

# Reverse mount type high brightness chip LED

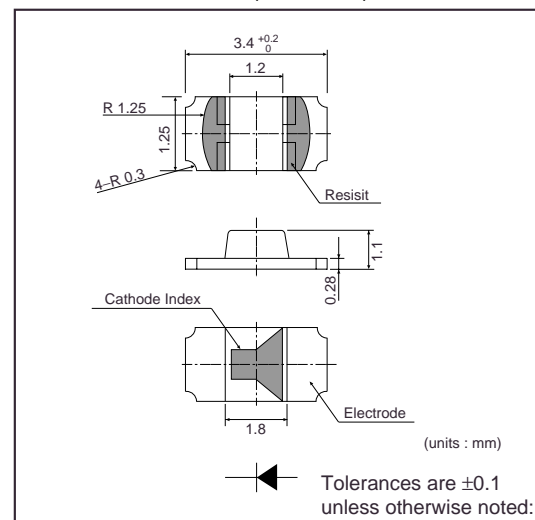
## SML- 811 Series

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 (Units : mm)



### ●Selection guide

Emitting color Lens	Red	Oreng	Yellow
	Transparent clear	SML-811UT	SML-811DT

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

Parameter	Symbol	Limits	Unit
Power dissipation	P <sub>D</sub>	62	mW
Forward current	I <sub>F</sub>	25	mA
Peak forward current	I <sub>FP</sub>	60	mA*
Reverse voltage	V <sub>R</sub>	4	V
Operating temperature	T <sub>opr</sub>	-30~+85	°C
Storage temperature	T <sub>stg</sub>	-40~+85	°C

\* Pulse width 1ms Duty 1 / 5

Light Emitting Diodes

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

Type	Parameter	Color	Forward voltage			Reverse current		Luminous intensity			Peak wavelength		Spectral line half width	
			V <sub>F</sub> (V)		Cond.	I <sub>R</sub> (mA)	Cond.	I <sub>V</sub> (mcd)		Cond.	λ <sub>F</sub> (nm)	Cond.	Δλ(nm)	Cond.
			Typ.	Max.	I <sub>F</sub> (mA)	Max.	V <sub>R</sub> (V)	Min.	Typ.	I <sub>F</sub> (mA)	Typ.	I <sub>F</sub> (mA)	Typ.	I <sub>F</sub> (mA)
SML-811	UT	Red	2.0	2.5	20	100	4	14	40	20	630	20	18	20
	DT	Orange	2.0	2.5	20	100	4	14	40	20	611	20	16	20
	WT	Yellow	2.0	2.5	20	100	4	14	40	20	590	20	15	20

●Directional pattern

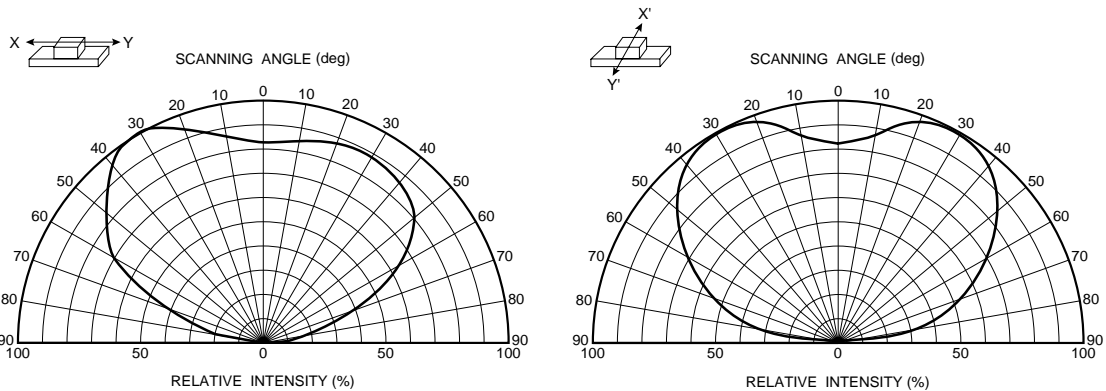


Fig.1 Directional pattern

●Electrical characteristic curves

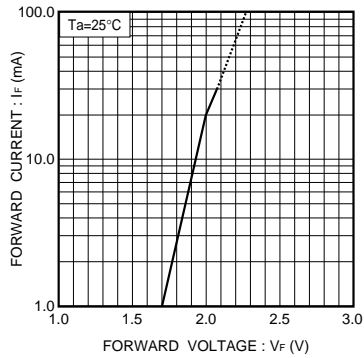


Fig.2 Forward current vs. forward voltage

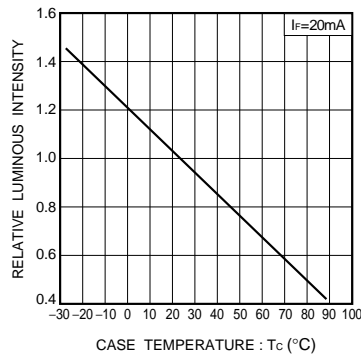


Fig.3 Relative luminous intensity vs. case temperature

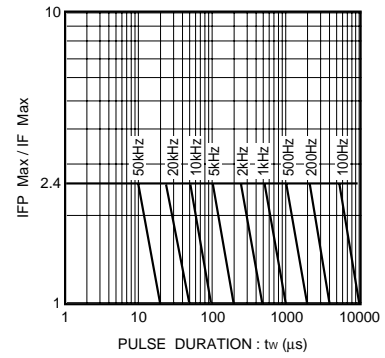


Fig.4 Ratio of maximum tolerable peak current vs. pulse duration

Light Emitting Diodes

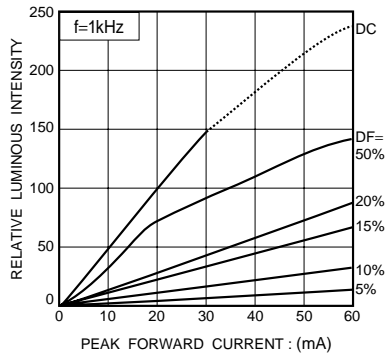


Fig.5 Relative luminous intensity vs. forward current

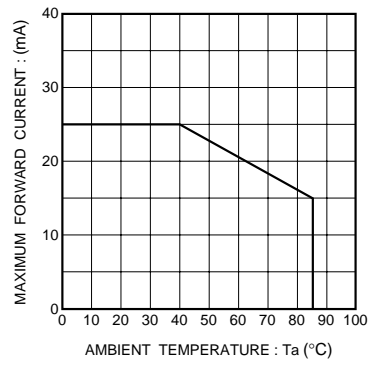


Fig.6 Maximum forward current vs. ambient temperature (Derating)