

■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Power dissipation	P	75	mW
Forward current	I _F	50	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 ≤ 100 μs, Duty ratio = 0.01
- *2 For 3 seconds at the position of 2.5mm from the bottom face of resin package (GL450/GL451/GL452)
For 3 seconds at the position of 1.8mm from the bottom face of resin package (GL453/GL454)

■ Electro-optical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Forward voltage	V _F	I _F = 20mA	GL450/GL451/GL452	—	1.2	1.4	V
			GL453/GL454	—	1.2	1.5	V
Peak forward voltage	V _{FM}	I _{FM} = 0.5A	—	3.0	4.0	V	
Reverse current	I _R	V _R = 3V	—	—	10	μA	
Terminal capacitance	C _t	V = 0, f = 1MHz	GL450/GL451/GL452	—	50	—	pF
			GL453/GL454	—	30	—	pF
Radiant flux	Φ _e	I _F = 20mA	GL450/GL451/GL452	0.7	1.0	2.0	mW
			GL453/GL454	0.7	1.0	1.6	mW
Peak emission wavelength	λ _p	I _F = 5mA	—	950	—	nm	
Half intensity wavelength	Δλ	I _F = 5mA	—	45	—	nm	

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Fig. 1 Forward Current vs. Ambient Temperature

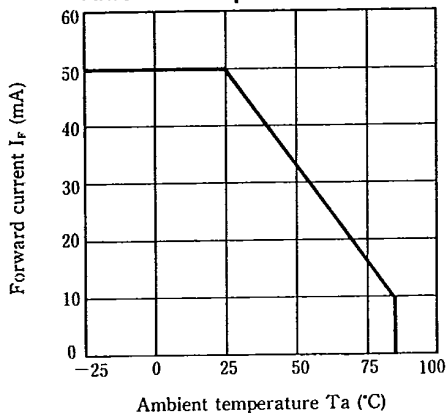
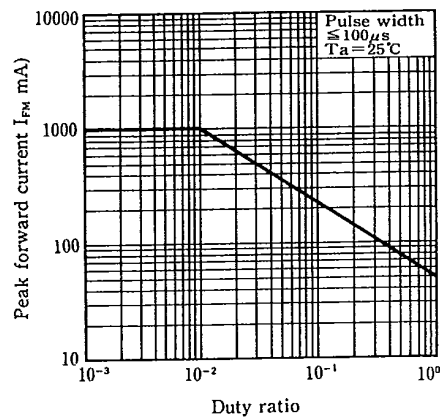


Fig. 2 Peak Forward Current vs. Duty Ratio



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Fig. 3 Spectral Distribution

