GL460/GL461

Double Ended Mold Type Infrared Emitting Diode

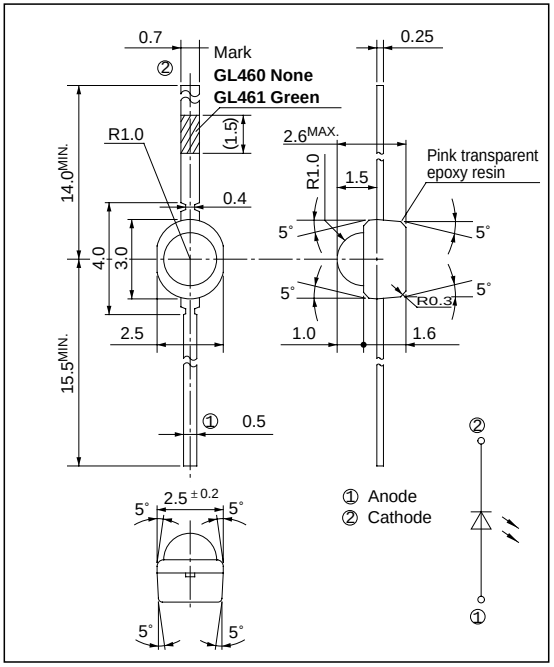
■ Features

1. Small double-end type package
   (packaging area : 37% smaller than **GL480**)
2. High output power type (**GL461**)
3. Taped models 2,000pcs/reel (**GL460T** / **GL461T**)

■ Applications

1. Floppy disk drives
2. VCRs
3. Audio equipment

■ Outline Dimensions (Unit : mm)



■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Power dissipation	P	150	mW
Forward current	I_F	50	mA
*1Peak 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
*2Soldering temperature	T_{sol}	260	°C

*1 Pulse width <=100 μ s, Duty ratio = 0.01
*2 For MAX. 3 seconds at the position of 2.5mm 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	1.5	V
Peak forward voltage		V_{FM}	I_{FM}= 0.5A	-	2.2	4.0	V
Reverse current		I_R	V_R= 3V	-	-	10	μ A
Terminal capacitance		C_t	V_R= 0V, f= 1MHz	-	20	-	pF
Response frequency		f_c	-	-	300	-	kHz
Radiant flux	**GL460**	Φ e	I_F= 20mA	1.0	-	4.0	mW
	GL461			1.8	-	7.2	
Peak emission wavelength		λ P	I_F= 5mA	-	950	-	nm
Half intensity wavelength		Δλ	I_F= 5mA	-	45	-	nm
Half intensity angle		Δθ	I_F= 20mA	-	± 40	-	°

Fig. 1 Forward Current vs. Ambient Temperature

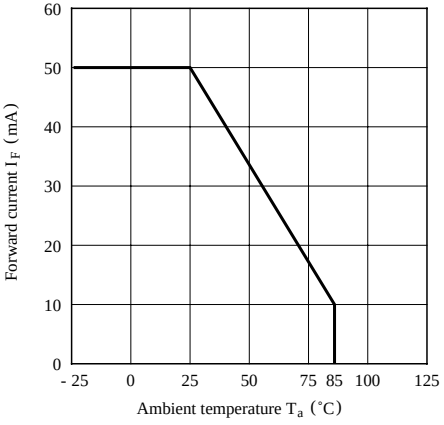


Fig. 2 Peak Forward Current vs. Duty Ratio

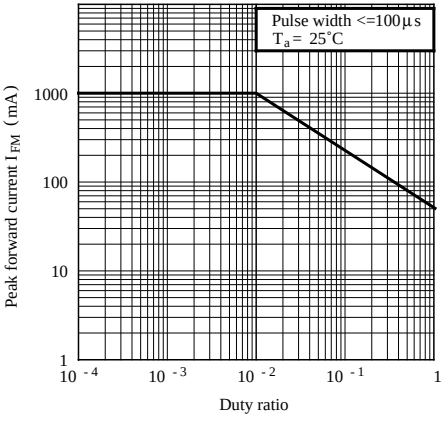


Fig. 3-a Spectral Distribution (GL460)

