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)

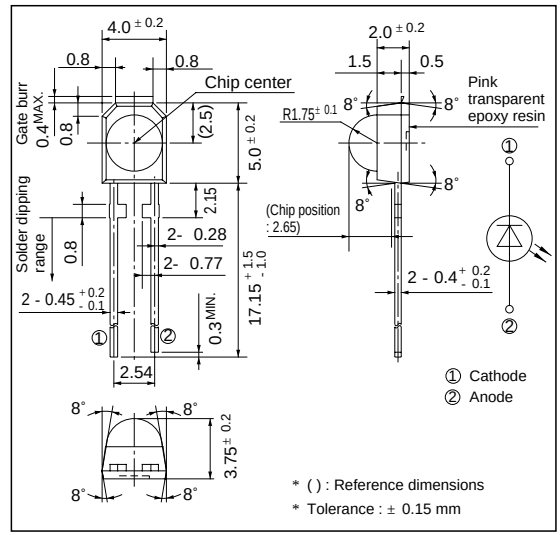
* Expansion range on lens surface of infrared emitted from chips

■ Applications

1. Cameras

■ Outline Dimensions

(Unit : mm)



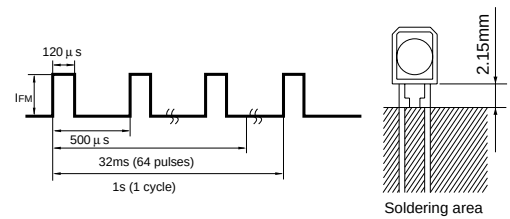
■ Absolute Maximum Ratings

(Ta=25˚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	˚C
Storage temperature	T_{stg}	- 40 to + 85	˚C
*2 Soldering temperature	T_{sol}	260	˚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 = 50mA	-	1.55	1.7	V
Peak forward voltage	V_{FM}	I_{FM} = 300mA, t = 10ms	-	1.7	1.95	V
Reverse current	I_R	V_R = 1V	-	-	100	μA
Radiant flux	*3 Φ_e	I_{FM} = 300mA, t = 10ms	4.2	9	-	mW
Peak emission wavelength	λ_p	I_F = 50mA	-	850	-	nm
Half intensity wavelength	$\Delta\lambda$	I_F = 50mA	-	35	-	nm
Half intensity angle	$\Delta\theta$	I_F = 50mA	-	±32	-	˚
Terminal capacitance	C_t	V_R = 0, f = 1MHz	-	80	-	pF