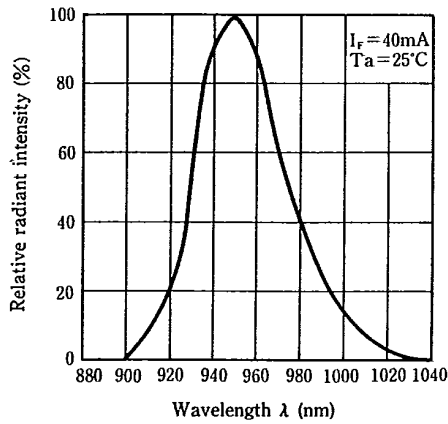


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

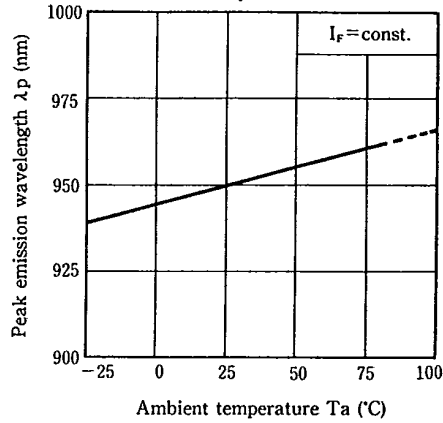


Fig. 5 Forward Current vs. Forward Voltage

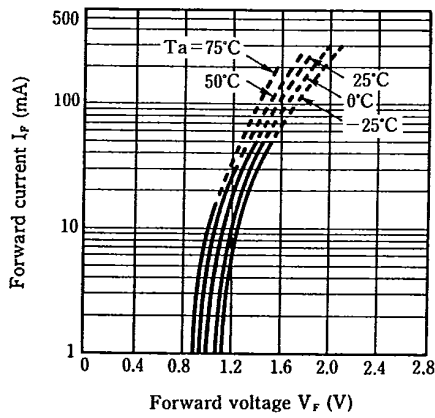


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

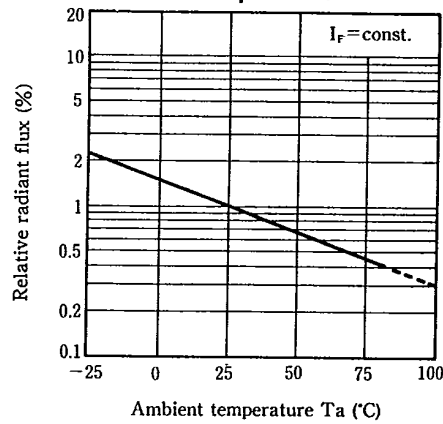


Fig. 7 Relative Radiant Flux vs. Peak Forward Current

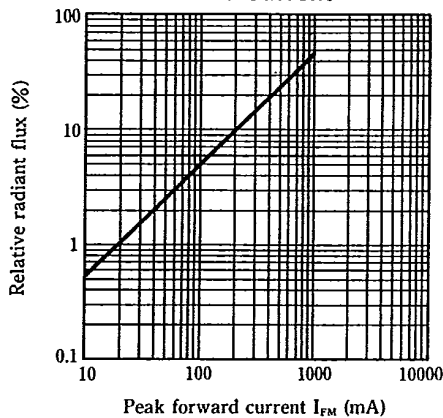


Fig. 8 Relative Radiant Intensity vs. Distance

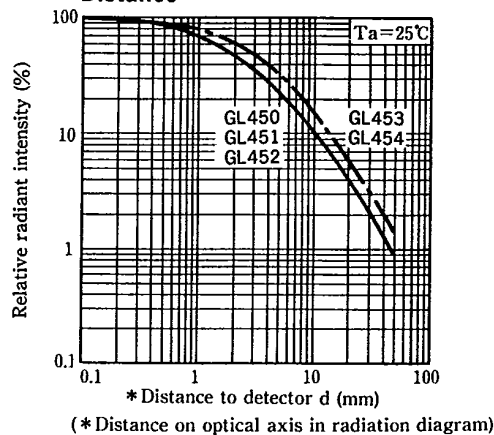
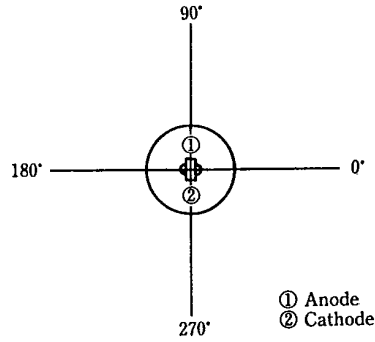
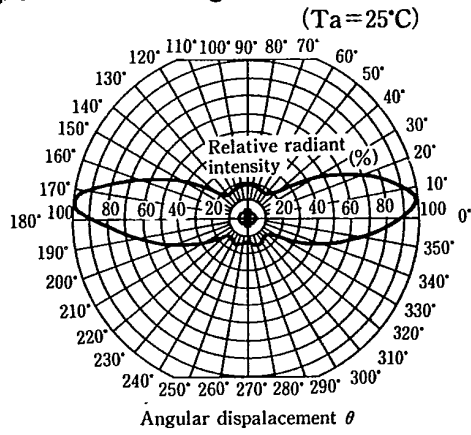


Fig. 9 Radiation Diagram

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