

# GL360 $\phi$ 3.2mm Resin Mold Type Infrared Light Emitting Diode

T-41-11

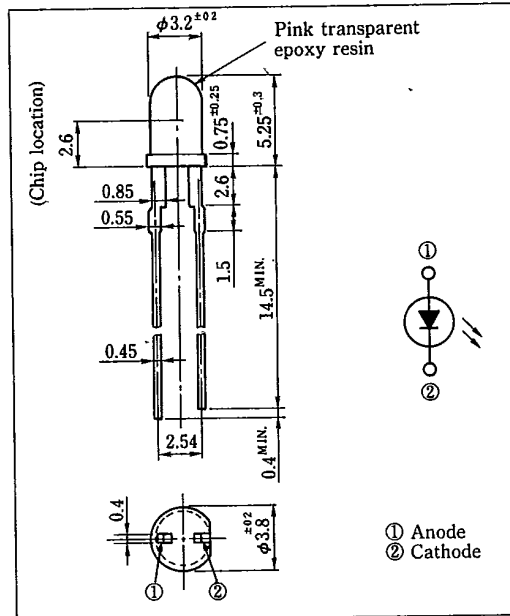
## Features

1.  $\phi$ 3.2mm epoxy resin package
2. Intermediate beam angle ( $\Delta\theta$ : TYP.  $\pm 20^\circ$ )
3. High output ( $\Phi_e$ : MIN.1.5mW at  $I_F=40mA$ )

## Applications

1. Floppy disk drives
2. Optoelectronic switches
3. Infrared applied systems

## Outline Dimensions (Unit : mm)



## Absolute Maximum Ratings

( $T_a = 25^\circ C$ )

Parameter	Symbol	Rating	Unit
Power dissipation	P	90	mW
Forward current	$I_F$	60	mA
*1 Peak forward current	$I_{FM}$	1	A
Reverse voltage	$V_R$	3	V
Operating temperature	$T_{opr}$	-25 ~ +85	$^\circ C$
Storage temperature	$T_{stg}$	-40 ~ +85	$^\circ C$
*2 Soldering temperature	$T_{sol}$	260	$^\circ C$

\*1 Pulse width  $\leq 100\mu s$ , Duty ratio = 0.01

\*2 For 3 seconds at the position of 2.6mm from the bottom face of resin package.

## Electro-optical Characteristics

( $T_a = 25^\circ C$ )

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	$I_F = 40mA$	—	1.3	1.5	V
Peak forward voltage	$V_{FM}$	$I_{FM} = 0.5A$	—	2.2	3.5	V
Reverse current	$I_R$	$V_R = 3V$	—	—	10	$\mu A$
Terminal capacitance	$C_t$	$V = 0, f = 1MHz$	—	70	—	pF
*3 Radiant intensity	$I_E$	$I_F = 40mA$	2.5	5.0	10.0	mW/sr
Radiant flux	$\Phi_e$	$I_F = 40mA$	1.5	2.4	—	mW
Peak emission wavelength	$\lambda_p$	$I_F = 40mA$	—	950	—	nm
Half intensity wavelength	$\Delta\lambda$	$I_F = 40mA$	—	45	—	nm

\*3  $I_E$  : Value obtained by converting the value in power of radiant fluxes emitted at the solid angle of 0.01 sr (steradian) in the direction of mechanical axis of the lense portion into 1 sr of all those emitted from the light emitting diode.

