

GL480/GL480Q GL483Q

Infrared Emitting Diode

■ Features

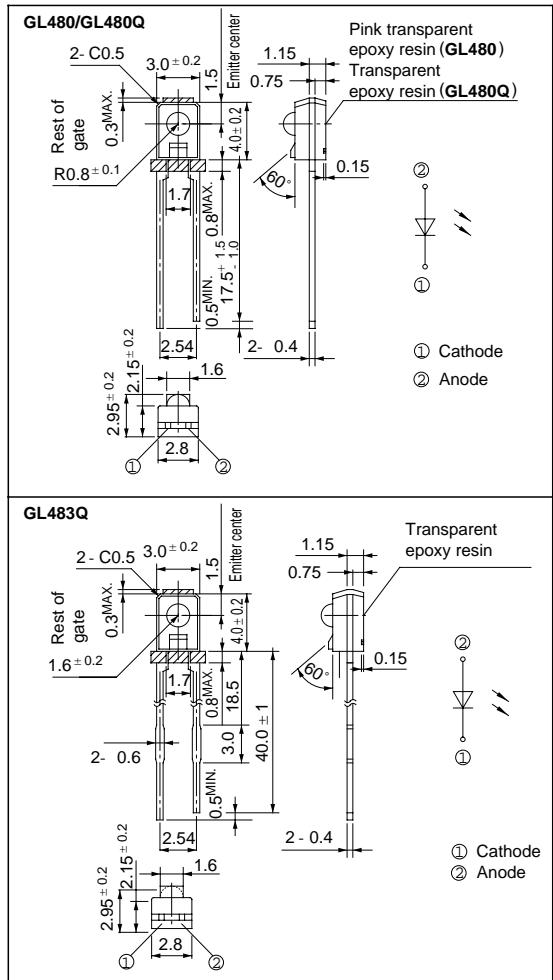
1. Narrow beam angle ($\Delta\theta$: TYP. $\pm 13^\circ$)
2. Radiant flux (Φ_e : MIN. 0.7mW at $I_F = 20\text{mA}$)
3. Compact, high reliability by chip coating (GL480Q/GL483Q)
4. Long lead type (GL483Q)

■ Applications

1. Copiers
2. Floppy disk drives
3. Optoelectronic switches

■ Outline Dimensions

(Unit : mm)



■ 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 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 3 seconds at the position of 1.4mm 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 = 20mA	-	1.2	1.4	V
Peak forward voltage	V _{FM}	I _{FM} = 0.5A	-	3.0	4.0	V
Reverse current	I _R	V _R = 3V	-	-	10	μ A
Terminal capacitance	C _t	V _R = 0, f = 1MHz	-	50	-	pF
Response frequency	f _c		-	300	-	kHz
Radiant flux	Φ e	I _F = 20mA	0.7	-	3.0	mW
Peak emission wavelength	λ _p	I _F = 5mA	-	950	-	nm
Half intensity wavelength	Δ λ	I _F = 5mA	-	45	-	nm
Half intensity angle	Δ θ	I _F = 20mA	-	± 13	-	°

