

GL4100

Side Emission, Flat Type Infrared Emitting Diode

■ Features

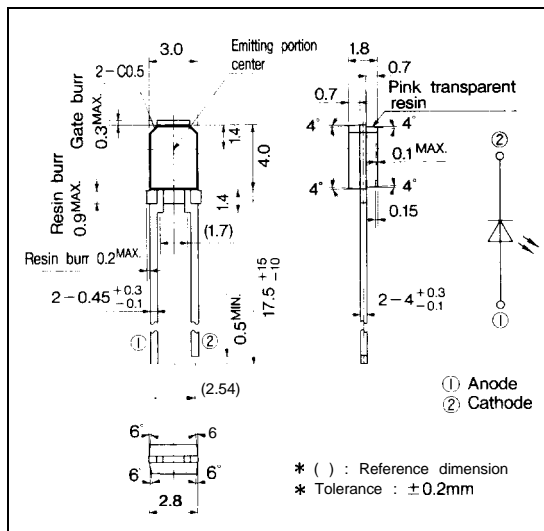
1. Compact flat package
(Volume : 1/3 or less, compared with GL410)
2. Wide beam angle
($\Delta\theta$: TYP. $\pm 90^\circ$)

■ Applications

1. Mouses/track balls

■ Outline Dimensions

(Unit : mm)



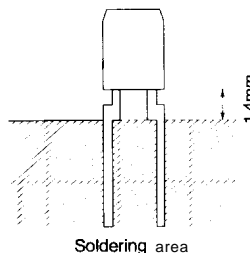
3
 Infrared Emitting Diodes

■ 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 temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-40 to +85	°C
*2 Soldering temperature	T_{sol}	260	°C

*1 Pulse width : 100 μs , Duty ratio : 0.01

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



Soldering area

■ **Electro-optical Characteristics**

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

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

Fig. 1 Forward Current vs. Ambient Temperature

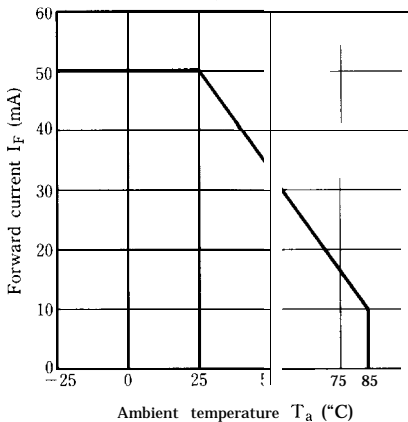
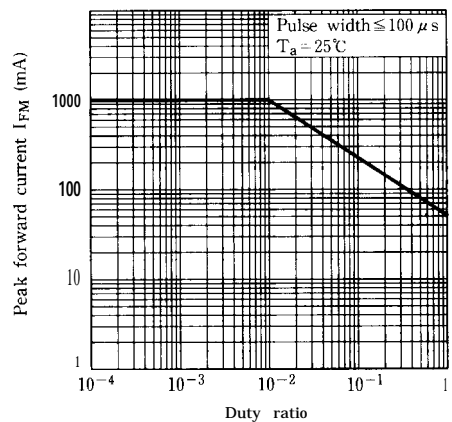


Fig. 2 Peak Forward Current vs. Duty Ratio



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