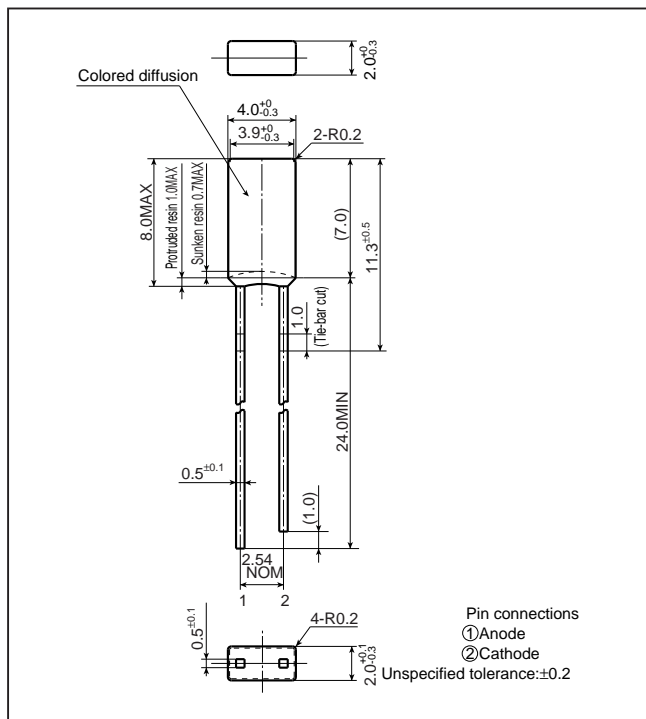


GL8TR42

2.0 × 3.9mm, Rectangle Type, Colored Diffusion, High-luminosity LED Lamp for Indicator

Outline Dimensions

(Unit : mm)



Absolute Maximum Ratings

(T_a=25°C)

| Model No. | Radiation color | Radiation material | Power dissipation P (mW) | Forward current I _F (mA) | Peak forward current I _{FM} *1 (mA) | Derating factor (mA/°C) | | Reverse voltage V _R (V) | Operating temperature T _{opr} (°C) | Storage temperature T _{stg} (°C) | Soldering temperature T _{sol} *2 (°C) |
|-----------|----------------------|--------------------|--------------------------------|---|--|----------------------------|-------|--|---|---|--|
| | | | | | | DC | Pulse | | | | |
| GL8TR42 | Red(High-luminosity) | GaAlAs on GaAs | 110 | 50 | 300 | 0.67 | 4.00 | 5 | -25 to +85 | -25 to +100 | 260 |

*1 Duty ratio=1/16, Pulse width≤1ms

*2 5s or less(At the position of 1.6mm or more from the bottom face of resin package)

Electro-optical Characteristics

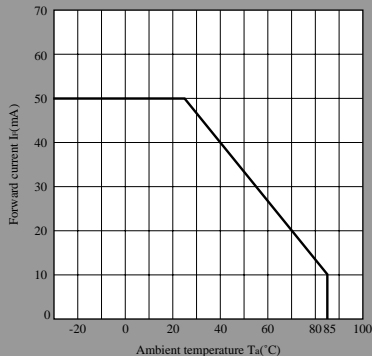
(T_a=25°C)

| Lens type | Model No. | Forward voltage V _F (V) | | Peak emission wavelength | | Luminous intensity | | Spectrum radiation bandwidth | | Reverse current | | Terminal capacitance | | Page for characteristics diagrams |
|-------------------|-----------|---------------------------------------|-----|----------------------------|------------------------|-----------------------------|------------------------|------------------------------|------------------------|----------------------------|-----------------------|----------------------------|-------|-----------------------------------|
| | | TYP | MAX | λ _p (nm) TYP | I _F (mA) | I _v (mcd) TYP | I _F (mA) | Δλ(nm) TYP | I _F (mA) | I _R (μA) MAX | V _R (V) | C _t (pF) TYP | (MHz) | |
| Colored diffusion | GL8TR42 | 1.75 | 2.2 | 660 | 20 | 4.0 | 20 | 20 | 20 | 10 | 4 | 30 | 1 | → |

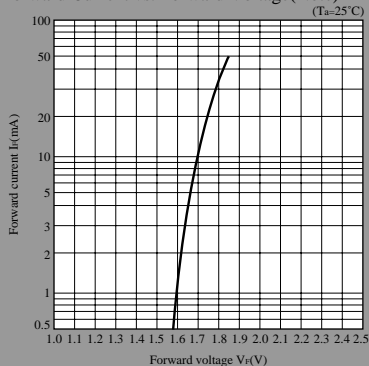
(Notice) • In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.
 (Internet) • Data for sharp's optoelectronic/power device is provided for internet.(Address <http://www.sharp.co.jp/ecg/>)

TR series

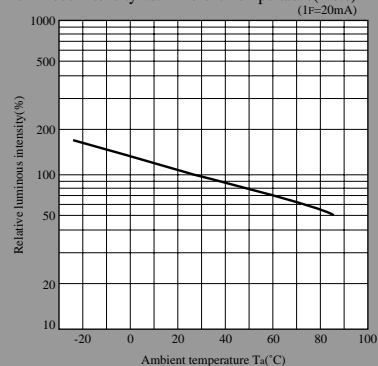
Forward Current Derating Curve



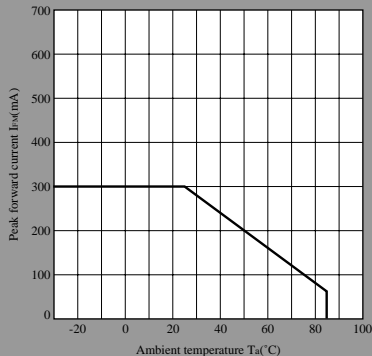
Forward Current vs. Forward Voltage(Note)



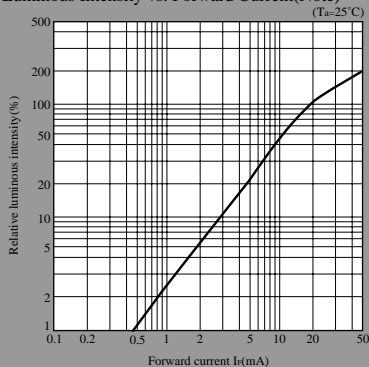
Luminous Intensity vs. Ambient Temperature(Note)



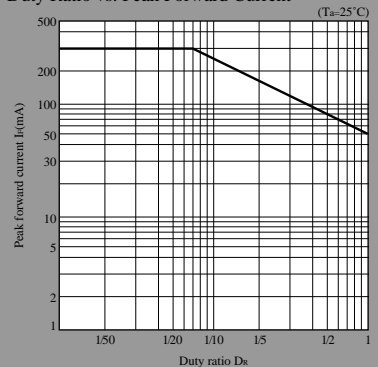
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current



Note) Characteristics shown in diagrams are typical values. (not assurance value)