Fig. 1 Forward Current vs. Ambient Temperature

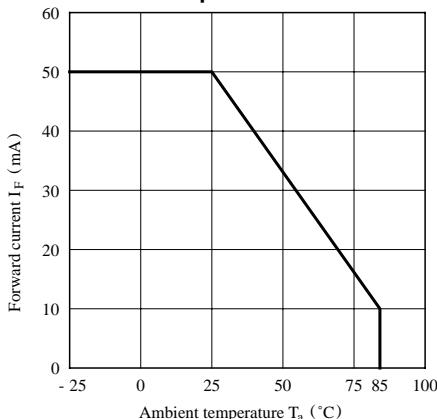


Fig. 2 Peak Forward Current vs. Duty Ratio

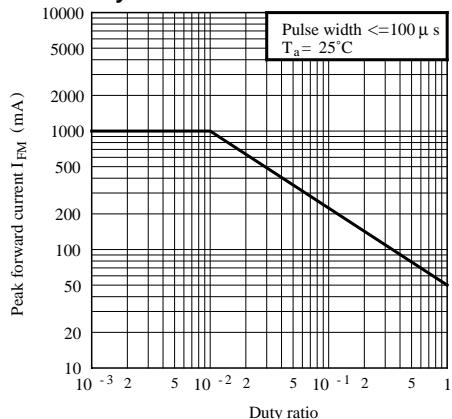


Fig. 3 Spectral Distribution

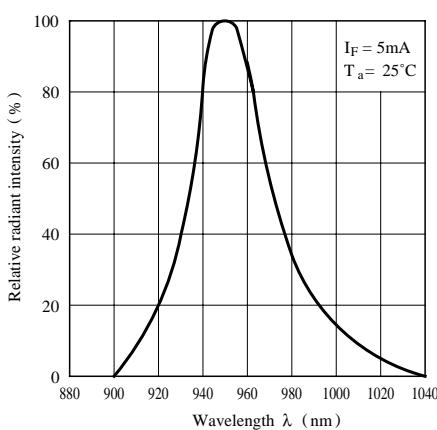


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

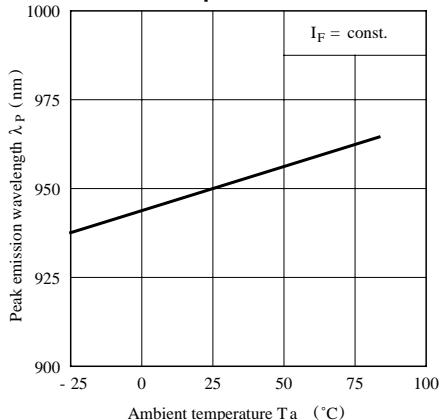


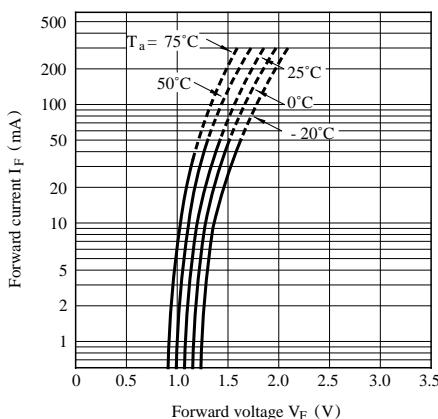
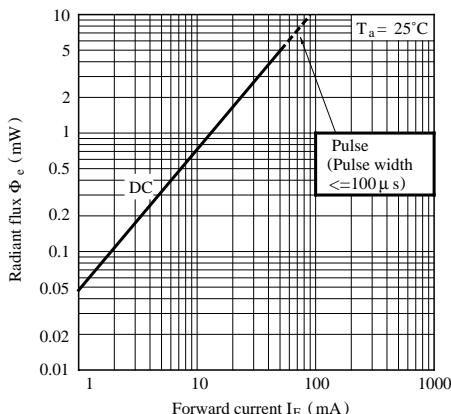
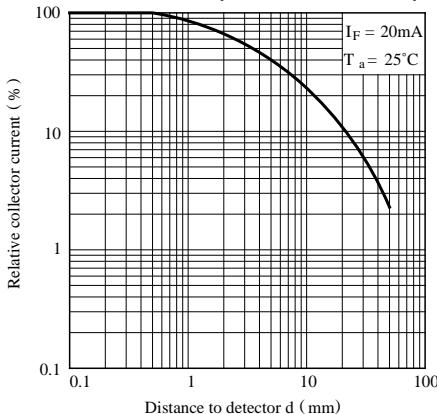
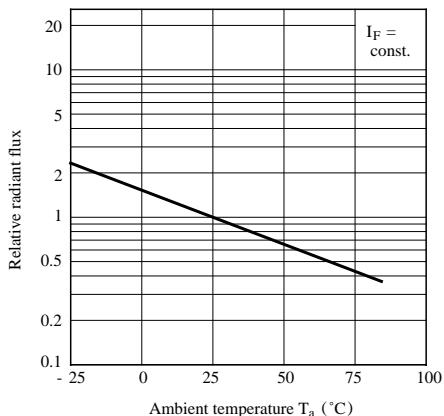
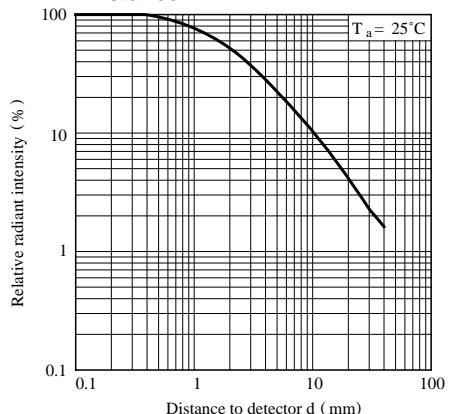
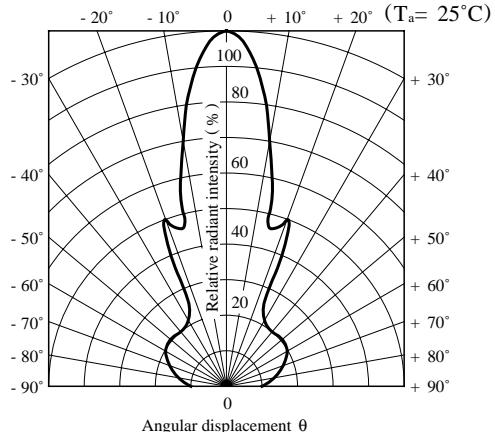
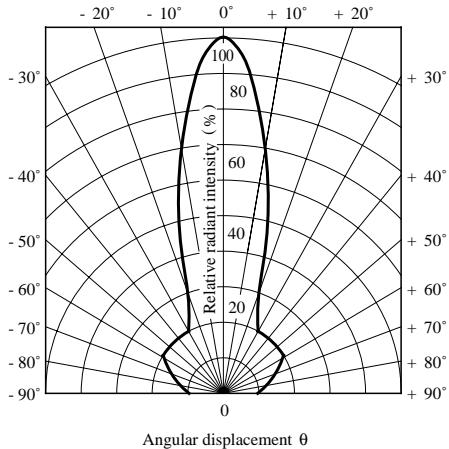
Fig. 5 Forward Current vs. Forward Voltage**Fig. 7 Radiant Flux vs. Forward Current****Fig. 9 Relative Collector Current vs. Distance (Detector : PT480)****Fig. 6 Relative Radiant Flux vs. Ambient Temperature****Fig. 8 Relative Radiant Intensity vs. Distance****Fig.10 Radiation Diagram (GL480Q/GL483Q)**

Fig.11 Radiation Diagram (GL480) ($T_a = 25^\circ\text{C}$)

- Please refer to the chapter “Precautions for Use.”