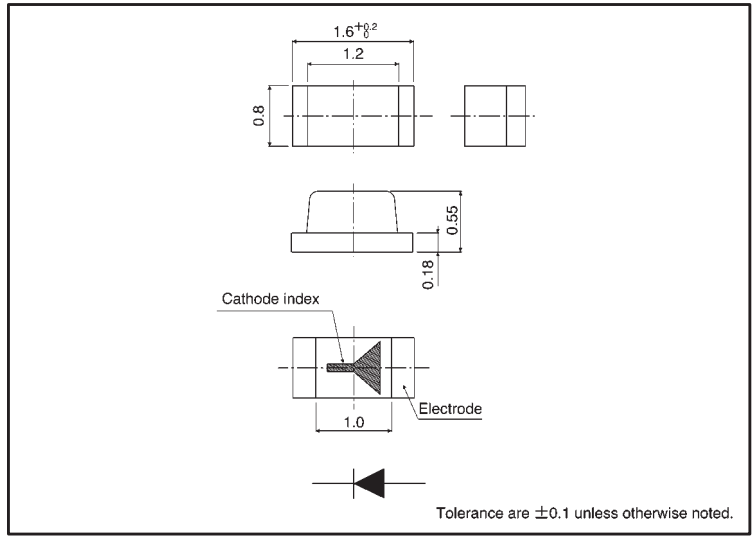
Ultra-thin chip LEDs

SML-510MW

The SML-510 is an ultra-thin chip LED. The compact and leadless design of these LEDs allows for high mounting density.

●External dimensions (Units: mm)



●Features

1) Thin shaped and leadless (1.6 × 0.8 mm, 0.55 mm thick).
2) Green colored light emission.
3) Can be mounted by automatic mounting.

●Selection guide

Emitting color / Lens	Green
Milky white	SML-510MW

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Green	Unit
		SML-510MW	
Power dissipation	P_D	55	mW
Forward current	I_F	20	mA
Peak forward current	I_{FP}	60	mA*
Reverse voltage	V_R	4	V
Operating temperature	Topr	−30～+85	℃
Storage temperature	Tstg	−40～+85	℃

* Pulse width 1ms Duty 1/5

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

Type \ Parameter		Color	Forward voltage			Reverse current		Luminous intensity			Peak wavelength		Spectral line half width	
			V_F(V)		Cond.	I_R(μA)	Cond.	I_V(mcd)		Cond.	λ_P(nm)	Cond.	Δλ(nm)	Cond.
			Typ.	Max.	I_F(mA)	Max.	V_R(V)	Min.	Typ.	I_F(mA)	Typ.	I_F(mA)	Typ.	I_F(mA)
SML-510	MW	Green	2.2	2.8	20	100	4	3.6	16.0	20	570	20	40	20

●Directional pattern

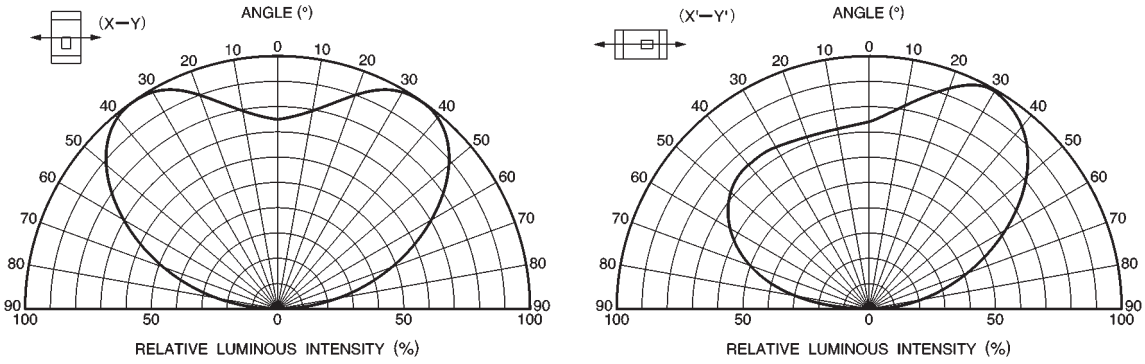


Fig.1 Directional pattern

●Electrical characteristic curves (SML-510MW) (green)

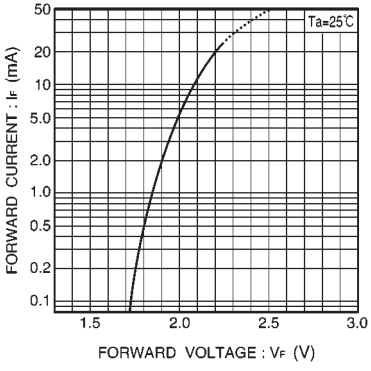


Fig.2 Forward current vs. forward voltage

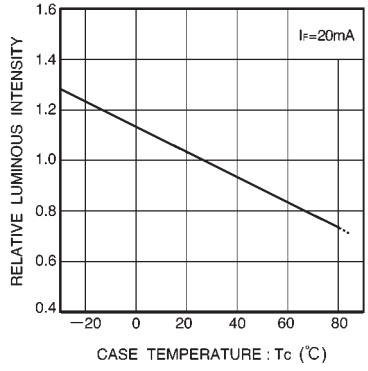


Fig.3 Luminous intensity vs. case temperature

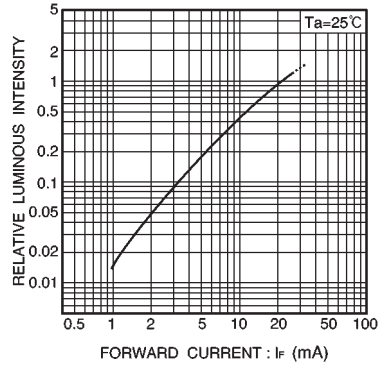


Fig.4 Luminous intensity vs. forward current

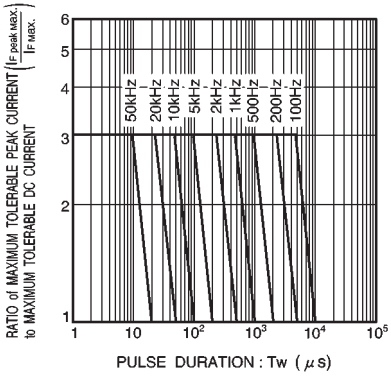


Fig. 5 Maximum tolerable peak current vs. pulse duration

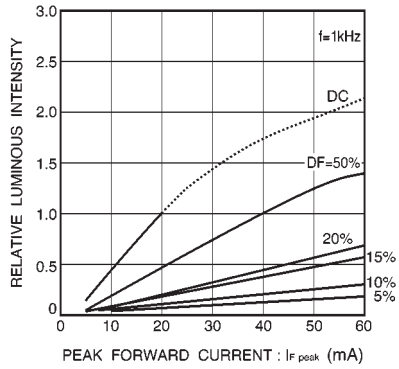


Fig.6 Luminous intensity vs. peak forward current

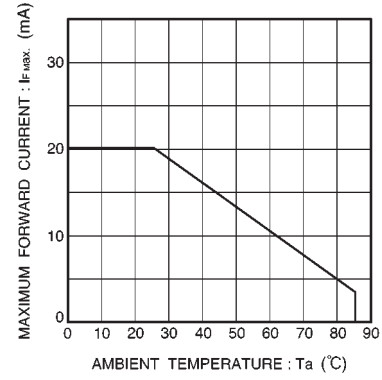


Fig. 7 Maximum forward current vs. ambient temperature