

Directly mountable, two-color LEDs ($\phi 5.0$ mm) SPR-325 Series

The SPR-325 series are $\phi 3.2$ mm, two-color LEDs which can be directly mounted on a printed circuit board. Red and green elements are built into a single package, and these LEDs are suitable for a wide range of uses.

●Features

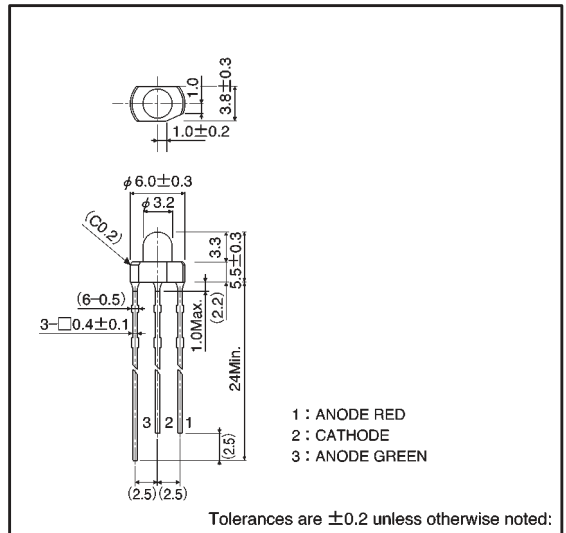
- 1) Two-color emission : red and green.
- 2) Epoxy resin package with a diameter of 3.2 mm.
- 3) Milky white lens.
- 4) High reliability.
- 5) Lead pitch of 2.5 mm.

●Selection guide

| | |
|----------------|-------------|
| Emitting color | Red / Green |
| Lens | |
| Milky white | SPR-325MVW |

Note: This product is only available on tape.

●External dimensions (Units: mm)



●Absolute maximum ratings (Ta = 25°C)

| Parameter | Symbol | Red | Green | Unit |
|-----------------------|------------------|-------------------------|-------|------|
| Power dissipation | P _D | 60 | 75 | mW |
| Forward current | I _F | 20 | 25 | mA |
| Peak forward current | I _{FP} | 60* | 60* | mA |
| Reverse voltage | V _R | 3 | 3 | V |
| Operating temperature | T _{opr} | -25~+85 | | °C |
| Storage temperature | T _{stg} | -30~+100 | | °C |
| Soldering temperature | — | 260°C 5 seconds maximum | | — |

* Pulse width 1ms Duty 1 / 5

●Electrical and optical characteristics (Ta = 25°C)

| Parameter | Symbol | Conditions | Red | | | Green | | | Unit |
|--------------------------|------------------|-------------------|------|------|------|-------|------|------|---------------|
| | | | Min. | Typ. | Max. | Min. | Typ. | Max. | |
| Forward voltage | V_F | $I_F=10\text{mA}$ | — | 2.0 | 3.0 | — | 2.1 | 3.0 | V |
| Reverse current | I_R | $V_R=3\text{V}$ | — | — | 10 | — | — | 10 | μA |
| Peak wavelength | λ_P | $I_F=10\text{mA}$ | — | 650 | — | — | 563 | — | nm |
| Spectral line half width | $\Delta \lambda$ | $I_F=10\text{mA}$ | — | 40 | — | — | 40 | — | nm |
| Viewing angle | $2\theta_{1/2}$ | Diffused | — | 40 | — | — | 40 | — | deg |
| Luminous intensity | I_v | $I_F=10\text{mA}$ | 2.2 | 6.3 | — | 3.6 | 10 | — | mcd |

