

GL480/GL480Q GL483Q

Infrared Emitting Diode

■ Features

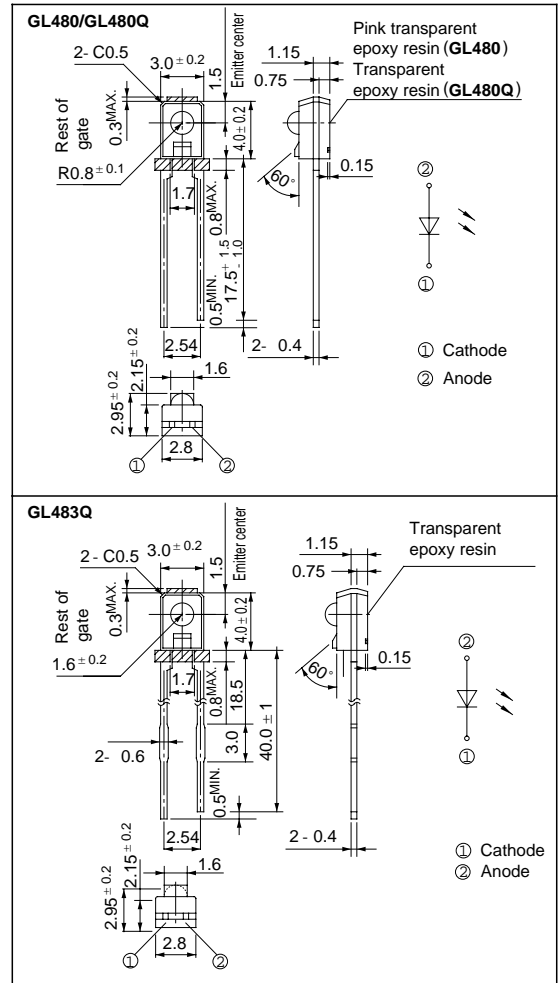
1. Narrow beam angle ($\Delta\theta$: TYP. $\pm 13^\circ$)
2. Radiant flux (Φ_e : MIN. 0.7mW at $I_F = 20\text{mA}$)
3. Compact, high reliability by chip coating
(GL480Q/GL483Q)
4. Long lead type (GL483Q)

■ 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 $\leq 100\mu\text{s}$, Duty ratio = 0.01

*2 For 3 seconds at the position of 1.4mm from the bottom face of resin package.

■ Electro-optical Characteristics

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

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	$I_F = 20\text{mA}$	-	1.2	1.4	V
Peak forward voltage	V_{FM}	$I_{FM} = 0.5\text{A}$	-	3.0	4.0	V
Reverse current	I_R	$V_R = 3\text{V}$	-	-	10	μA
Terminal capacitance	C_t	$V_R = 0, f = 1\text{MHz}$	-	50	-	pF
Response frequency	f_c	-	-	300	-	kHz
Radiant flux	Φ_e	$I_F = 20\text{mA}$	0.7	-	3.0	mW
Peak emission wavelength	λ_p	$I_F = 5\text{mA}$	-	950	-	nm
Half intensity wavelength	$\Delta\lambda$	$I_F = 5\text{mA}$	-	45	-	nm
Half intensity angle	$\Delta\theta$	$I_F = 20\text{mA}$	-	± 13	-	$^\circ$

