# GL4800

## Thin Type Infrared Emitting Diode

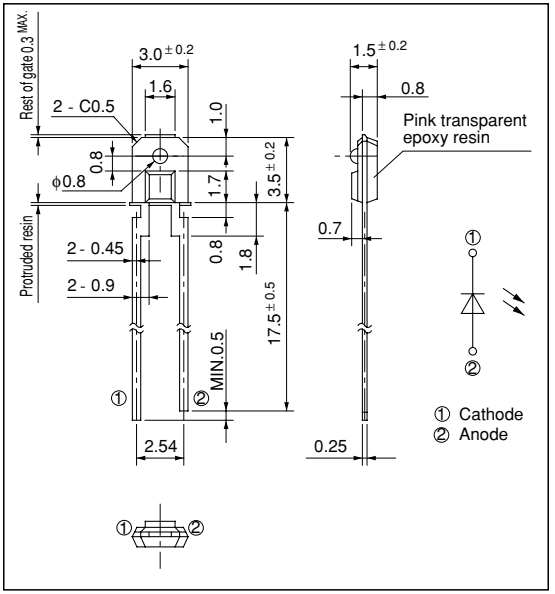
### ■ Features

1. Thin type (Thickness:1.5mm)
2. Beam angle (Δθ:TYP.±30°)
3. Radiant flux
   ($\Phi_e$:MIN. 0.7mW at $I_F$=20mA)
4. Epoxy resin package

### ■ Applications

1. Floppy disk drives
2. Optoelectronic switches

### ■ Outline Dimensions (Unit : mm)




### ■ Absolute Maximum Ratings ($T_a$=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≤100μs, Duty ratio=0.01
*2 For 3s at the position of 1.8mm from the surface of resin edge

### ■ Electro-optical Characteristics ($T_a$=25°C)

| Parameter | Symbol | Conditions | MIN. | TYP. | MAX. | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | $V_F$ | $I_F$=20mA | − | 1.2 | 1.4 | V |
| Peak forward voltage | $V_{FM}$ | $I_{FM}$=0.5A | − | 3.0 | 4.0 | V |
| Reverse current | $I_R$ | $V_R$=3V | − | − | 10 | μA |
| Terminal capacitance | $C_t$ | $V_R$=0, f=1MHz | − | 70 | − | pF |
| Frequency response | $f_c$ | − | − | 300 | − | kHz |
| Radiant flux | $\Phi_e$ | $I_F$=20mA | 0.7 | 1.6 | 3.0 | mW |
| Peak emission wavelength | $\lambda_p$ | $I_F$=5mA | − | 950 | − | nm |
| Half intensity wavelength | Δλ | $I_F$=5mA | − | 45 | − | nm |

