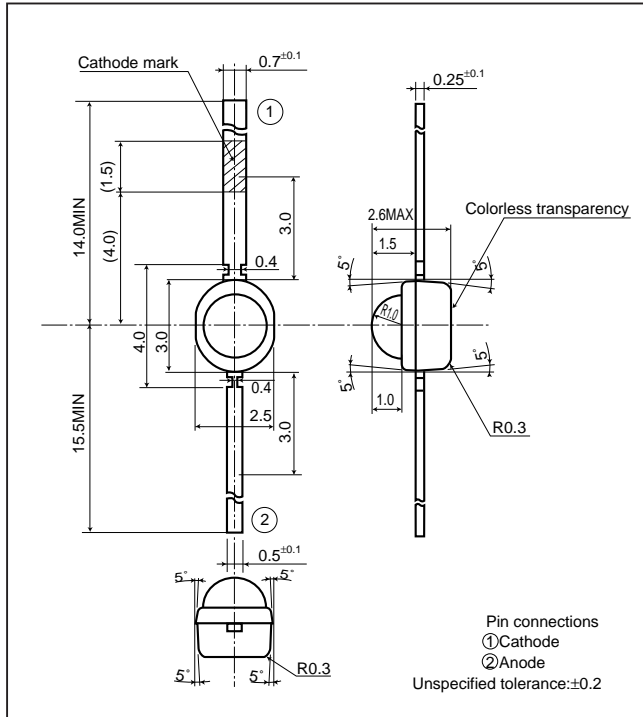


LT1□21A series

ø2mm, Straight Type, Colorless Transparency, Compact LED Lamp for Backlight/Indicator

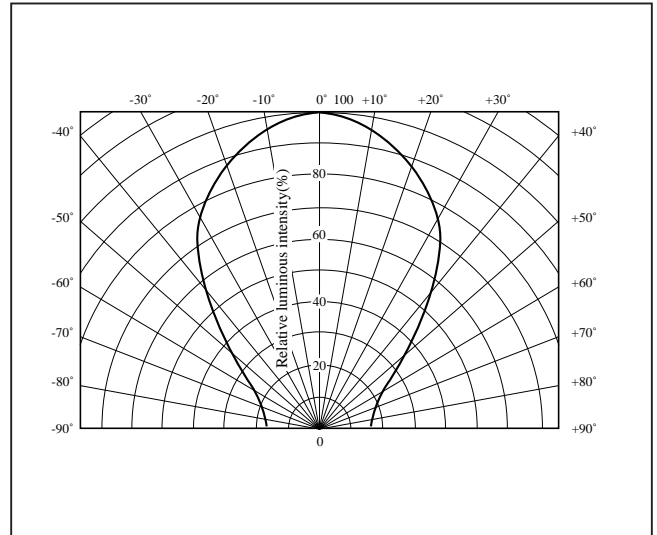
Outline Dimensions

(Unit:mm)



Radiation Diagram

(Ta=25°C)



T type: There is Anode mark on the device because polarity faces in the opposite direction.

Absolute Maximum Ratings

(Ta=25°C)

| Model No. | Radiation color | Radiation material | Power dissipation P (mW) | Forward current IF (mA) | Peak forward current IFM*1 (mA) | Derating factor (mA/°C) | | Reverse voltage VR (V) | Operating temperature Topr (°C) | Storage temperature Tstg (°C) | Soldering temperature Tsol*2 (°C) |
|-----------|----------------------|--------------------|--------------------------------|-------------------------------|---------------------------------------|----------------------------|-------|------------------------------|---------------------------------------|-------------------------------------|---|
| | | | | | | DC | Pulse | | | | |
| LT1T21A | Red(High-luminosity) | GaAlAs on GaAs | 66 | 30 | 50 | 0.40 | 0.67 | 5 | -25 to +85 | -25 to +100 | 260 |
| LT1P21A | Red | GaP | 23 | 10 | 50 | 0.13 | 0.67 | 5 | -25 to +85 | -25 to +100 | 260 |
| LT1D21A | Red | GaAsP on GaP | 85 | 30 | 50 | 0.40 | 0.67 | 5 | -25 to +85 | -25 to +100 | 260 |
| LT1S21A | Sunset orange | GaAsP on GaP | 85 | 30 | 50 | 0.40 | 0.67 | 5 | -25 to +85 | -25 to +100 | 260 |
| LT1H21A | Yellow | GaAsP on GaP | 50 | 20 | 50 | 0.27 | 0.67 | 5 | -25 to +85 | -25 to +100 | 260 |
| LT1E21A | Yellow-green | GaP | 50 | 20 | 50 | 0.27 | 0.67 | 5 | -25 to +85 | -25 to +100 | 260 |

