Chip LED Device

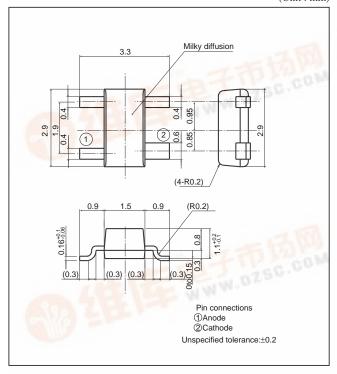
LT1□53A series

LT1□53A series

3.3×2.9mm, 1.1mm Thickness, Milky Diffusion Chip LED Devices

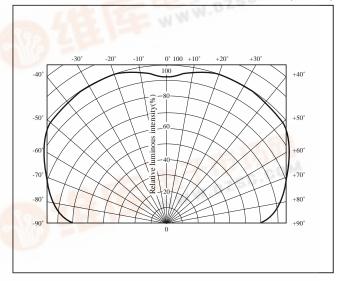
■ Outline Dimensions

(Unit: mm)



■ Radiation Diagram

(Ta=25°C)



■ Absolute Maximum Ratings

(Ta=25°C)

| | | | | | | | | | | | (" / |
|-----------|-----------------|--------------------|-------------------|--------------------|-----------------------------|-------------------------|-------|--------------------------------|--|----------------------------------|--|
| Model No. | Radiation color | Radiation material | Power dissipation | Forward current IF | Peak forward current IFM*1 | Derating factor (mA/°C) | | Reverse voltage V _R | Operating temperature T_{opr} | Storage temperature $T_{ m stg}$ | Soldering temperature ${{\mathbf{T}_{\mathrm{sol}}}^{*2}}$ |
| | | | (mW) | (mA) | (mA) | DC | Pulse | (V) | (°C) | (°C) | (°C) |
| LT1P53A | Red | GaP | 23 | 10 | 50 | 0.13 | 0.67 | 5 | -25 to +85 | -25 to +100 | 350 |
| LT1D53A | Red | GaAsP on GaP | 85 | 30 | 50 | 0.40 | 0.67 | 5 | -25 to +85 | -25 to +100 | 350 |
| LT1S53A | Sunset orange | GaAsP on GaP | 85 | 30 | 50 | 0.40 | 0.67 | 5 | -25 to +85 | -25 to +100 | 350 |
| LT1H53A | Yellow | GaAsP on GaP | 50 | 20 | 50 | 0.27 | 0.67 | 5 | -25 to +85 | -25 to +100 | 350 |
| LT1E53A | Yellow-green | GaP | 50 | 20 | 50 | 0.27 | 0.67 | 5 | -25 to +85 | -25 to +100 | 350 |
| LT1K53A | Green | GaP | 50 | 20 | 50 | 0.27 | 0.67 | 5 | -25 to +85 | -25 to +100 | 350 |

■ Electro-optical Characteristics

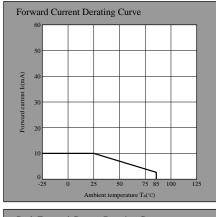
(Ta=25°C)

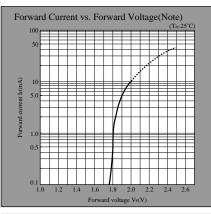
| | Model No. | Forward voltage V _F (V) | | Peak emission wavelength | | Luminous intensity | | Spectrum radiation bandwidth | | Reverse current | | Terminal capacitance | | Page for |
|-----------|-----------|------------------------------------|-----|--------------------------|---------|--------------------|---------|------------------------------|---------|-----------------|-----|----------------------|-------|-----------------|
| Lens type | | | | $\lambda_p(nm)$ | I_{F} | Iv(mcd) | I_{F} | $\Delta\lambda(nm)$ | I_{F} | Ir(µA) | VR | C _t (pF) | | characteristics |
| | | TYP | MAX | TYP | (mA) | TYP | (mA) | TYP | (mA) | MAX | (V) | TYP | (MHz) | diagrams |
| | LT1P53A | 1.9 | 2.3 | 695 | 5 | 1.4 | 5 | 100 | 5 | 10 | 4 | 55 | 1 | \rightarrow |
| | LT1D53A | 2.0 | 2.8 | 635 | 20 | 9.6 | 20 | 35 | 20 | 10 | 4 | 20 | 1 | \rightarrow |
| Milky | LT1S53A | 2.0 | 2.8 | 610 | 20 | 7.8 | 20 | 35 | 20 | 10 | 4 | 15 | 1 | \rightarrow |
| diffusion | LT1H53A | 1.9 | 2.5 | 585 | 10 | 3.7 | 10 | 30 | 10 | 10 | 4 | 35 | 1 | \rightarrow |
| Φ | LT1E53A | 1.85 | 2.5 | 565 | 10 | 4.8 | 10 | 30 | 10 | 10 | 4 | 35 | 1 | \rightarrow |
| 排发 🕶 F | LT1K53A | 1.95 | 2.5 | 555 | 10 | 2.2 | 10 | 25 | 10 | 10 | 4 | 40 | 1 | \rightarrow |

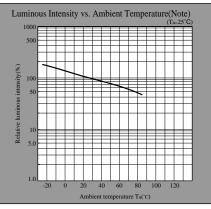
^{*2} For 3s or less at the temperature of hand soldering. Temperature of reflow soldering is shown on the below page.

