\circ\text{C}$
Storage temperature	$T_{stg}$	- 40 to + 85	$^\circ\text{C}$
*2 Soldering temperature	$T_{sol}$	260	$^\circ\text{C}$

\*1 30,00 cycles max. on pulse conditions shown in the right drawing

\*2 For 5 seconds at the position of 2.15 mm from the resin edge



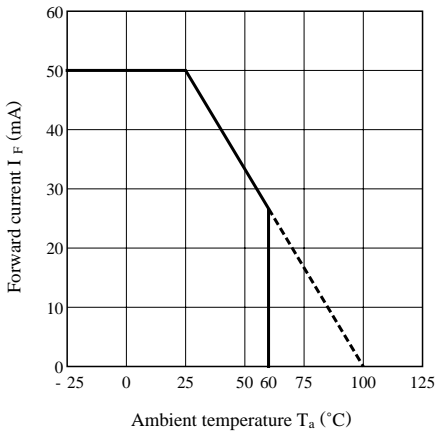
**Electro-optical Characteristics**

( $T_a=25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	$I_F = 50\text{mA}$	-	1.55	1.7	V
Peak forward voltage	$V_{FM}$	$I_{FM} = 300\text{mA}, t = 10\text{ms}$	-	1.7	1.95	V
Reverse current	$I_R$	$V_R = 1\text{V}$	-	-	100	$\mu\text{A}$
Radiant flux	${}^*3 \Phi_e$	$I_{FM} = 300\text{mA}, t = 10\text{ms}$	4.2	9	-	mW
Peak emission wavelength	$\lambda_p$	$I_F = 50\text{mA}$	-	850	-	nm
Half intensity wavelength	$\Delta \lambda$	$I_F = 50\text{mA}$	-	35	-	nm
Half intensity angle	$\Delta \theta$	$I_F = 50\text{mA}$	-	$\pm 32$	-	$^\circ$
Terminal capacitance	$C_t$	$V_R = 0, f = 1\text{MHz}$	-	80	-	pF

