

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. ϕ 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)

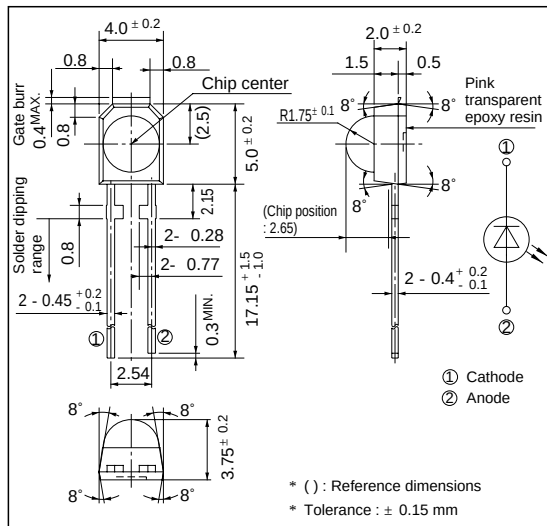
* Expansion range on lens surface of infrared emitted from chips

■ Applications

1. Cameras

■ Outline Dimensions

(Unit : mm)



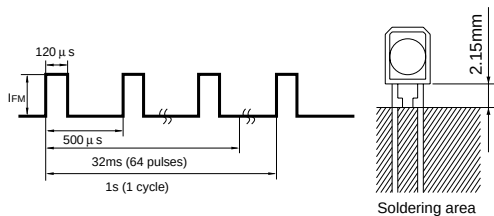
■ Absolute Maximum Ratings

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

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

(Ta=25 °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	μA
Radiant flux	$^{*3} \Phi_e$	$I_{FM} = 300\text{mA}$, $t = 10\text{ms}$	4.2	9	-	mW
Peak emission wavelength	λ_p	$I_F = 50\text{mA}$	-	850	-	nm
Half intensity wavelength	$\Delta \lambda$	$I_F = 50\text{mA}$	-	35	-	nm
Half intensity angle	$\Delta \theta$	$I_F = 50\text{mA}$	-	± 32	-	°
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