*1 Duty ratio=1/10, Pulse width=0.1ms

*2 At the position of 3mm or more from the resin package

Electro-optical Characteristics

(Ta=25°C)

| Lens type | Model No. | Forward voltage VF(V) | | Peak emission wavelength | | Luminous intensity | | Spectrum radiation bandwidth | | Reverse current | | Terminal capacitance | | Page for characteristics diagrams |
|------------------------|-----------|--------------------------|-----|--------------------------|------------|--------------------|------------|------------------------------|------------|-----------------|-----------|----------------------|-------|-----------------------------------|
| | | TYP | MAX | λp(nm) TYP | IF (mA) | Iv(mcd) TYP | IF (mA) | Δλ(nm) TYP | IF (mA) | IR(μA) MAX | VR (V) | Ct(pF) TYP | (MHz) | |
| | | | | | | | | | | | | | | |
| Colorless transparency | LT1T21A | 1.75 | 2.2 | 660 | 20 | 19.0 | 20 | 20 | 20 | 10 | 4 | 30 | 1 | → |
| | LT1P21A | 1.9 | 2.3 | 695 | 5 | 2.6 | 5 | 100 | 5 | 10 | 4 | 55 | 1 | → |
| | LT1D21A | 2.0 | 2.8 | 635 | 20 | 14.4 | 20 | 35 | 20 | 10 | 4 | 20 | 1 | → |
| | LT1S21A | 2.0 | 2.8 | 610 | 20 | 14.0 | 20 | 35 | 20 | 10 | 4 | 15 | 1 | → |
| | LT1H21A | 1.9 | 2.5 | 585 | 10 | 4.5 | 10 | 30 | 10 | 10 | 4 | 35 | 1 | → |
| | LT1E21A | 1.95 | 2.5 | 565 | 10 | 9.1 | 10 | 30 | 10 | 10 | 4 | 35 | 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/>)

