Reverse mount type high brightness chip LED

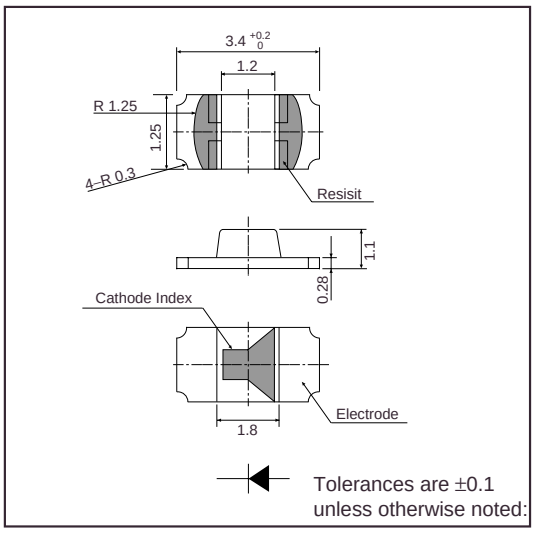
SML- 811 Series

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 λ_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

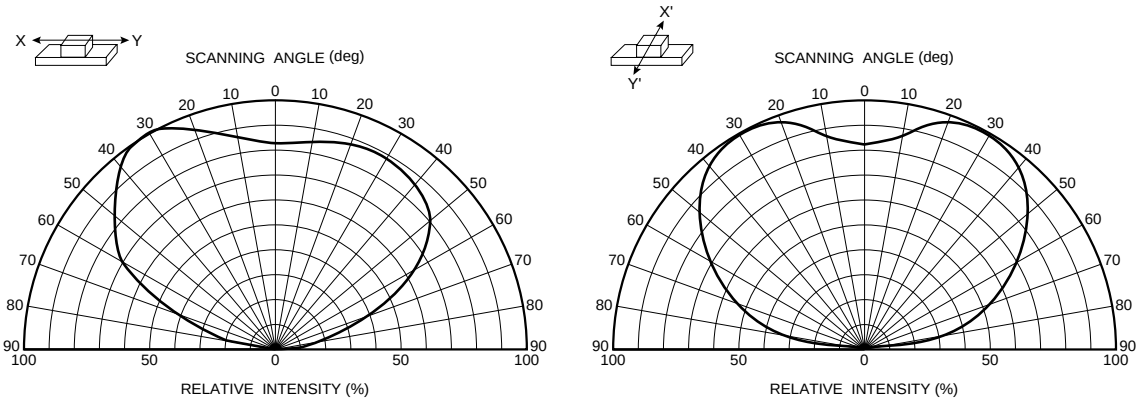


Fig.1 Directional pattern

●Electrical characteristic curves

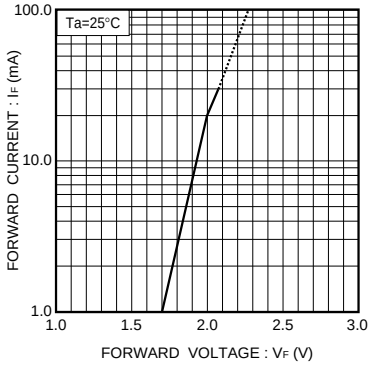


Fig.2 Forward current vs. forward voltage

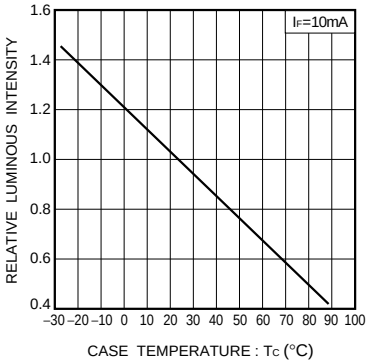


Fig.3 Relative lluminous intensity vs. case temperature

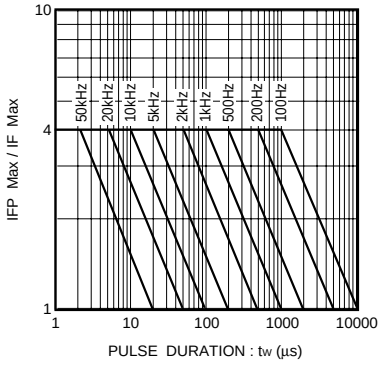


Fig.4 Patio of maximum tolerable peak current vs. pulse duration

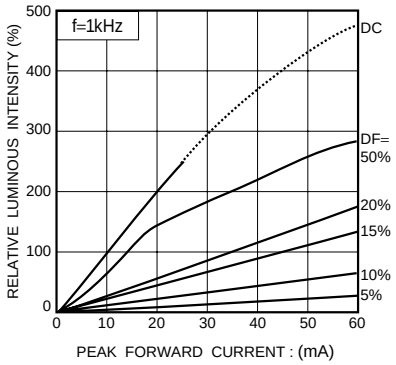


Fig.5 Relative luminous intensity vs. forward current

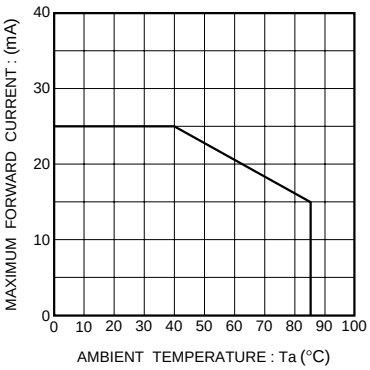


Fig.6 Maximum forward current vs. ambient temperature (Derating)