GL4600/GL4610

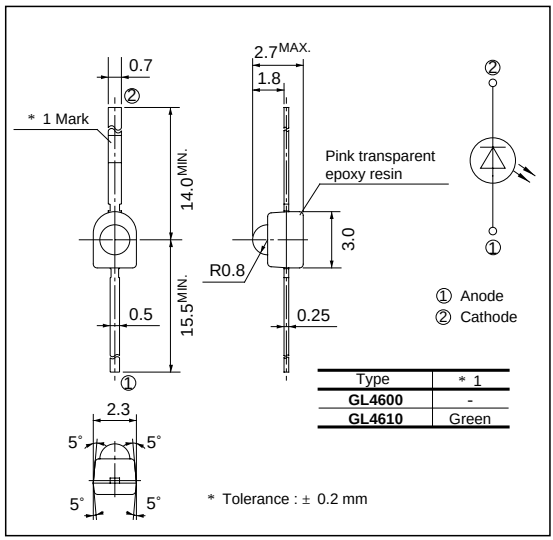
Double Ended Mold Type Infrared Emitting Diode

■ Features

1. Compact double ended mold package
   (Packaging area : 37% smaller than **GL480**)
2. Narrow beam angle (Half intensity angle : ± 13˚)
   (Radiant intensity : 3 times as large as **GL460**)
3. High output type (**GL4610**)
4. Taped model, 2,000 pieces/reel

■ Outline Dimensions

(Unit : mm)



Type	* 1
GL4600	-
GL4610	Green

■ Applications

1. Floppy disk drives
2. VCRs
3. Audio equipment
4. Video-movie kits

■ Absolute Maximum Ratings

(Ta=25˚C)

Parameter	Symbol	Rating	Unit
Forward current	I_F	50	mA
*1Peak forward current	I_{FM}	1	A
Reverse voltage	V_R	6	V
Power dissipation	P	150	mW
Operating temperature	T_{opr}	- 20 to + 85	˚C
Storage temperature	T_{stg}	- 40 to + 85	˚C
*2Soldering temperature	T_{sol}	260	˚C

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

*2 For MAX. 3 seconds at the position of 2.5 mm from the resin edge

■ Electro-optical Characteristics

(Ta=25 ˚C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage		V_F	I_F = 20mA	-	1.2	1.5	V
Peak forward voltage		V_{FM}	I_{FM} = 0.5A	-	2.2	4.0	V
Reverse current		I_R	V_R = 3V	-	-	10	μA
Terminal capacitance		C_t	V_R = 0, F = 1MHz	-	15	-	pF
Response frequency		f_c	-	-	300	-	kHz
Radiant flux	**GL4600**	Φ_e	I_F = 20mA	1.0	-	4.0	mW
	GL4610			1.8	-	7.2	
Peak emission wavelength		λ_p	I_F = 5mA	-	950	-	nm
Half intensity wavelength		$\Delta\lambda$	I_F = 5mA	-	45	-	nm
Half intensity angle		$\Delta\theta$	I_F = 20mA	-	± 13	-	°

Fig. 1 Forward Current vs. Ambient Temperature

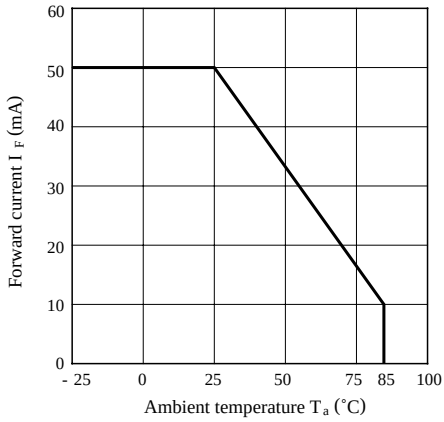


Fig. 2 Peak Forward Current vs. Duty Ratio

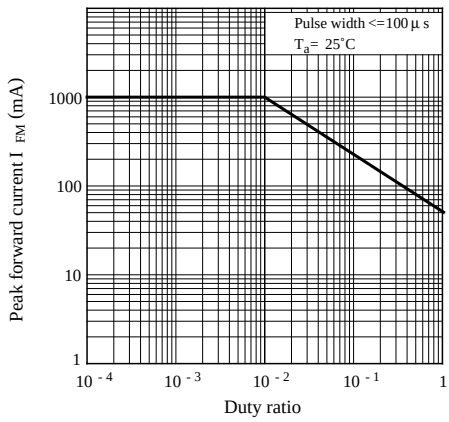


Fig. 3-a Spectral Distribution (GL4600)

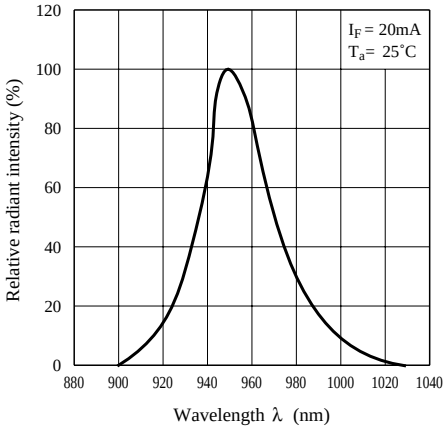


Fig. 3-b Spectral Distribution (GL4610)