LED Lamp Characteristics Diagrams

PR series



HD series

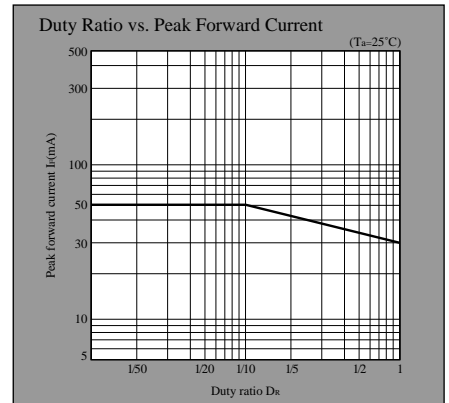
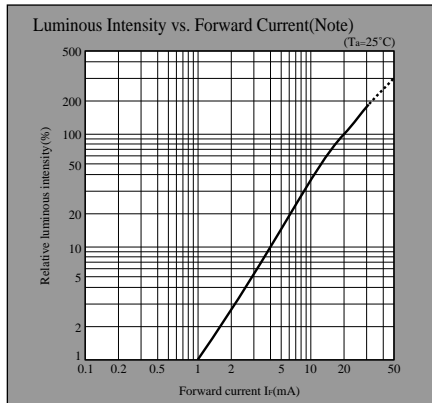
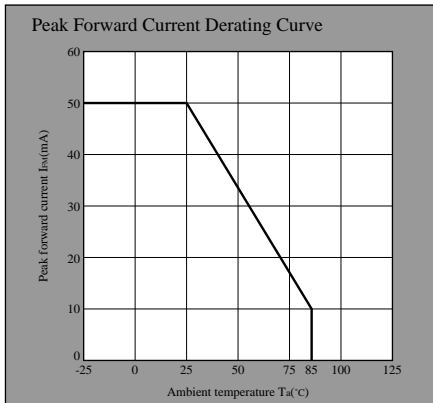
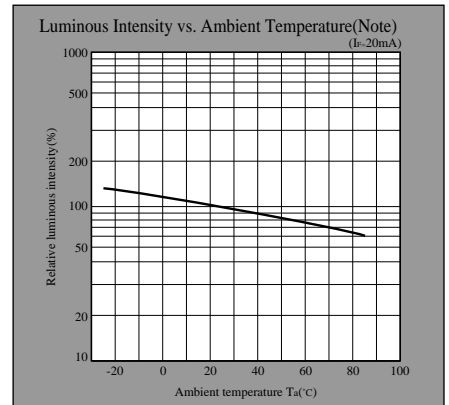
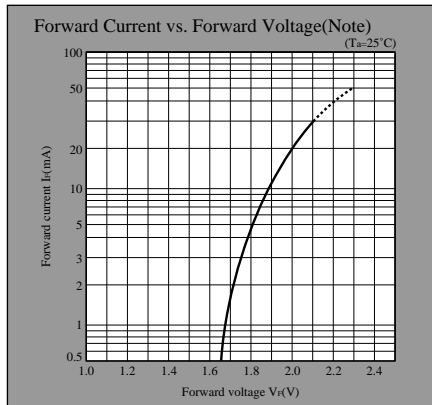
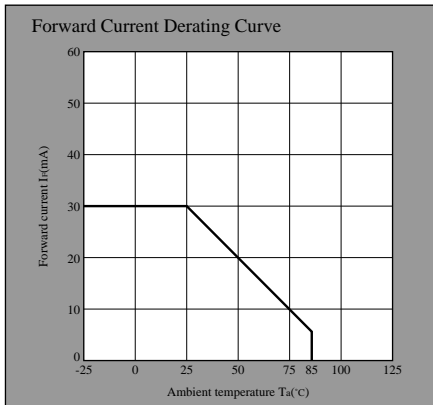


Note) Characteristics shown in diagrams are typical values. (not assurance value)

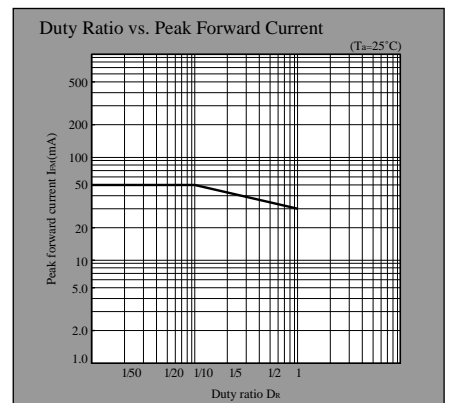
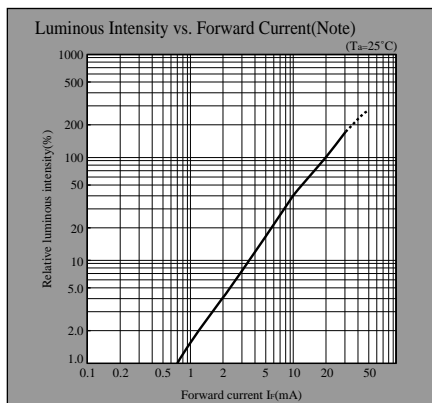
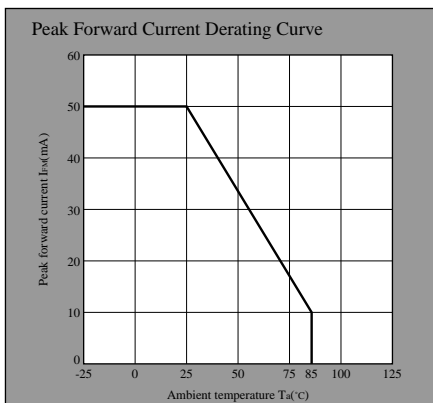
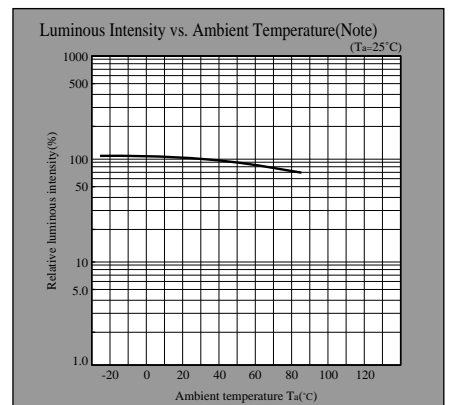
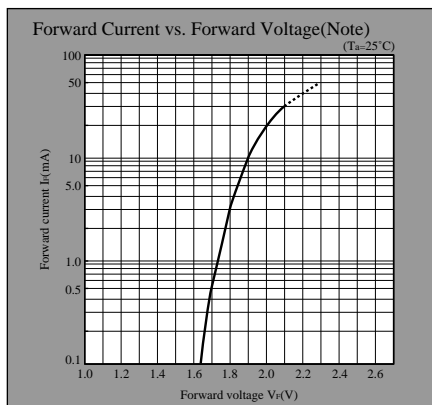
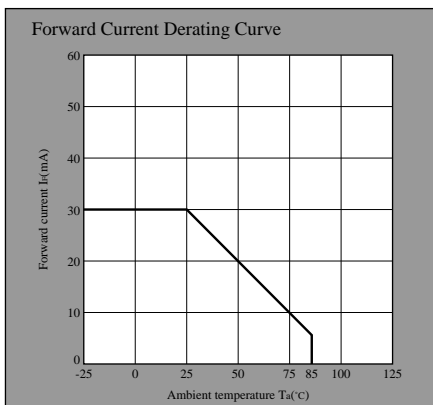
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LED Lamp Characteristics Diagrams

