GL4100

Side View and Thin Flat Type Infrared Emitting Diode

■ Features

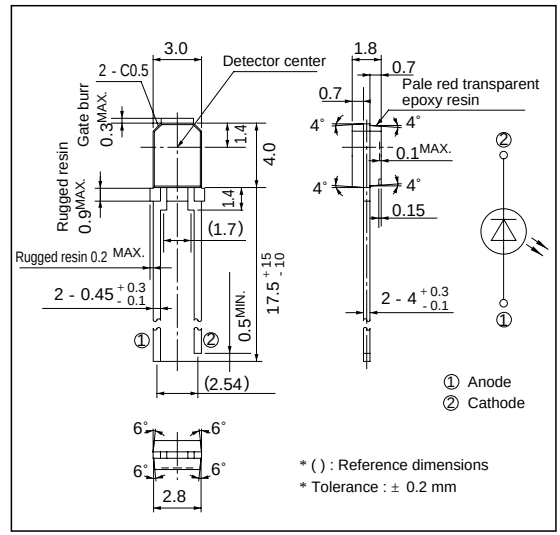
1. Compact flat package
2. Wide beam angle
   (Half intensity angle : ± 90˚)

■ Applications

1. Mouses
2. Track balls

■ Outline Dimensions

(Unit : mm)



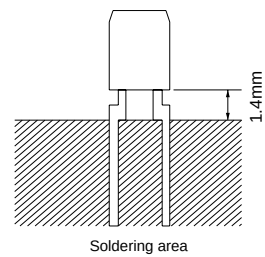
■ Absolute Maximum Ratings

(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	6	V
Power dissipation	P	75	mW
Operating temperatur	T_{opr}	- 25 to + 85	˚C
Storage temperature	T_{stg}	- 40 to + 85	˚C
*2 Soldering temperature	T_{sol}	260	˚C

* 1 Pulse width <=100μ s, Duty ratio=0.01

* 2 For 5 seconds at the position of 1.4 mm from the resin edge



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■ Electro-optical Characteristics

(Ta=25˚C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	I_F = 20mA	-	1.2	1.4	V
Peak forward voltage	V_{FM}	I_{FM} = 0.5A	-	3.0	4.0	V
Reverse current	I_R	V_R = 3V	-	-	10	μA
Radiant flux	Φ_e	I_F = 20mA	1.0	-	2.0	mW
Peak emission wavelength	λ_p	I_F = 5mA	-	950	-	nm
Half intensity wavelength	$\Delta\lambda$	I_F = 5mA	-	45	-	nm
Terminal capacitance	C_t	V_R = 0, f= 1MHz	-	50	-	pF
Response frequency	f_c	-	-	300	-	kHz
Half intensity angle	$\Delta\theta$	I_F = 20mA	-	± 90	-	˚