●Luminous intensity vs. wavelength

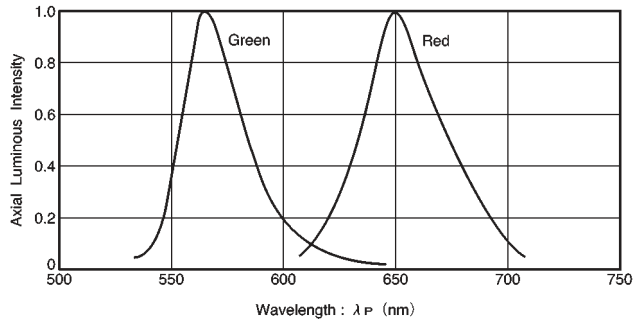


Fig. 1

●Directional pattern

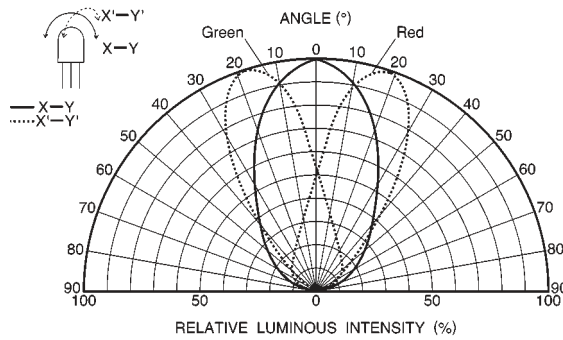


Fig. 2

●Electrical characteristic curves (red, green)

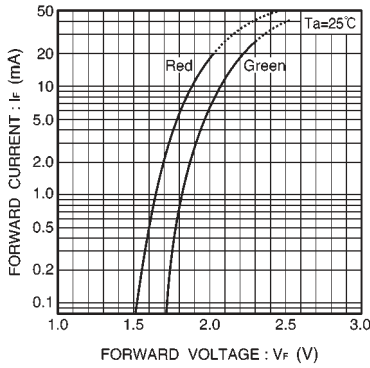


Fig. 3 Forward current vs. forward voltage

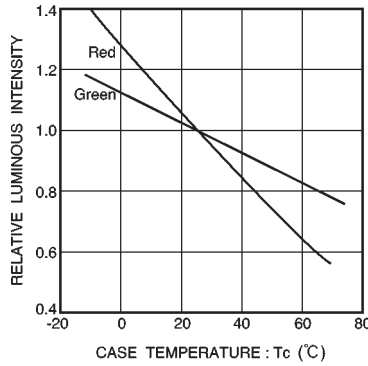


Fig. 4 Luminous intensity vs. case temperature

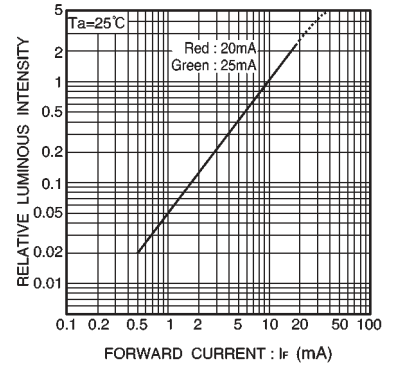


Fig. 5 Luminous intensity vs. forward current

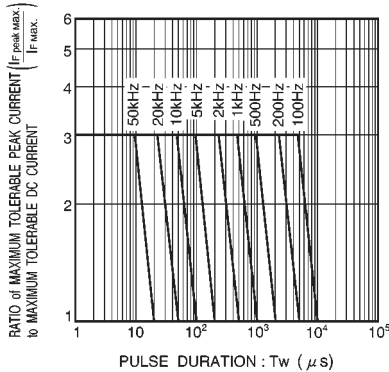


Fig. 6 Maximum tolerable peak current vs. pulse duration (red)

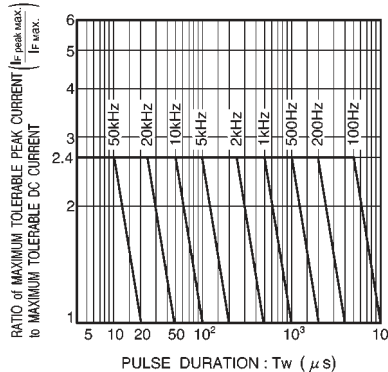


Fig. 7 Maximum tolerable peak current vs. pulse duration (green)

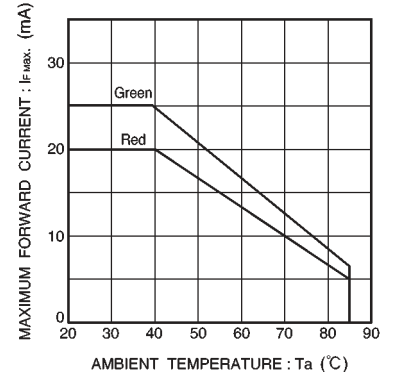


Fig. 8 Maximum forward current vs. ambient temperature