HS series



HY series

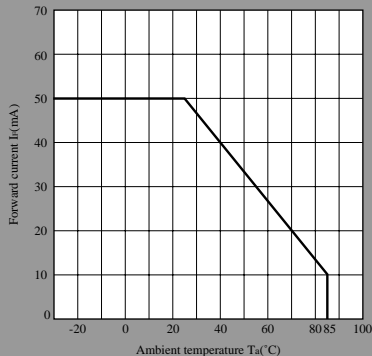


Note) Characteristics shown in diagrams are typical values. (not assurance value)

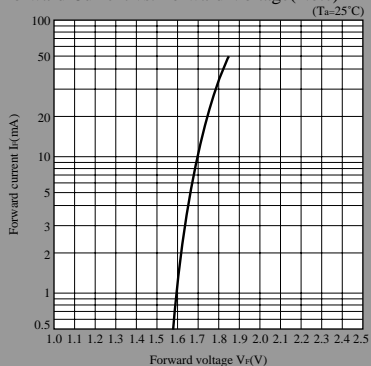
(Notice) • In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.
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TR series

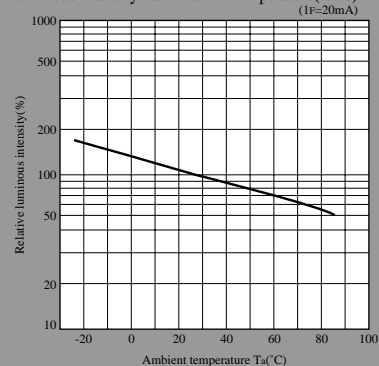
Forward Current Derating Curve



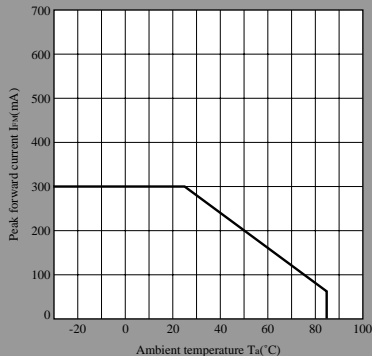
Forward Current vs. Forward Voltage(Note)