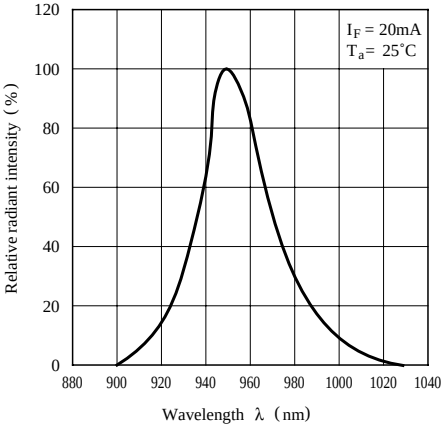


Fig. 3-b Spectral Distribution (GL461)

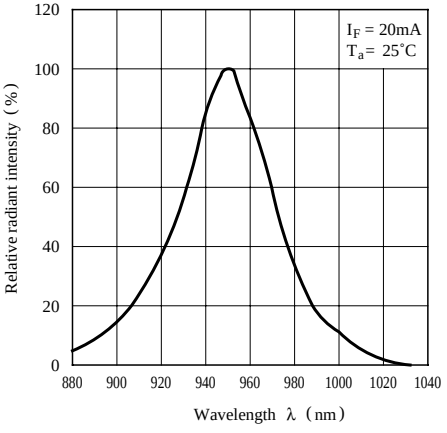


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

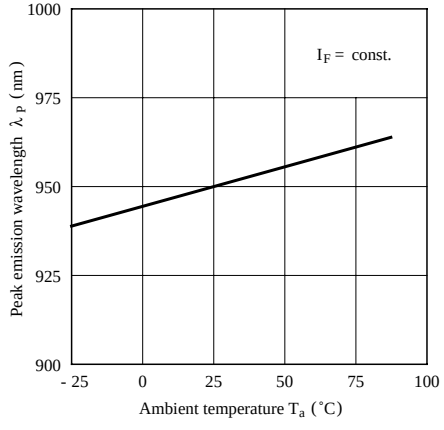


Fig. 5 Forward Current vs. Forward Voltage

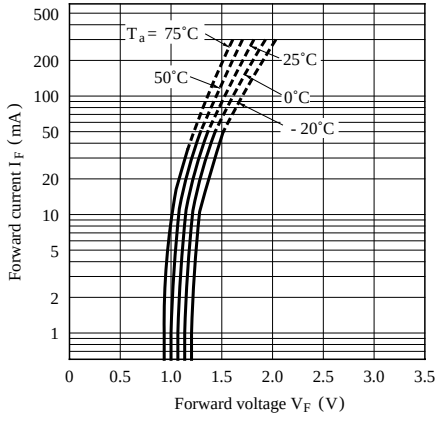


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

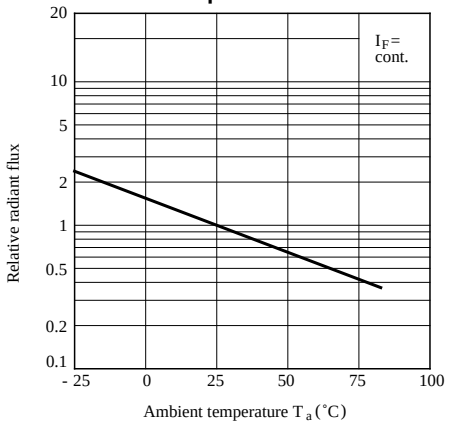


Fig. 7 Radiant Flux vs. Forward Current

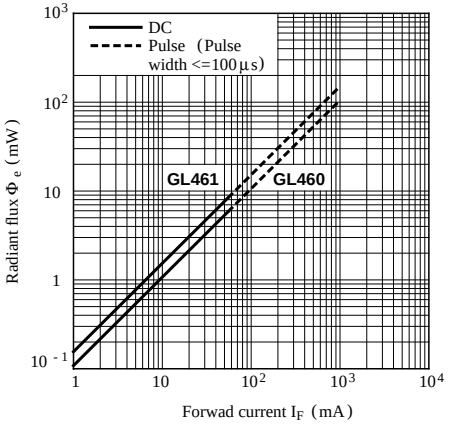


Fig. 8 Relative Collector Current vs. Distance (Detector : PT460)

