

GL550/GL551

High Speed Response Infrared Emitting Diode

Features

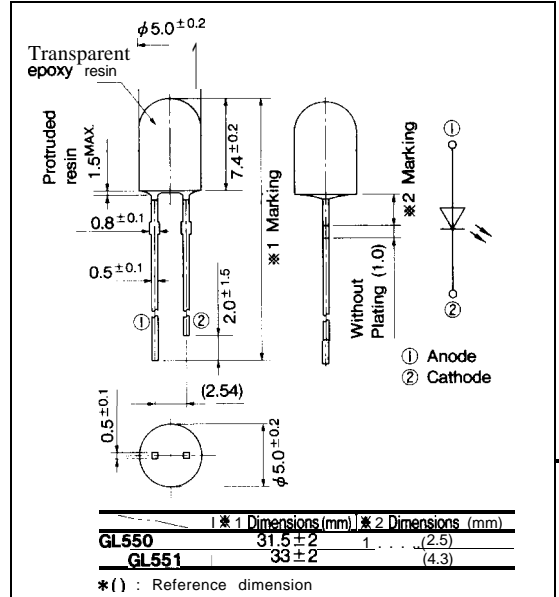
1. High speed response
fc:TYP. 12 MHz
2. Intermediate beam angle
GL550 A θ : TYP. $\pm 22^\circ$
Narrow beam angle
GL551 $\Delta\theta$: TYP. $\pm 10^\circ$
3. High output type
Output : MIN. 10mW

Applications

1. IR data communication
2. Personal computer
3. Audio equipment
4. AV equipment

Outline Dimensions

(Unit : mm)



3
 Infrared Emitting Diodes

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	unit
Forward current	IF	50	mA
*1 Peak forward current	IFM	0.5	A
Reverse voltage	VR	4	v
Power dissipation	P	140	mW
Operating temperature	Topr	-20 to +85	°C
Storage temperature	Tstg	-30 to +85	°C
*2 Soldering temperature	Tsol	260	°C

*1 Pulse width : 100 μ s, duty ratio : 0.01

*2 For MAX. 3 seconds at the position of 3.0mm from the bottom face of resin package

■ Electro-optical Characteristics

(Ta = 25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	unit
Forward voltage		V_F	$I_F = 50\text{mA}$		1.5	2.0	v
Reverse current		I_R	$V_R = 3\text{V}$	—	—	10	μA
Terminal capacitance		C_t	$V_R = 0, f = 1\text{MHz}$	—	70	—	pF
Radiant flux		Φ_e	$I_F = 50\text{mA}$	10	—	35	mW
Peak emission wavelength		λ_p	$I_F = 50\text{mA}$	—	880	—	nm
Spectrum radiation bandwidth		$\Delta\lambda$	$I_F = 50\text{mA}$	—	40	—	nm
Half intensity angle	GL550	$\Delta\theta$	$I_F = 50\text{mA}$	—	± 22		
	GL551				± 10		
Cut-off frequency		*3f_c	$I_F = 50\text{mA}$ $+ 10\text{mA}_{p-p}$		12	—	MHz

*3 The value when modulation radiant flux drops 3dB from the reference ($f = 100\text{kHz}$)

1 Forward Current vs. Ambient Temperature

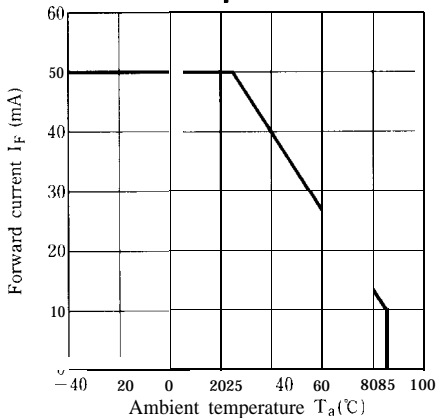
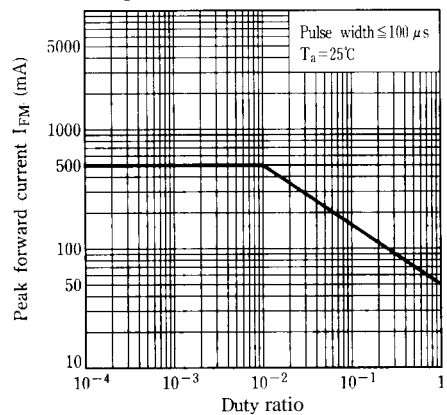


Fig. 2 Peak Forward Current vs. Duty Ratio



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