**Fig. 1 Forward Current vs. Ambient Temperature**

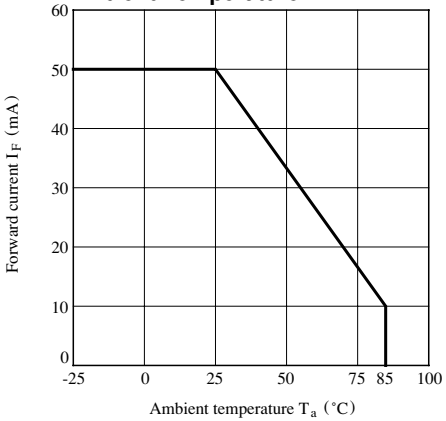



**Fig. 2 Peak Forward Current vs. Duty Ratio**

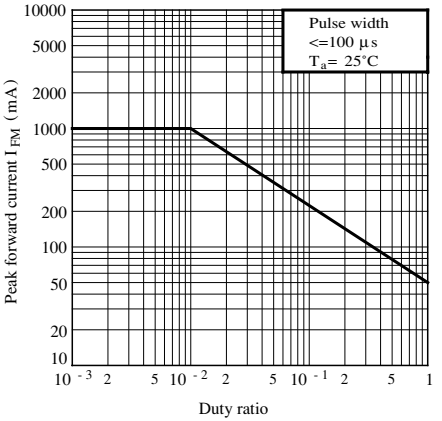



**Fig. 3 Spectral Distribution**

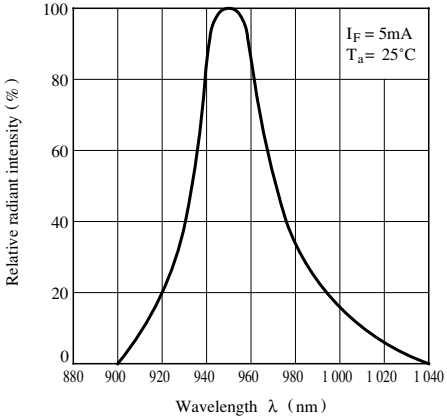



**Fig. 4 Peak Emission Wavelength vs. Ambient Temperature**

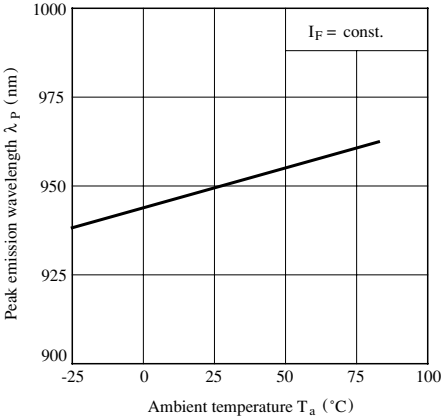



**Fig. 5 Forward Current vs. Forward Voltage**

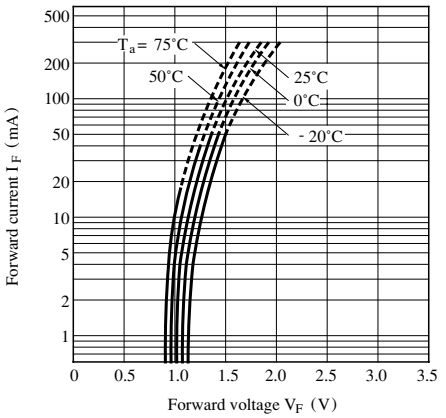



**Fig. 6 Relative Radiant Flux vs. Ambient Temperature**

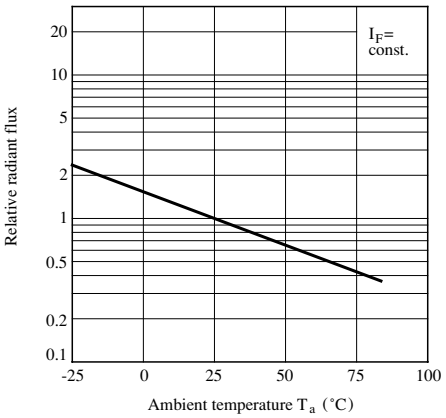


**Fig. 7 Radiant Flux vs. Forward Current**

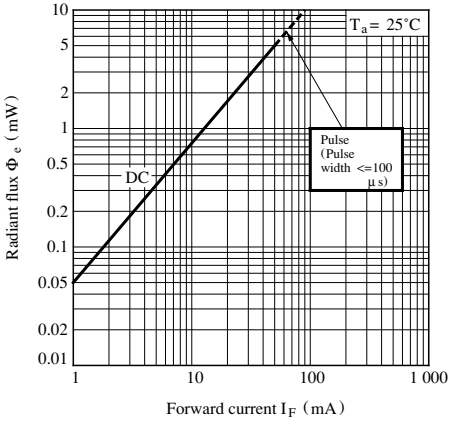



**Fig. 8 Relative Radiant Intensity vs. Distance**

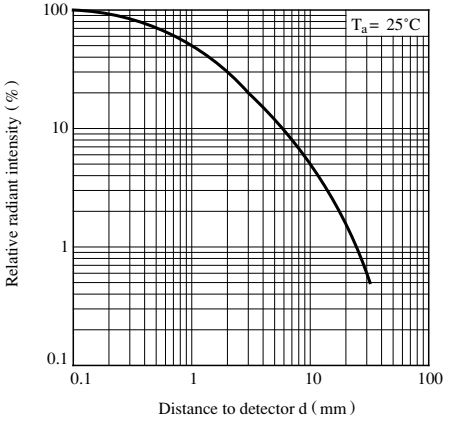



**Fig. 9 Relative Collector Current vs. Distance (Detector : PT4800)**

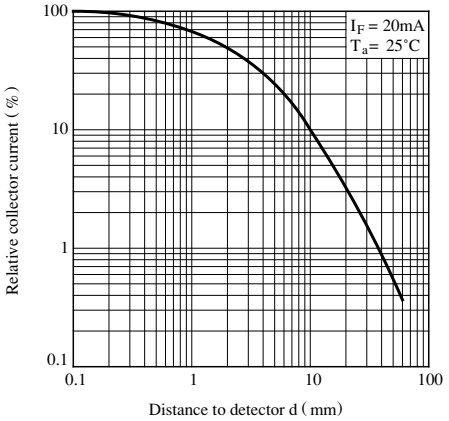
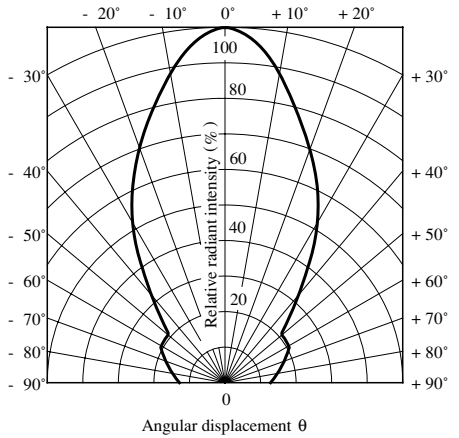



**Fig.10 Radiation Diagram** ($T_a$= 25°C)




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

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  --- Consumer electronics

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