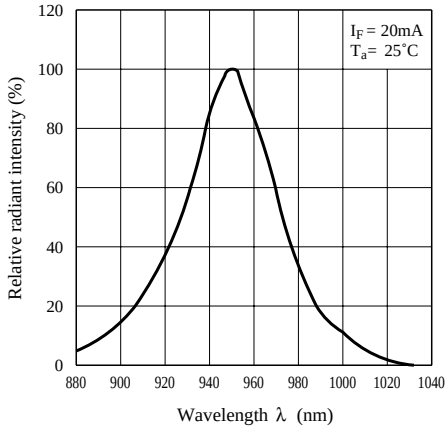


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

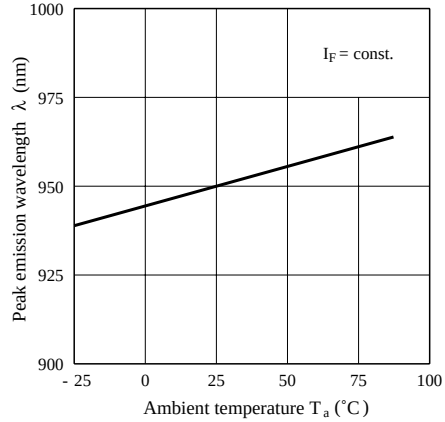


Fig. 5 Forward Current vs. Forward Voltage

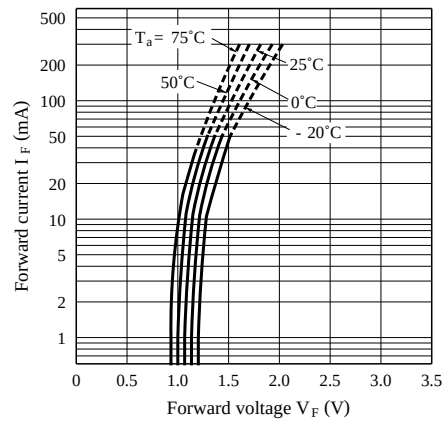


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

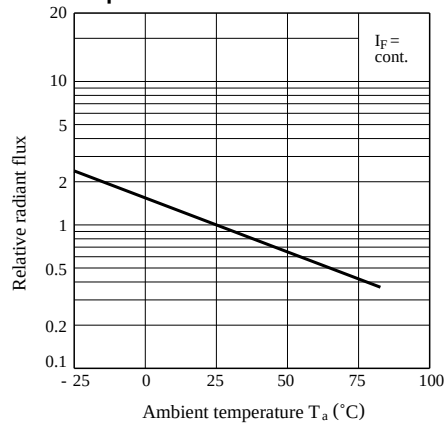


Fig. 7 Radiant Flux vs. Forward Current (GL4600/GL4610)

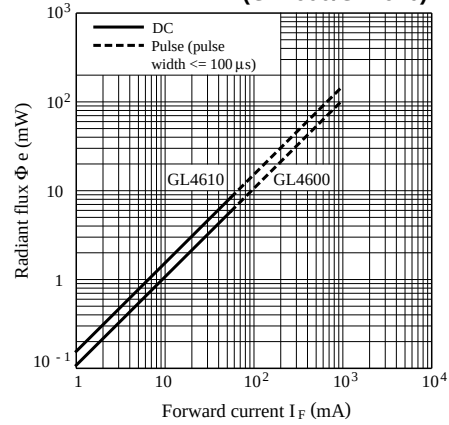


Fig. 8 GL4600 Relative Radiant Intensity vs. Distance

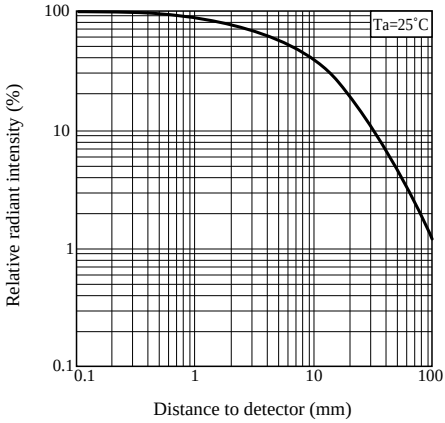


Fig. 9 GL4600 Relative Radiant Intensity vs. Distance (Detector : PT4600)

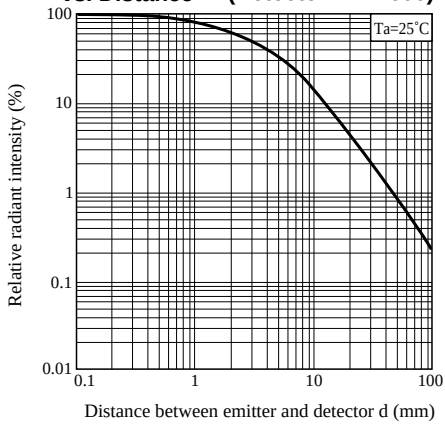
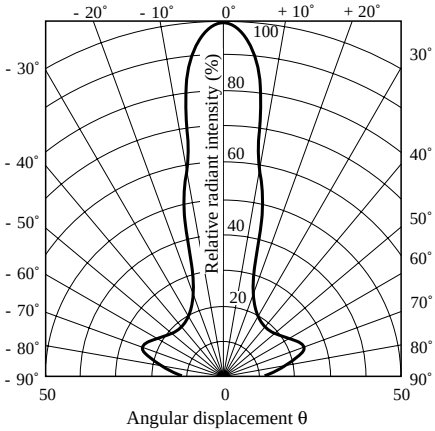


Fig. 10 Radiation Diagram



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