*3 Emission output to effective angle ± 25˚

Fig. 1 Forward Current vs. Ambient Temperature

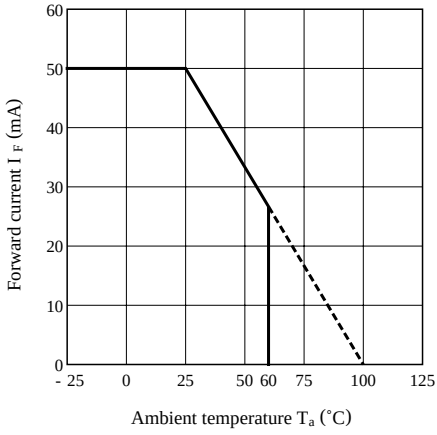


Fig. 2 Peak Forward Current vs. Duty Ratio

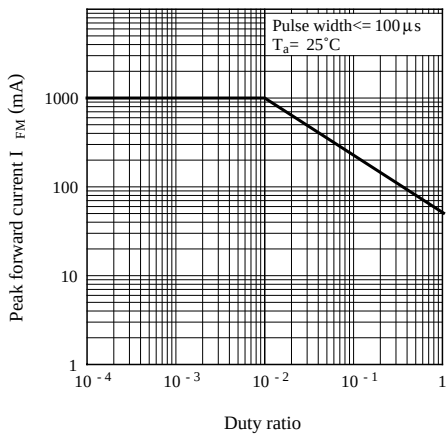


Fig. 3 Spectral Distribution

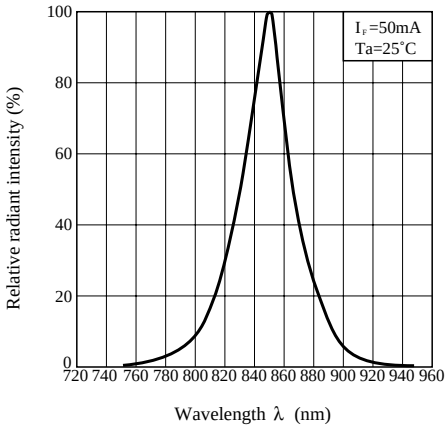


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

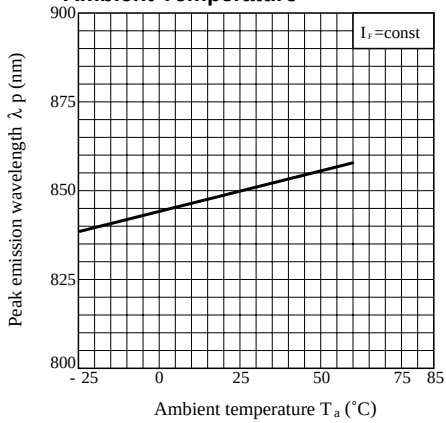


Fig. 5 Forward Current vs. Forward Voltage

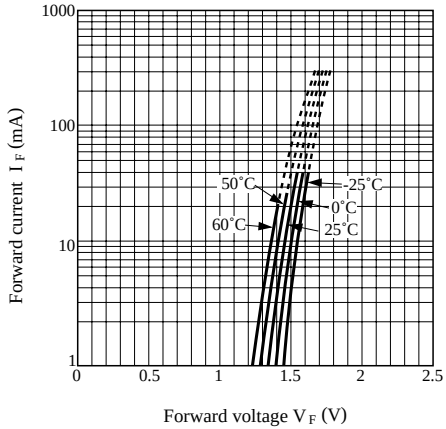


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

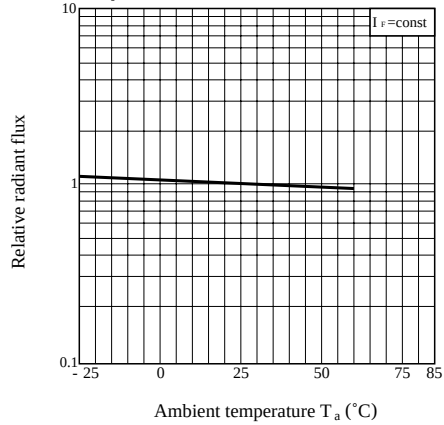


Fig. 7 Radiant Flux vs. Forward Current

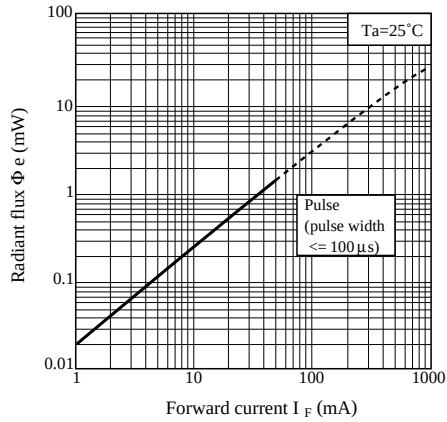


Fig. 8 Relative Radiant Intensity vs. Distance

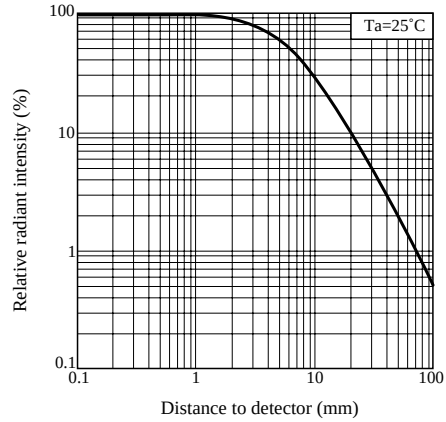
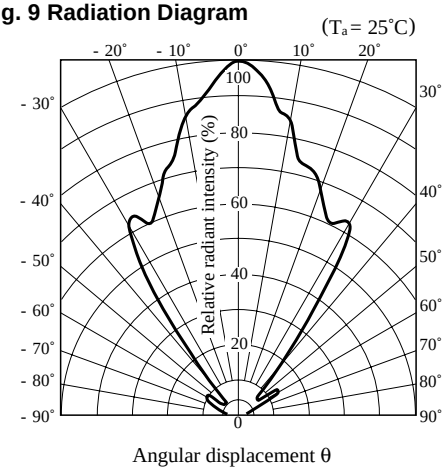


Fig. 9 Radiation Diagram



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