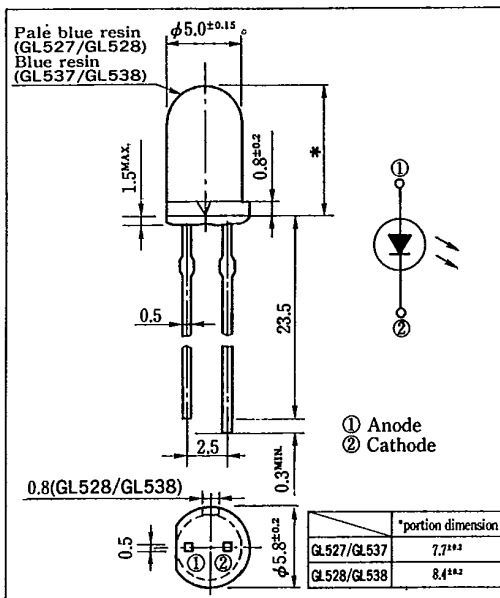


T-41-11

(Unit : mm)

1. Infrared remote controllers for TVs, VCRs, audio equipment and air conditioners



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

Parameter	Symbol	Rating	Unit
Power dissipation	P	150	mW
Forward current	I _F	100	mA
*1 Peak forward current	I _{FM}	1	A
Reverse voltage	V _R	6	V
Operating temperature	T _{opr}	-25 ~ +85	°C
Storage temperature	T _{stg}	-40 ~ +85	°C
*2 Soldering temperature	T _{sol}	260	°C

*1 Pulse width $\leq 100\mu\text{s}$, Duty ratio = 0.01
*2 For 3 seconds at the position of 2.6mm from the bottom face of resin package

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

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage		V_F	$I_F = 50\text{mA}$	—	1.3	1.5	V
Peak forward voltage		V_{FM}	$I_{FM} = 0.5\text{A}$	—	1.9	3.0	V
Reverse current		I_R	$V_R = 3\text{V}$	—	—	10	μA
Terminal capacitance		C_t	$V_R = 0, f = 1\text{kHz}$	—	50	140	pF
Response frequency		f_c		—	300	—	kHz
*Radiation intensity	GL527	I_E	$I_F = 50\text{mA}$	5.0	10	—	mW/sr
	GL528			12	23	—	
	GL537			6.0	13	—	
	GL538			15	30	—	
Peak emission wavelength	GL527/GL528	λ_p	$I_F = 5\text{mA}$	—	940	—	nm
	GL537/GL538			—	950	—	
Half intensity wavelength		$\Delta\lambda$	$I_F = 5\text{mA}$	—	45	—	nm
Half intensity angle	GL527/GL537	$\Delta\theta$		—	± 25	—	deg.
	GL528/GL538			—	± 13	—	deg.

*3 I_g: Value obtained by converting the value in power of radiant fluxes emitted at the solid angle of 0.01 sr (steradian) in the direction of mechanical axis of the lens portion into 1 sr of all those emitted from the light emitting diode.

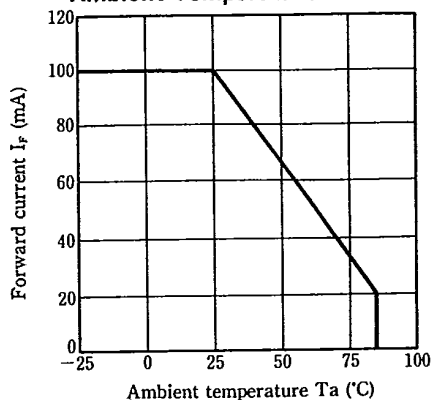
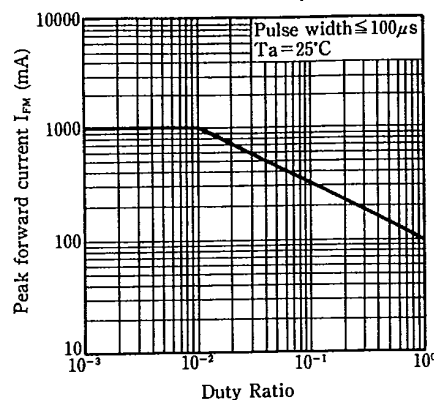
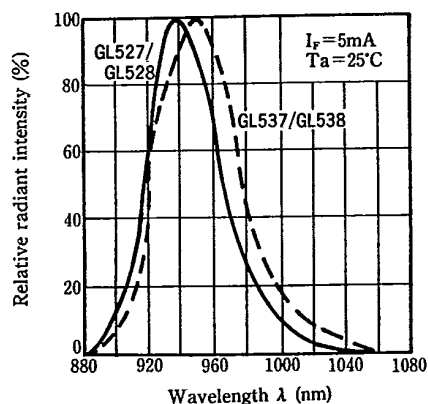
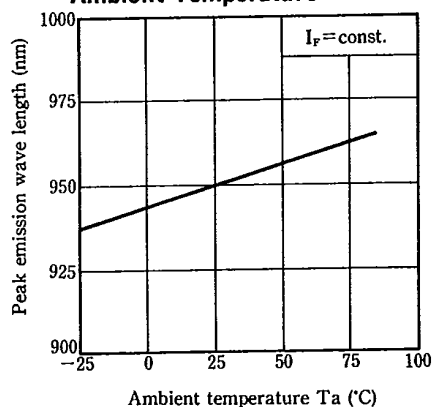
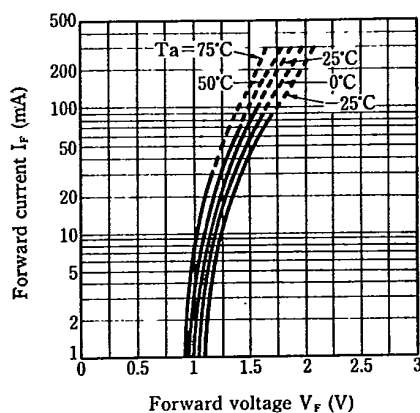
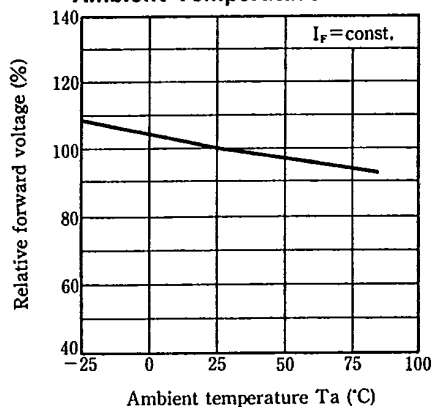
Fig. 1 Forward Current vs. Ambient Temperature**Fig. 2 Peak Forward Current vs. Duty Ratio****Fig. 3 Spectral Distribution (GL527/GL528)****Fig. 4 Peak Emission Wave length vs. Ambient Temperature****Fig. 5 Forward Current vs. Forward Voltage****Fig. 6 Relative Forward Voltage vs. Ambient Temperature**