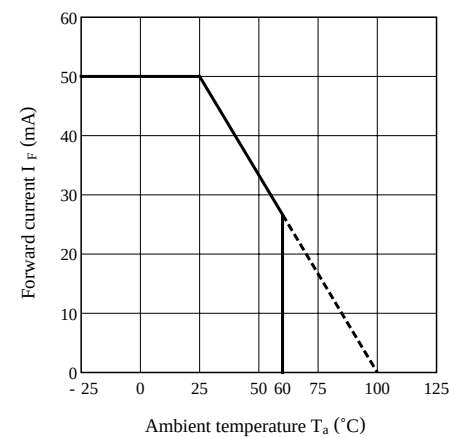


Fig. 2 Peak Forward Current vs. Duty Ratio

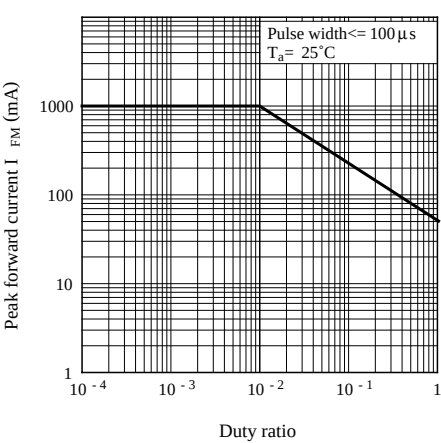


Fig. 3 Spectral Distribution

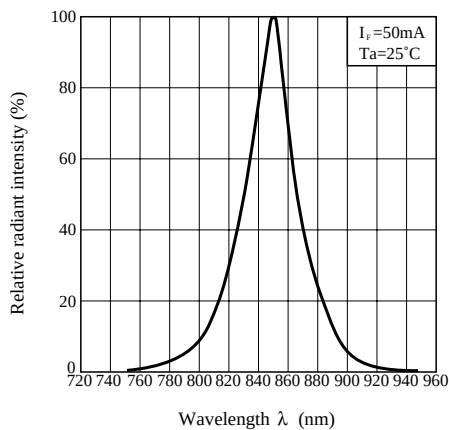


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

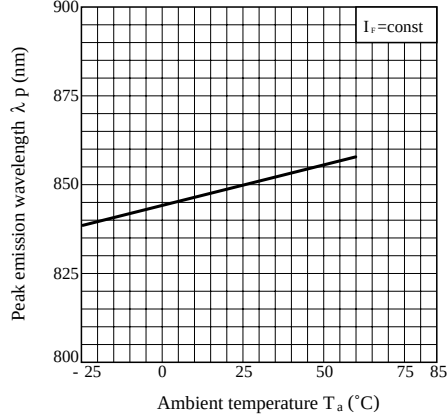


Fig. 5 Forward Current vs. Forward Voltage

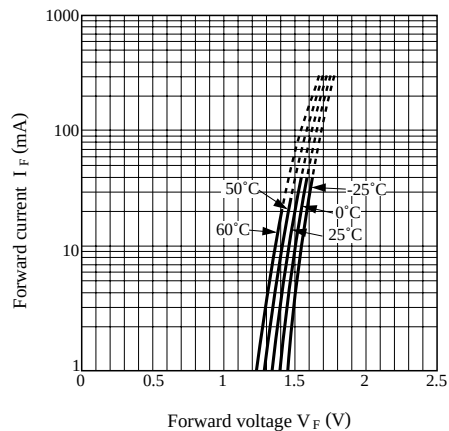


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

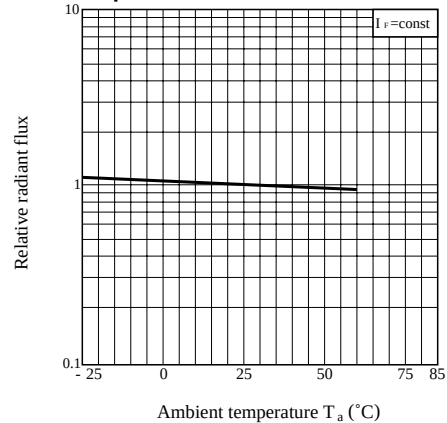


Fig. 7 Radiant Flux vs. Forward Current

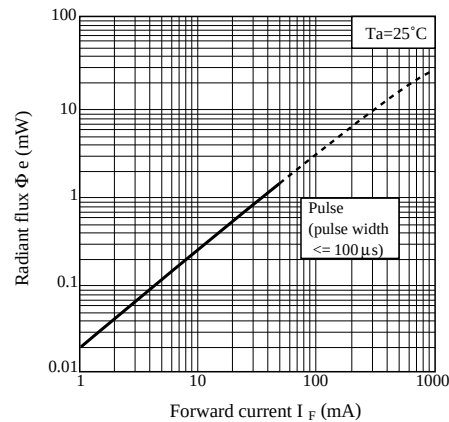


Fig. 8 Relative Radiant Intensity vs. Distance

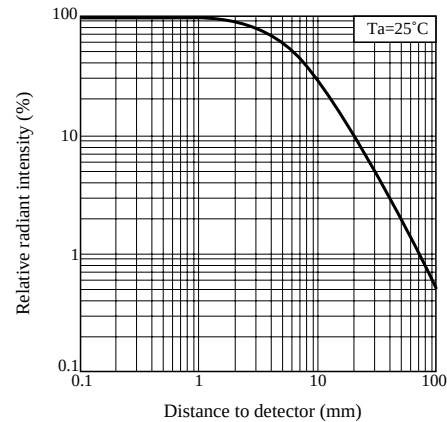
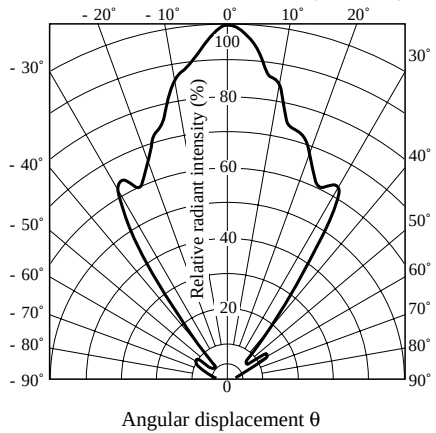


Fig. 9 Radiation Diagram (T_a = 25°C)



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

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 - Alarm equipment
 - Various safety devices, etc.
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