SHARP

Fig. 1 Forward Current vs. Ambient Temperature

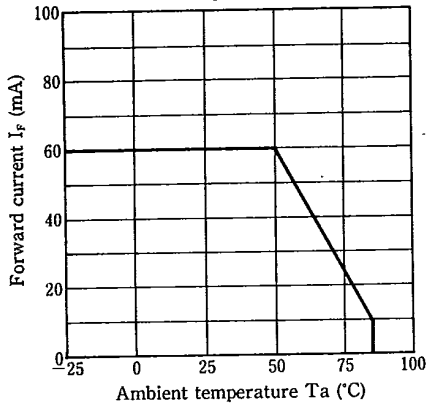


Fig. 2 Peak Forward Current vs. Duty Ratio

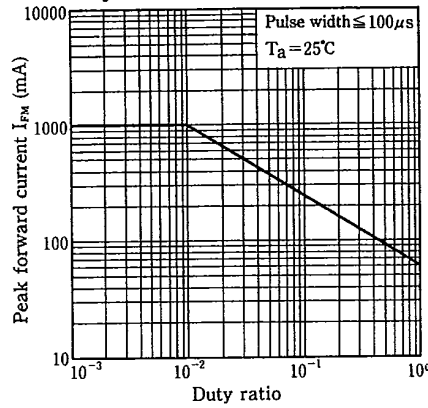


Fig. 3 Spectral Distribution

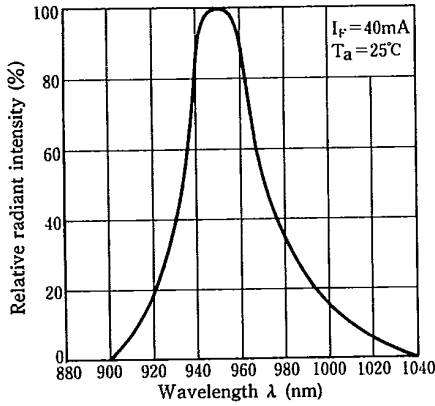


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

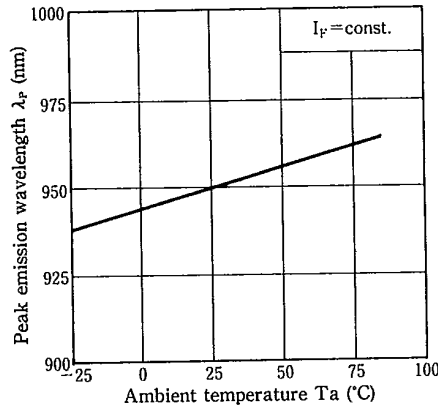


Fig. 5 Forward Current vs. Forward Voltage

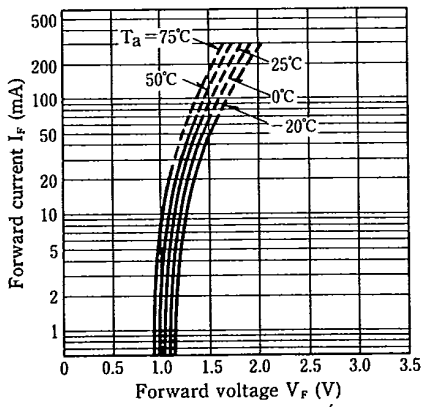


Fig. 6 Relative Radiant Flux vs. Ambient Temperature

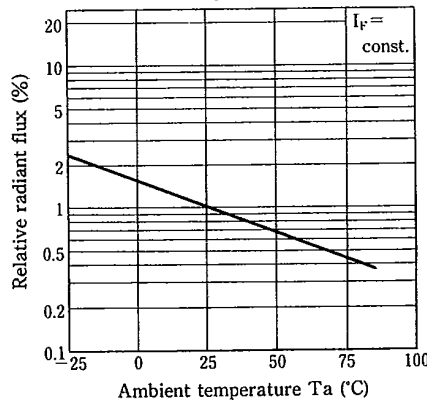


Fig. 7 Radiant Flux vs. Forward Current

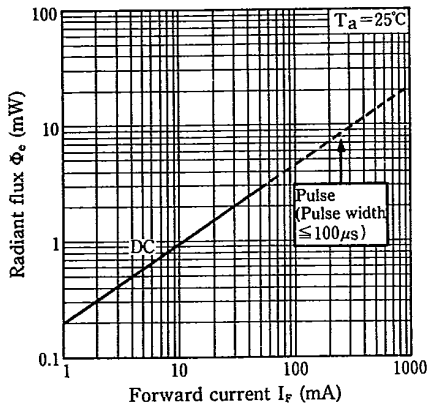


Fig. 8 Relative Collector Current vs. Distance (Detector: PT360)

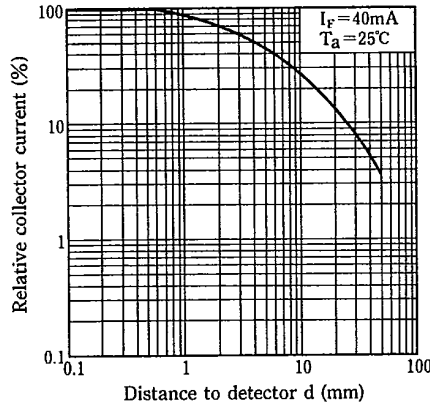


Fig. 9 Radiation Diagram ( $T_a = 25^\circ\text{C}$ )