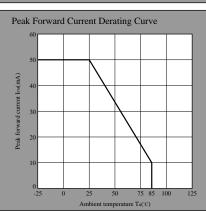
LED Lamp Characteristics Diagrams

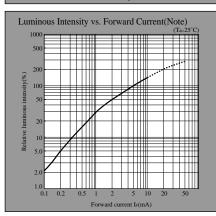
PR series

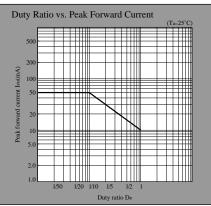




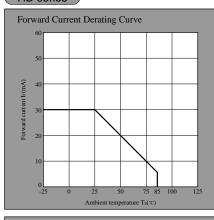


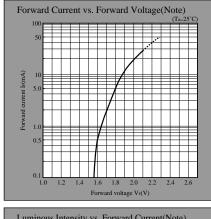


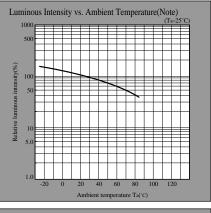


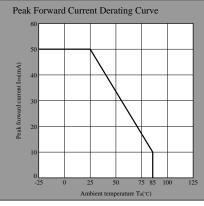


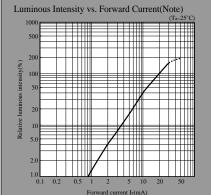
HD series

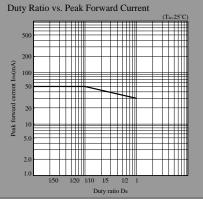










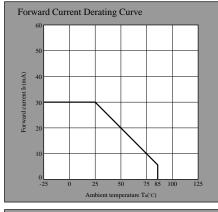


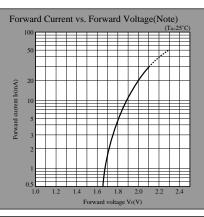
Note) Characteristics shown in diagrams are typical values. (not assurance value)

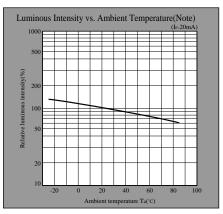
(Notice) • In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP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

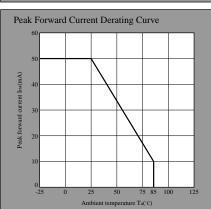
LED Lamp Characteristics Diagrams

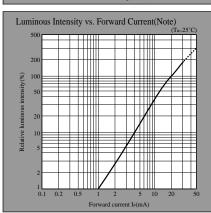
HS series

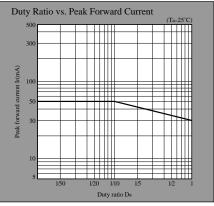




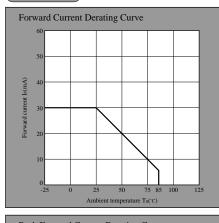


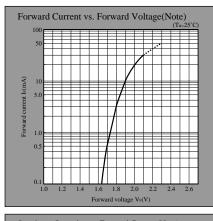


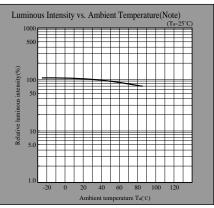


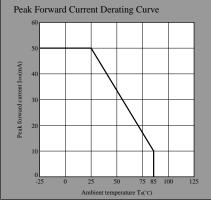


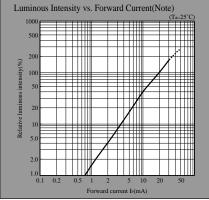
HY series

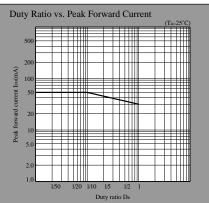








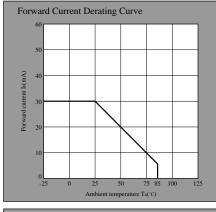


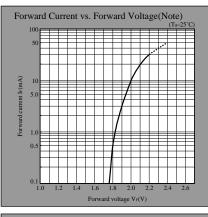


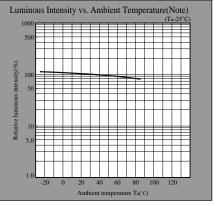
Note) Characteristics shown in diagrams are typical values. (not assurance value)

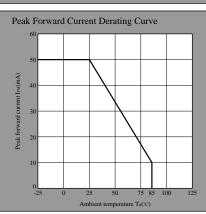
LED Lamp Characteristics Diagrams

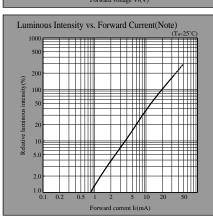
EG series

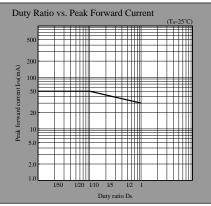




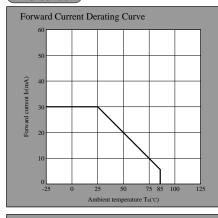


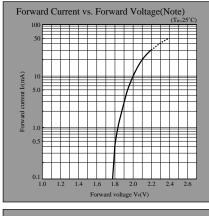


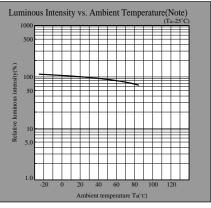


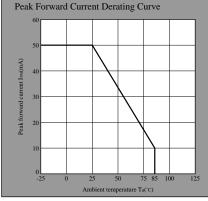


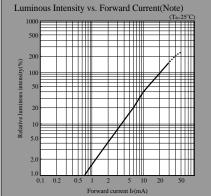
KG series

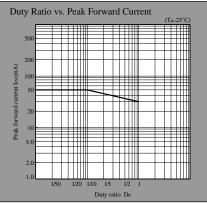












Note) Characteristics shown in diagrams are typical values. (not assurance value)