

GL371/GL372

Compact Resin Stem Type Infrared Emitting Diode

Features

1. $\phi 3\text{mm}$ compact, resin stem type
2. Wide beam angle $\left[\begin{array}{l} \text{GL371 } \Delta\theta : \text{TYP. } \pm 90^\circ \\ \text{GL372 } \Delta\theta : \text{TYP. } \pm 70^\circ \end{array} \right]$
3. High output
(ϕ_e : MIN. 1.7mW at $I_F=40\text{mA}$)

Applications

1. Floppy disk drives
2. Smoke detectors, optoelectronic switches
3. Infrared applied systems

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}	-25 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 1.5mm from the bottom face of resin package.

Electro-optical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	$I_F=40\text{mA}$	—	1.3	1.6	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
Frequency response	f_c		—	300	—	kHz
Radiant flux	Φ_e	$I_F=40\text{mA}$	1.7	3.3	—	mW
Peak emission wavelength	λ_p	$I_F=40\text{mA}$	—	950	—	nm
Half intensity wavelength	$\Delta\lambda$	$I_F=40\text{mA}$	—	45	—	nm
Half intensity angle	GL371	$\Delta\theta$	$I_F=40\text{mA}$	± 90	—	°
	GL372			± 70	—	°

Outline Dimensions

(Unit : mm)

