

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

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Power dissipation	P	150	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 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	μA
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	-	°

■ Outline Dimensions

(Unit : mm)

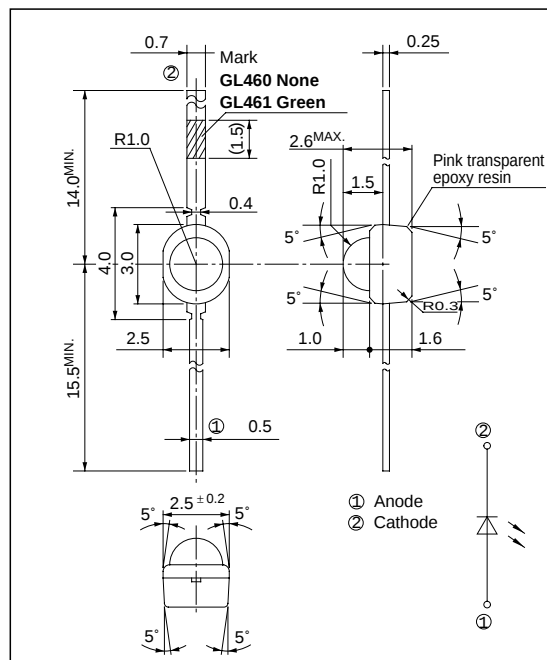


Fig. 1 Forward Current vs. Ambient Temperature

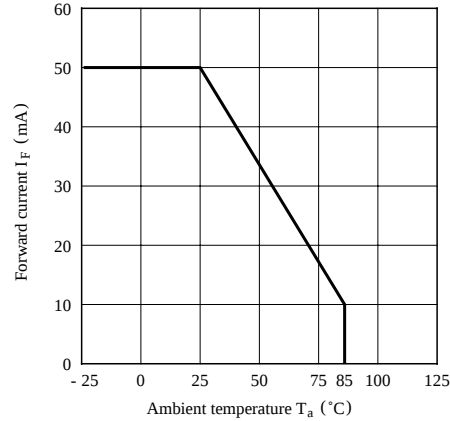


Fig. 2 Peak Forward Current vs. Duty Ratio

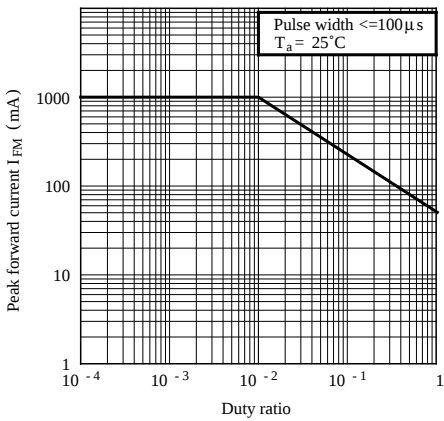


Fig. 3-a Spectral Distribution (GL460)

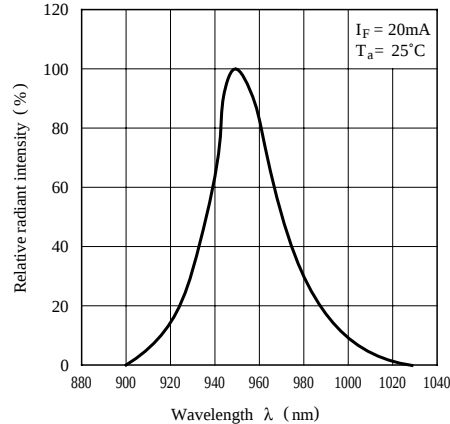


Fig. 3-b Spectral Distribution (GL461)

