# Reverse mount type high brightness chip LED

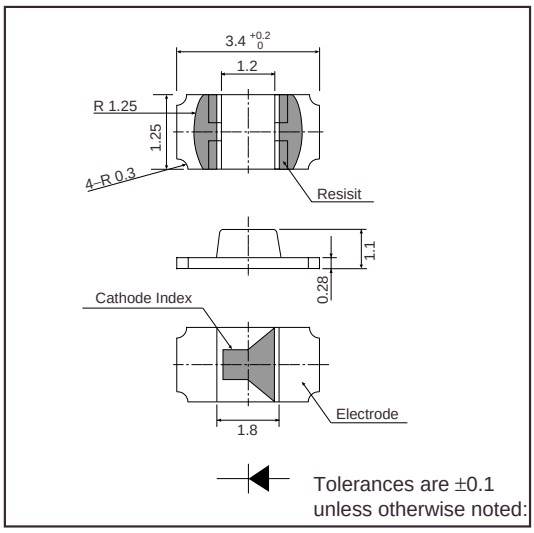
## SML- 811 Series

The SML-811 series are reverse mount type high brightness chip LEDs.

**●Features**

1) Three colors : red, orange and yellow.
2) Small shaped (3.4×1.25mm).
3) By AlGaInP die, It makes more brighter.

**●External dimensions** (Unit : mm)




**●Selection guide**

| Emitting color / Lens | Red | Orenge | Yellow |
|---|---|---|---|
| Transparent clear | SML-811UT | SML-811DT | SML-811WT |

**●Absolute maximum ratings** (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|---|---|---|---|
| Power dissipation | $P_D$ | 62 | mW |
| Forward current | $I_F$ | 25 | mA |
| Peak forward current | $I_{FP}$ | 100 | mA* |
| Reverse voltage | $V_R$ | 4 | V |
| Operating temperature | Topr | −30~+85 | °C |
| Storage temperature | Tstg | −40~+100 | °C |

* Duty 1/10 1KHZ

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

| Type | | Color | Forward voltage $V_F$(V) Typ. | Forward voltage $V_F$(V) Max. | Cond. $I_F$(mA) | Reverse current $I_R$(mA) Max. | Cond. $V_R$(V) | Luminous intensity $I_V$(mcd) Min. | Luminous intensity $I_V$(mcd) Typ | Cond. $I_F$(mA) | Peak wavelength $\lambda_P$(nm) Typ. | Cond. $I_F$(mA) | Spectral line half width $\Delta\lambda$(nm) Typ. | Cond. $I_F$(mA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SML-811 | UT | Red | 1.95 | 2.5 | 10 | 100 | 5 | 11.2 | 22.4 | 10 | 630 | 10 | 18 | 10 |
| | DT | Orange | 1.95 | 2.5 | 10 | 100 | 5 | 11.2 | 22.4 | 10 | 611 | 10 | 16 | 10 |
| | WT | Yellow | 1.95 | 2.5 | 10 | 100 | 5 | 9.0 | 18 | 10 | 590 | 10 | 15 | 10 |

## ●Directional pattern

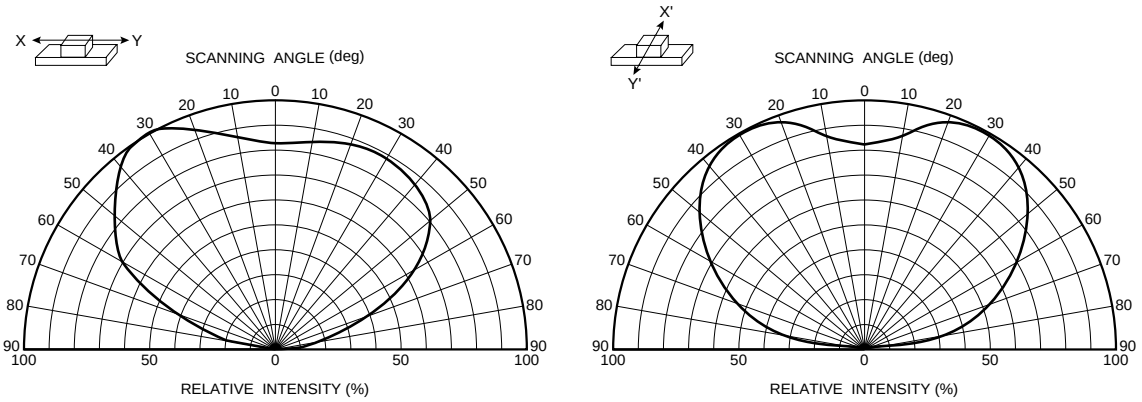



Fig.1 Directional pattern

## ●Electrical characteristic curves

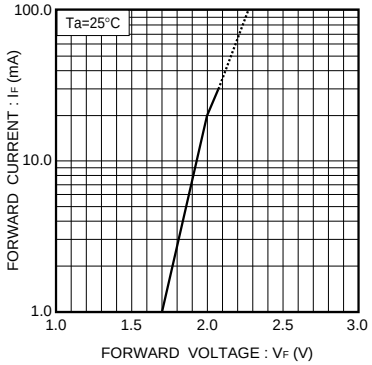



Fig.2 Forward current vs. forward voltage

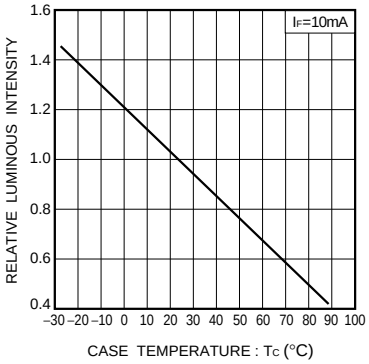



Fig.3 Relative lluminous intensity vs. case temperature

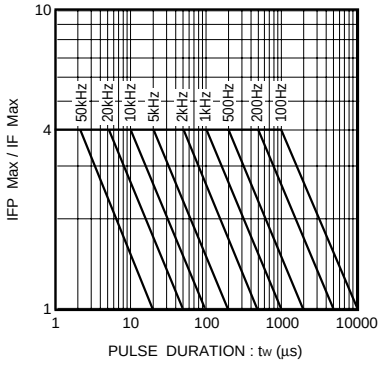



Fig.4 Patio of maximum tolerable peak current vs. pulse duration

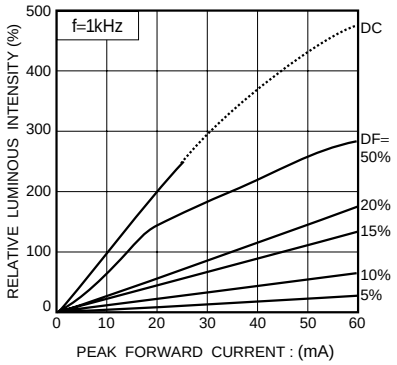



Fig.5 Relative luminous intensity vs. forward current

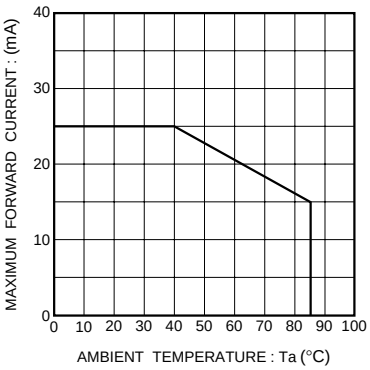



Fig.6 Maximum forward current vs. ambient temperature (Derating)