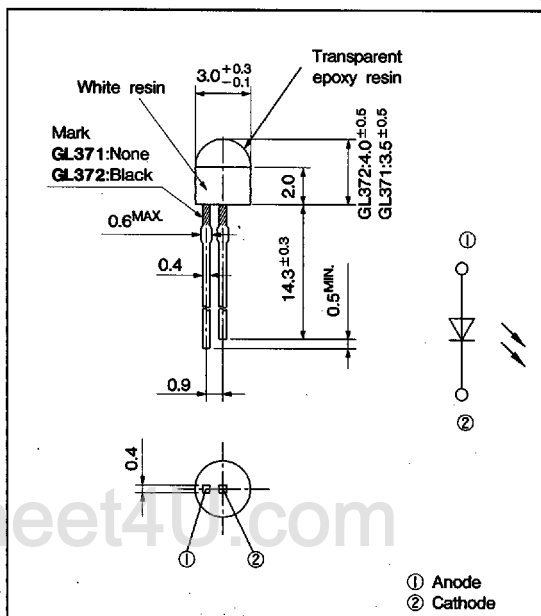


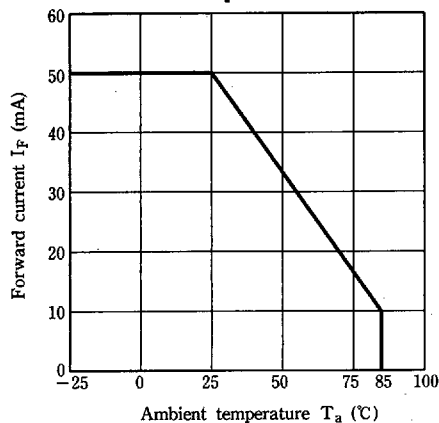
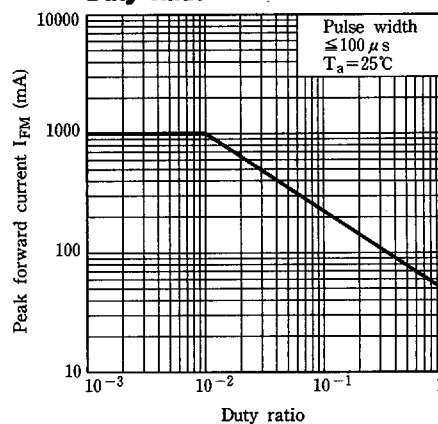
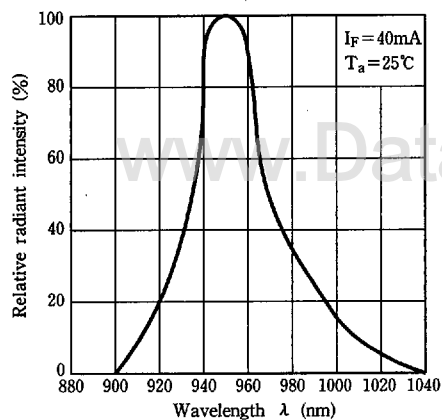
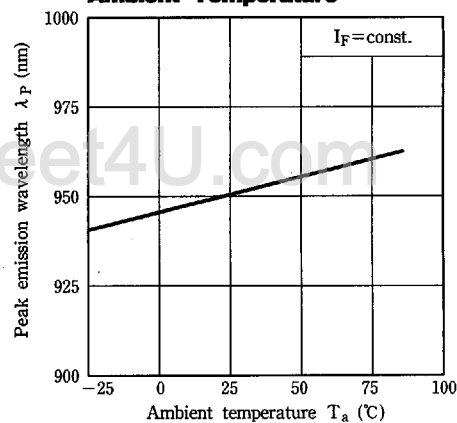
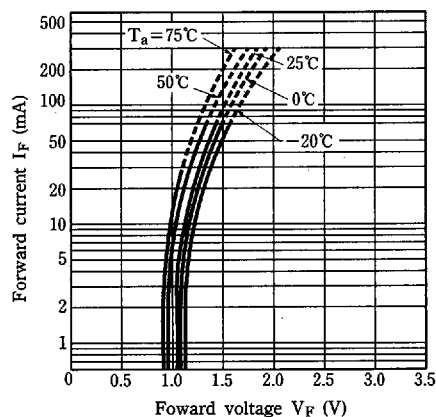
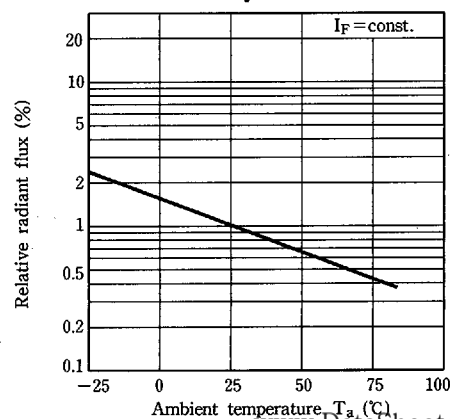
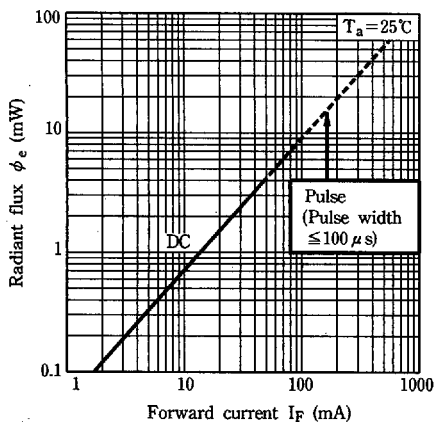
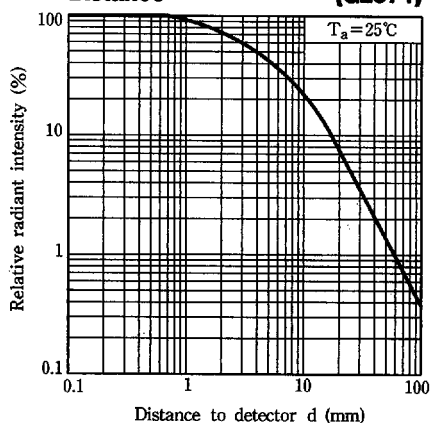
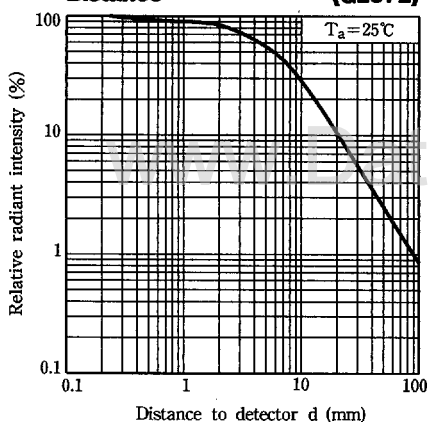
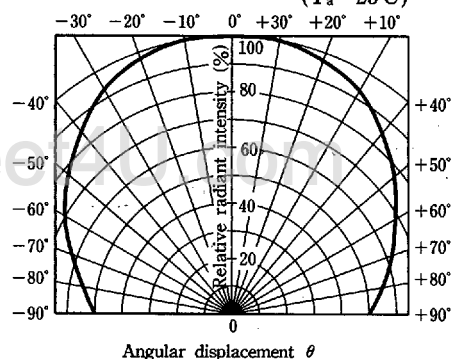
Fig. 1 Forward Current vs. Ambient Temperature**Fig. 2 Peak Forward Current vs. Duty Ratio****Fig. 3 Spectral Distribution****Fig. 4 Peak Emission Wavelength vs. Ambient Temperature****Fig. 5 Forward Current vs. Forward Voltage****Fig. 6 Relative Radiant Flux vs. Ambient Temperature**

Fig. 7 Radiant Flux vs. Forward Current**Fig. 8 Relative radiant intensity vs. Distance** (GL371)**Fig. 9 Radiant Intensity vs. Distance** (GL372)**Fig.10 Radiation Diagram** (GL371)**Fig.11 Radiation Diagram** (GL372)