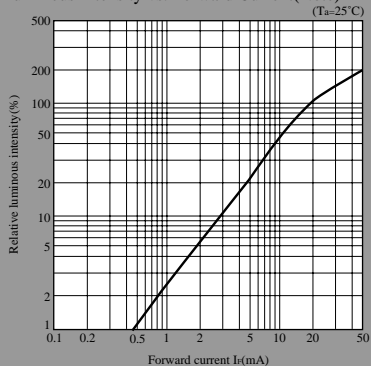
Luminous Intensity vs. Ambient Temperature(Note)



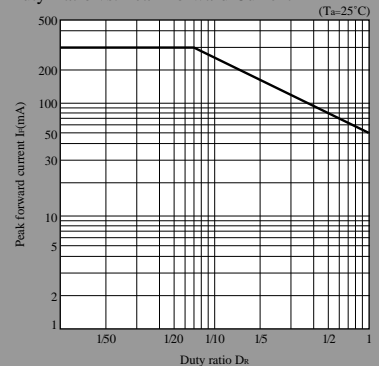
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

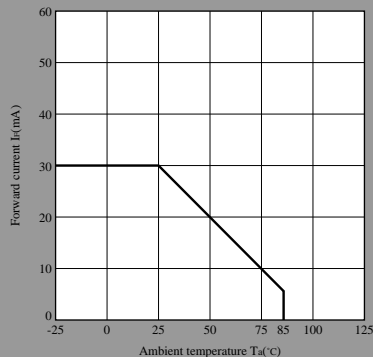


Duty Ratio vs. Peak Forward Current

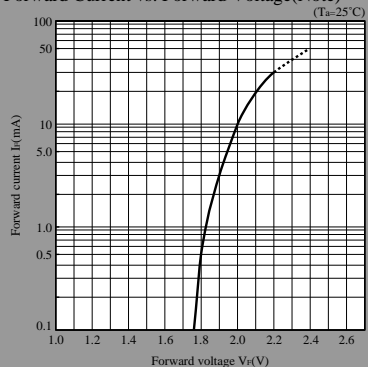


Note) Characteristics shown in diagrams are typical values. (not assurance value)

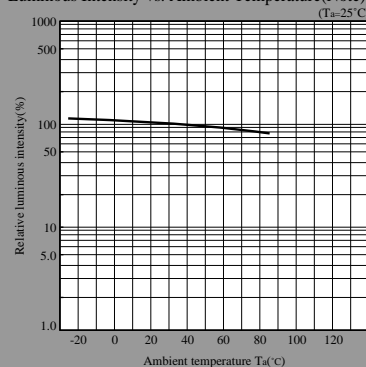
Forward Current Derating Curve



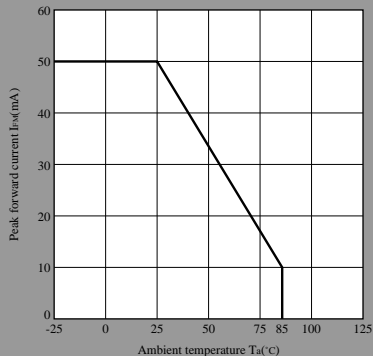
Forward Current vs. Forward Voltage(Note)



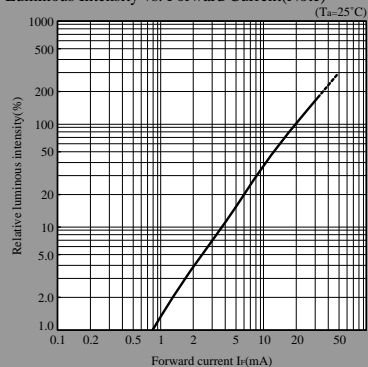
Luminous Intensity vs. Ambient Temperature(Note)



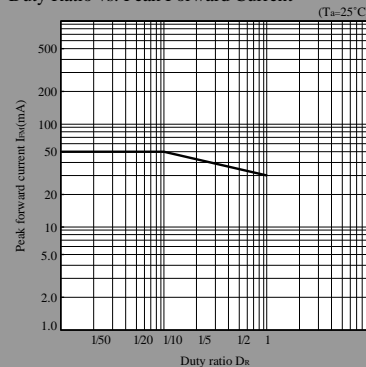
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current



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