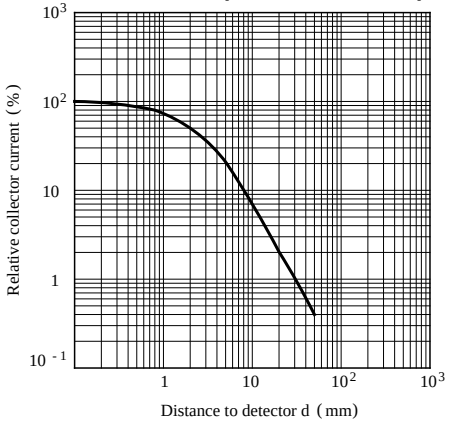
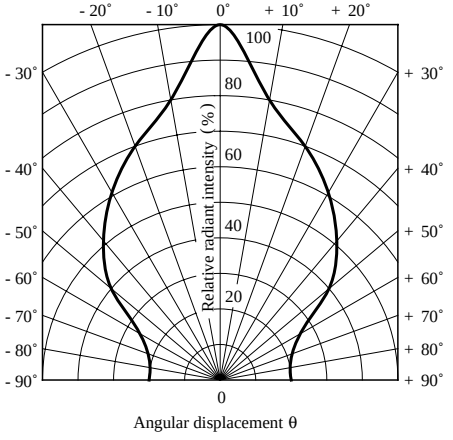
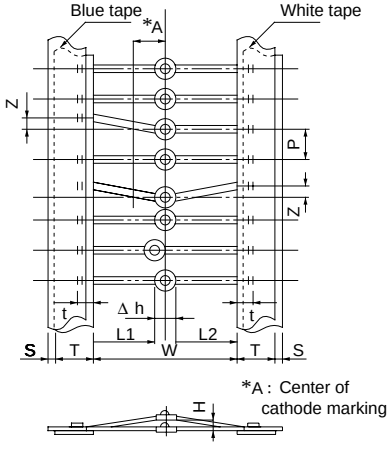


Fig. 9 Radiation Diagram



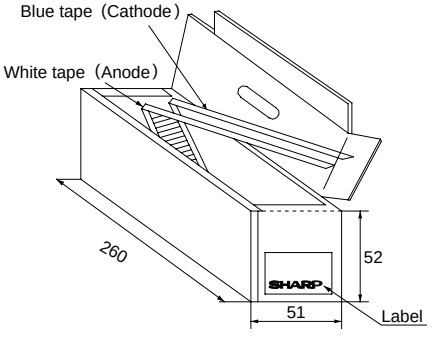
■ Taping Specifications（GL460T /GL461T）



W	(Note 1) P	L2-L1	T	Z	Δ h	S	(Note 2) t	H	A
$26^{+1.5}_{-0.0}$	$5^{+0.5}_{-0.5}$	-	6^{+10}_{-10}	1.2^{MAX}	0.5^{MAX}	0.8^{MAX}	0.5^{MIN}	2.5^{MAX}	(4.5)

（Note 1）Tolerance of 20 pitches is ±2mm.
（Note 2）The lead's overlapping length on the tape.

■ Packing Specification （GL460T /GL461T）



（1）Packing form
Box type
a）The tape is zigzag-folded with 50 pcs. of IR LEDs per fold.
b）IR LED inserting portions for 50 to 60 pcs. on the tape's starting and ending p arts are not stuffed.
c）For the taping of cathode pin, blue tape is used, and for anode pin, white tape in used.
（2）Packing quantity
2 000 pcs. per box

● Please refer to the chapter “Precautions for Use”