Fig. 1 Forward Current vs. Ambient Temperature

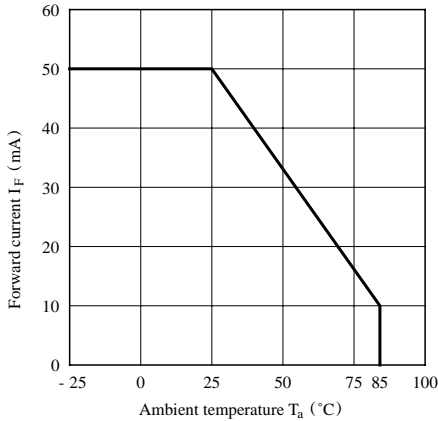


Fig. 2 Peak Forward Current vs. Duty Ratio

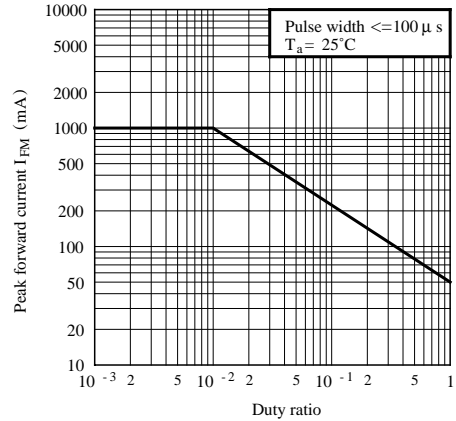


Fig. 3 Spectral Distribution

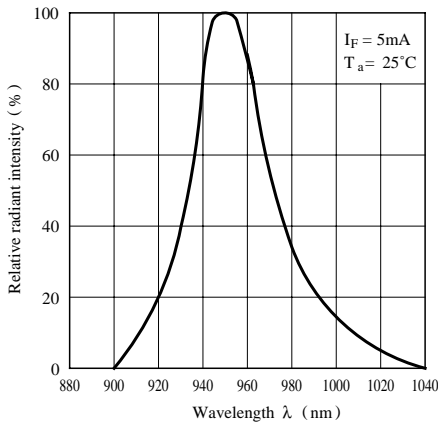


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

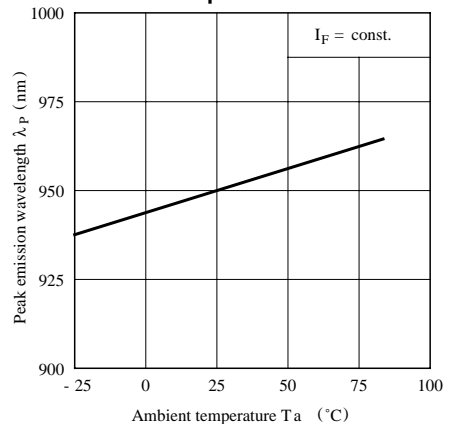


Fig. 5 Forward Current vs. Forward Voltage

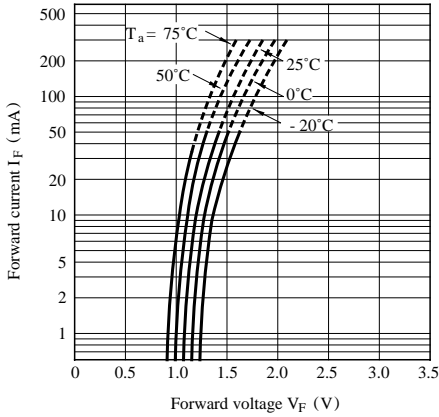


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

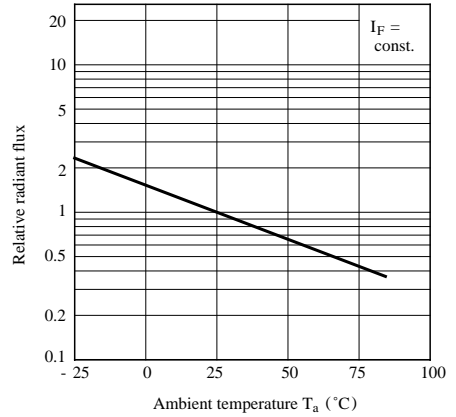


Fig. 7 Radiant Flux vs. Forward Current

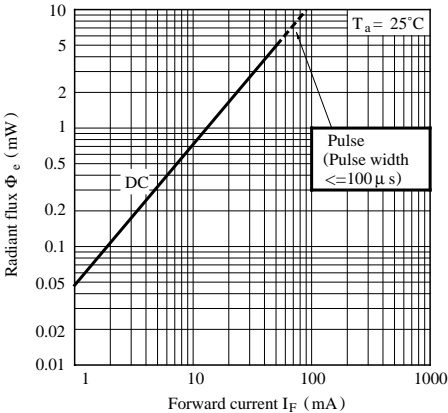


Fig. 8 Relative Radiant Intensity vs. Distance

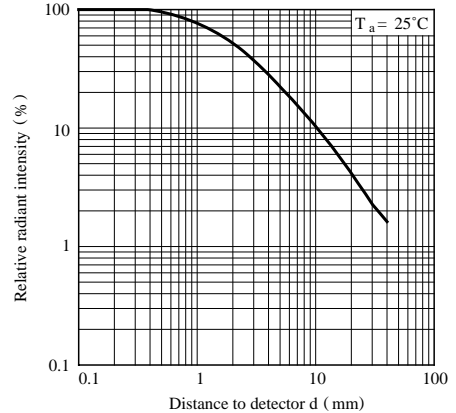


Fig. 9 Relative Collector Current vs. Distance (Detector : PT480)

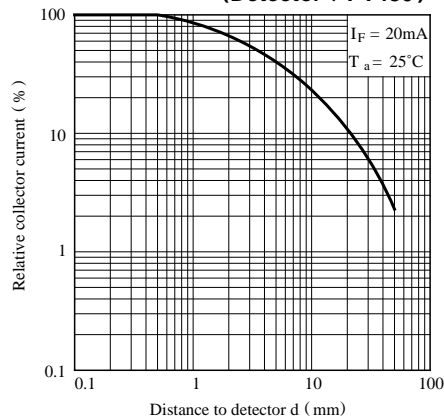


Fig.10 Radiation Diagram (GL480Q/GL483Q)

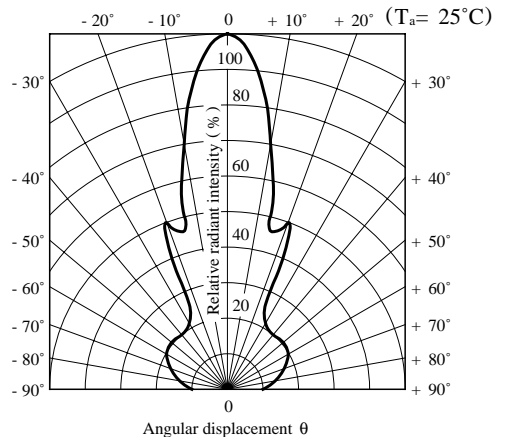
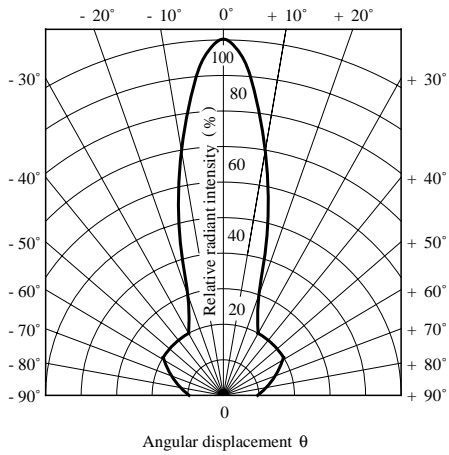


Fig.11 Radiation Diagram (GL480) ($T_a = 25^\circ\text{C}$)

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