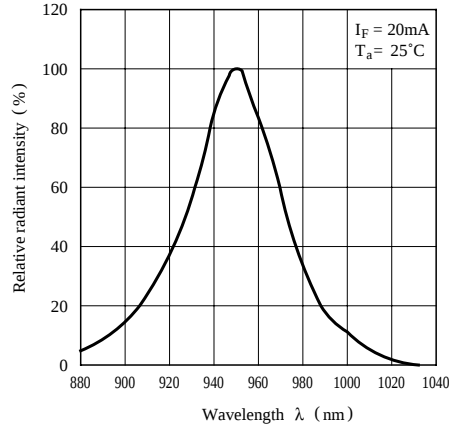


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

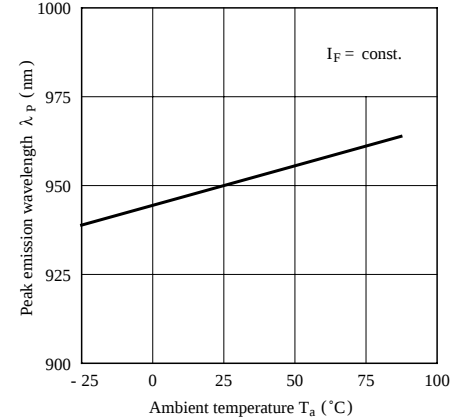


Fig. 5 Forward Current vs. Forward Voltage

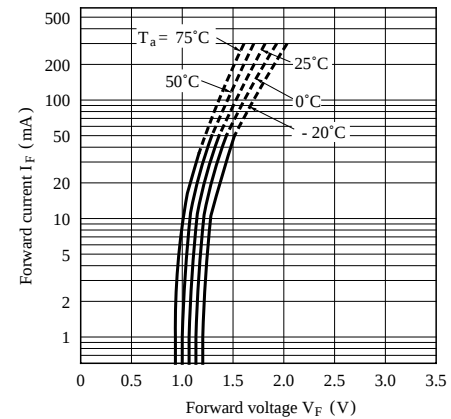


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

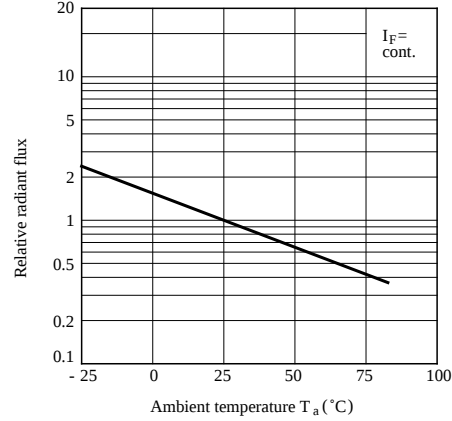


Fig. 7 Radiant Flux vs. Forward Current

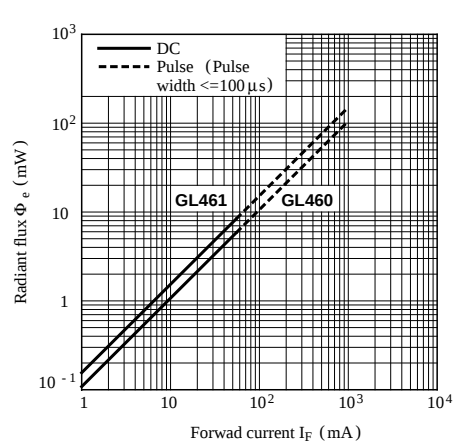


Fig. 8 Relative Collector Current vs. Distance (Detector : PT460)

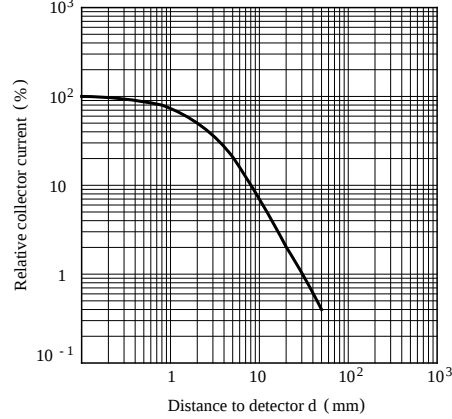
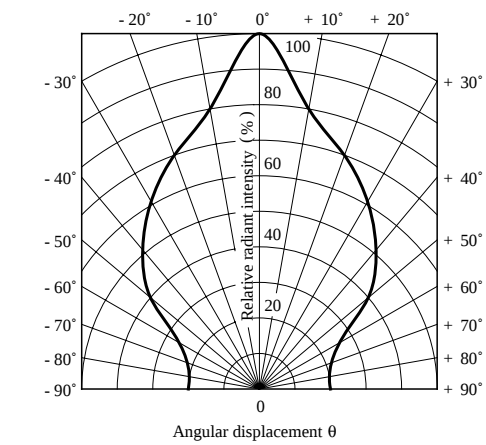
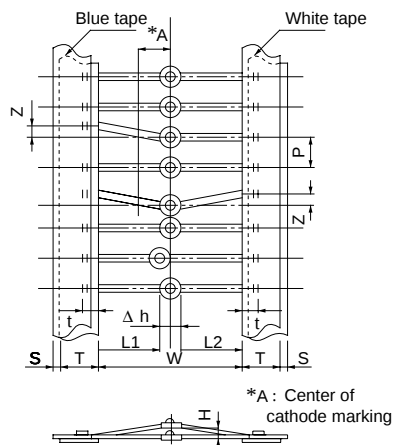


Fig. 9 Radiation Diagram



■ Taping Specifications (GL460T /GL461T)

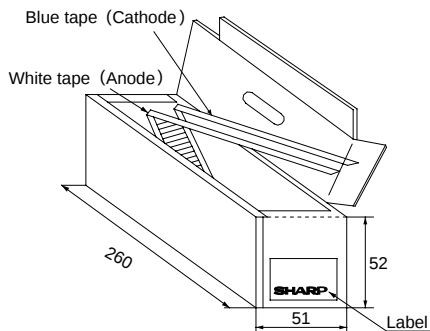


W	(Note 1) P	L2-L1	T	Z	Δ h	S	(Note 2) t	H	A
$26^{+1.5}_{-0.0}$	$5^{+0.5}_{-0.5}$	-	6^{+10}_{-10}	1.2^{MAX}	0.5^{MAX}	0.8^{MAX}	0.5^{MIN}	2.5^{MAX}	(4.5)

(Note 1) Tolerance of 20 pitches is $\pm 2\text{mm}$.

(Note 2) The lead's overlapping length on the tape.

■ Packing Specification (GL460T /GL461T)



(1) Packing form

Box type

- The tape is zigzag-folded with 50 pcs. of IR LEDs per fold.
- IR LED inserting portions for 50 to 60 pcs. on the tape's starting and ending parts are not stuffed.
- For the taping of cathode pin, blue tape is used, and for anode pin, white tape is used.

(2) Packing quantity

2 000 pcs. per box