Fig. 7 Relative Output vs. Ambient Temperature (Detector : PD410PI)

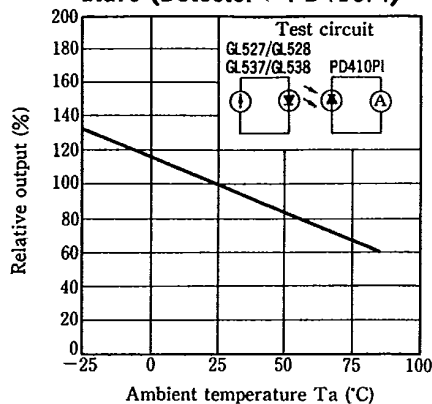


Fig. 8 Radiation Intensity vs. Peak Forward Current

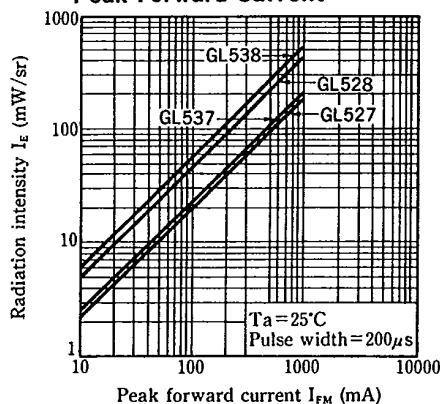


Fig. 9 Relative Collector Current vs. Distance (Detector : PD410PI) (GL527/GL537/GL528/GL538)

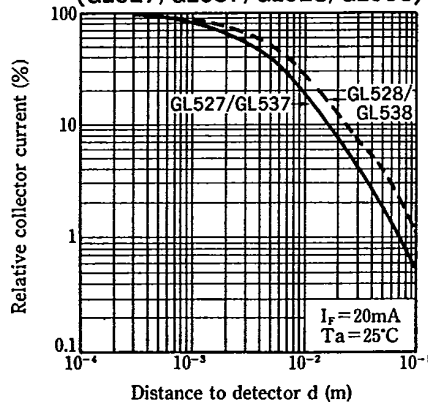


Fig. 10 Relative Collector Current vs. Distance (Detector : PD49PI) (GL527/GL537/GL528/GL538)

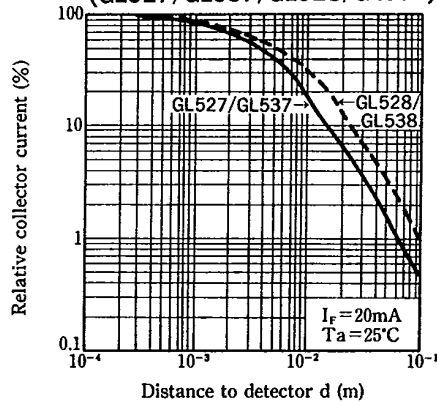


Fig. 11 Radiation Diagram (GL527/GL537) (Ta = 25°C)

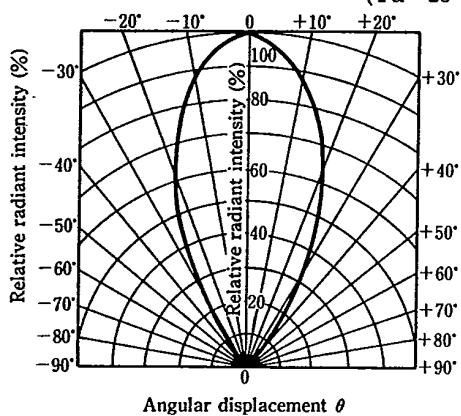


Fig. 12 Radiation Diagram (GL528/GL538) (Ta = 25°C)