Fig. 1 Forward Current vs. Ambient Temperature

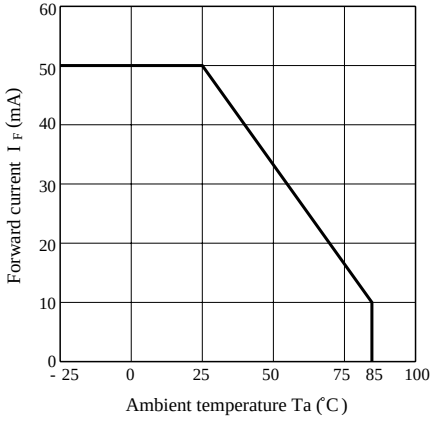


Fig. 2 Peak Forward Current vs. Duty Ratio

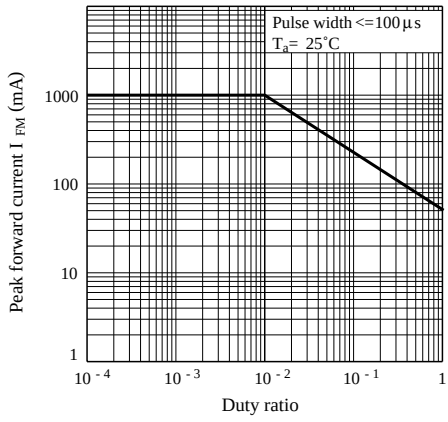


Fig. 3 Spectral Distribution

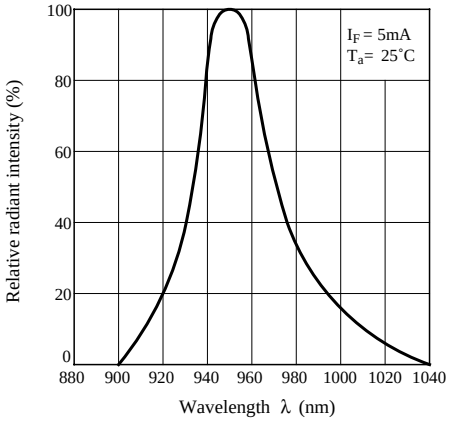


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

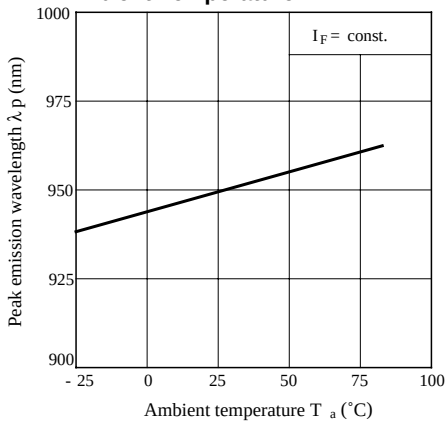


Fig. 5 Forward Current vs. Forward Voltage

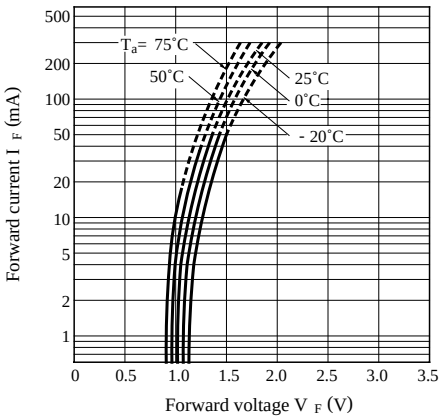


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

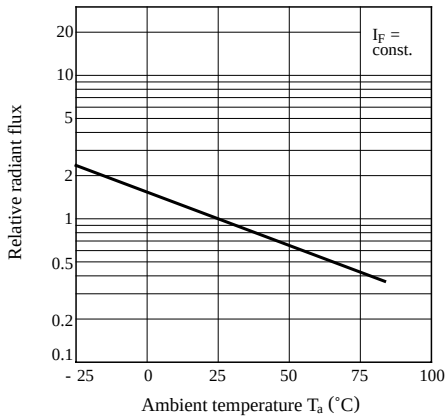


Fig. 7 Radiant Flux vs. Forward Current

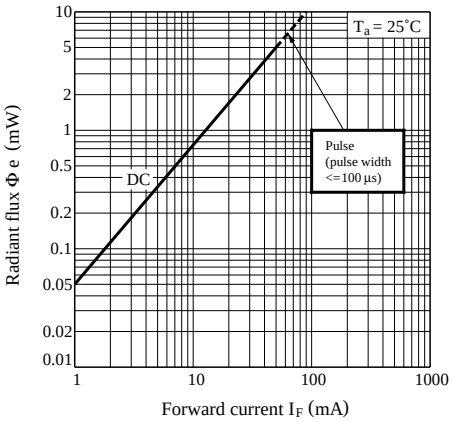


Fig. 8 Relative Radiant Intensity vs. Distance

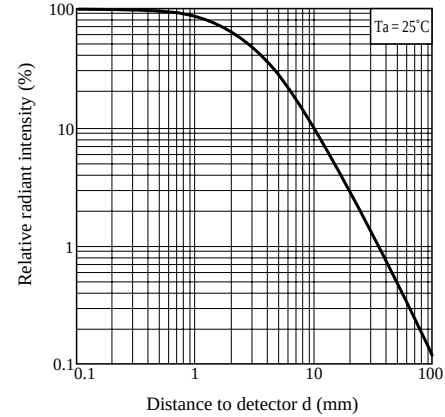


Fig. 9 Relative Radiant Intensity vs. Distance (Detector : PT4110)

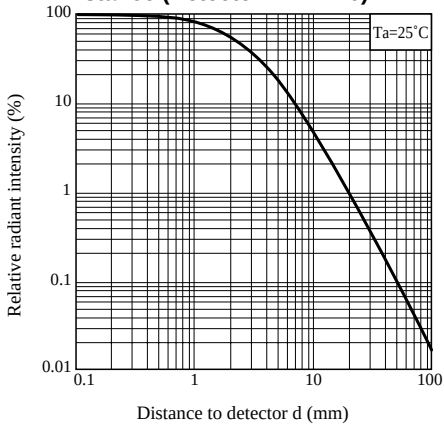
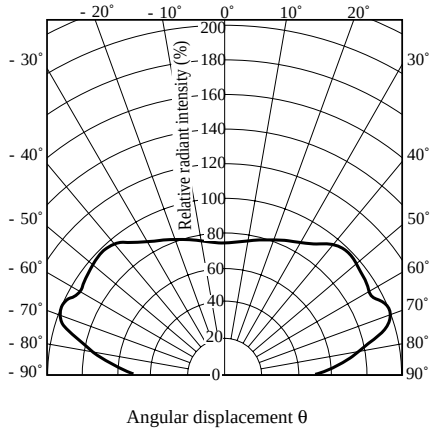


Fig. 10 Radiation Diagram (Ta=25˚C)



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

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- Industrial control
- Audio visual equipment
- Consumer electronics

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- Traffic signals
- Gas leakage sensor breakers
- Alarm equipment
- Various safety devices, etc.

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