\*3 Emission output to effective angle  $\pm 25^\circ$

**Fig. 1 Forward Current vs. Ambient Temperature**



**Fig. 2 Peak Forward Current vs. Duty Ratio**

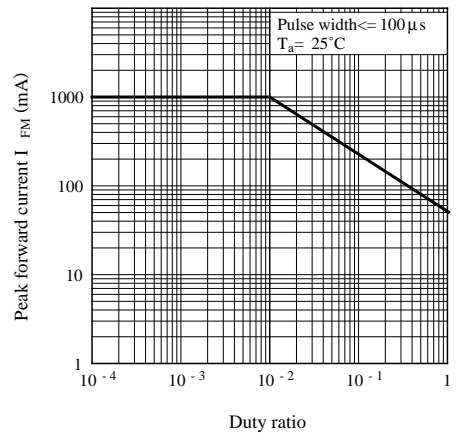


Fig. 3 Spectral Distribution

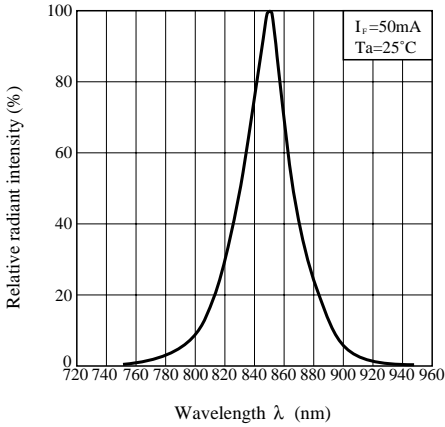


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

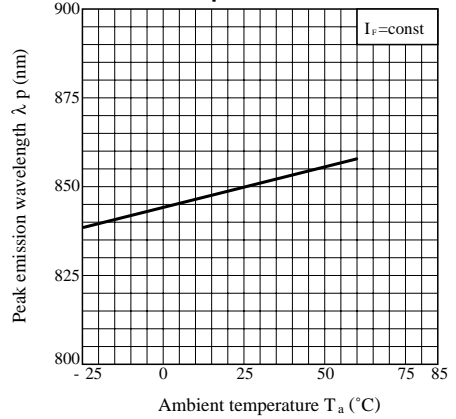


Fig. 5 Forward Current vs. Forward Voltage

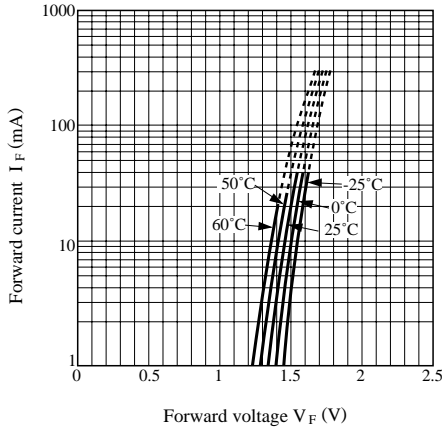


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

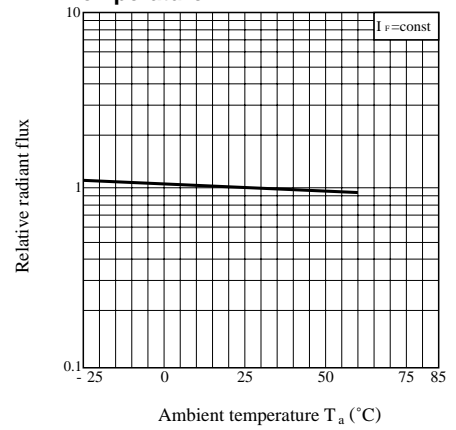


Fig. 7 Radiant Flux vs. Forward Current

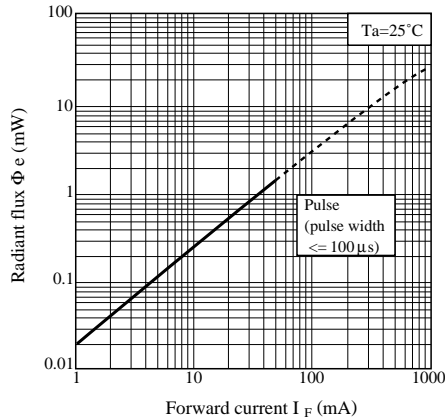


Fig. 8 Relative Radiant Intensity vs. Distance

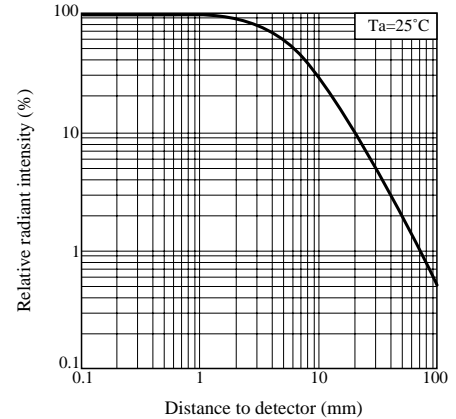
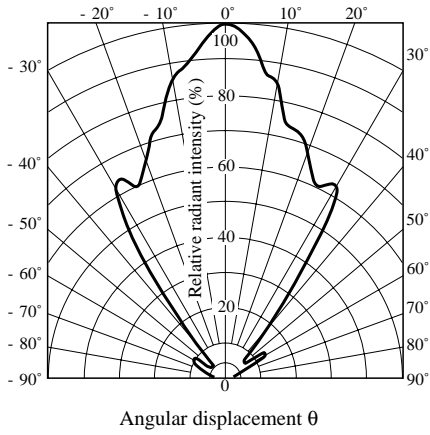


Fig. 9 Radiation Diagram

 $(T_a = 25^\circ\text{C})$ 

- Please refer to the chapter "Precautions for Use". (Page 78 to 93)

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    - Gas leakage sensor breakers
    - Alarm equipment
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