

Ultra-thin chip LEDs

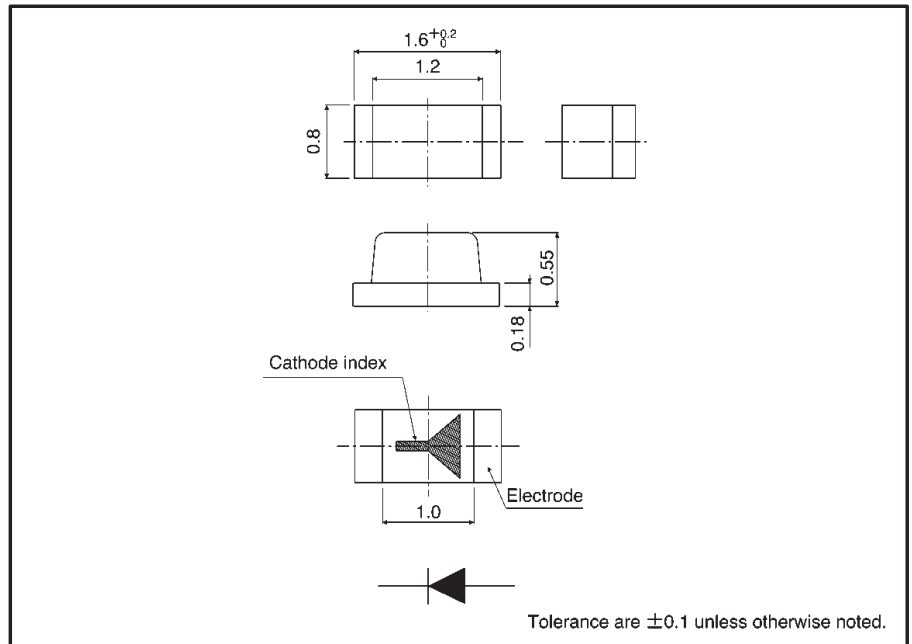
SML-510MW

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

●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.

●External dimensions (Units: mm)



●Selection guide

Emitting color	Green
Lens	
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	T _{opr}	-30~+85	°C
Storage temperature	T _{stg}	-40~+85	°C

* Pulse width 1ms Duty 1/5

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

Parameter Type	Color	Forward voltage			Reverse current		Luminous intensity			Peak wavelength		Spectral line half width		
		V _F (V)		Cond.	I _R (μA)	Cond.	I _v (mcd)		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

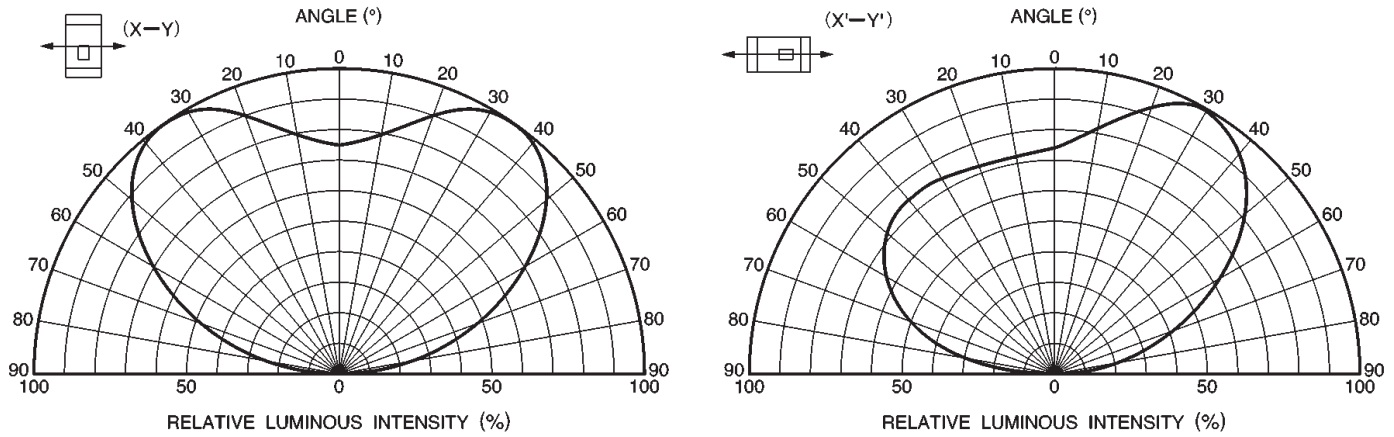


Fig.1 Directional pattern

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

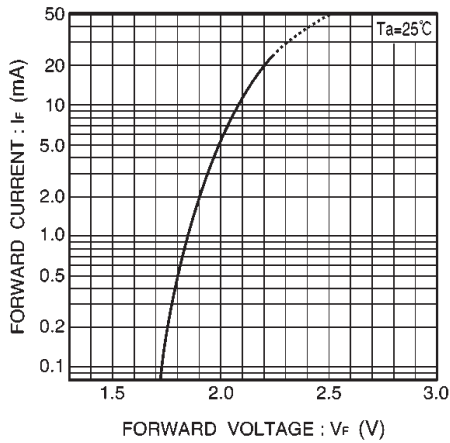


Fig.2 Forward current vs. forward voltage

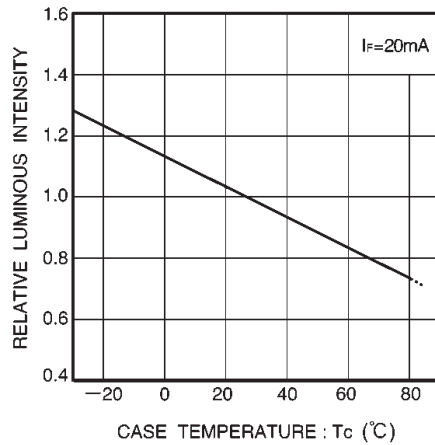


Fig.3 Luminous intensity vs. case temperature

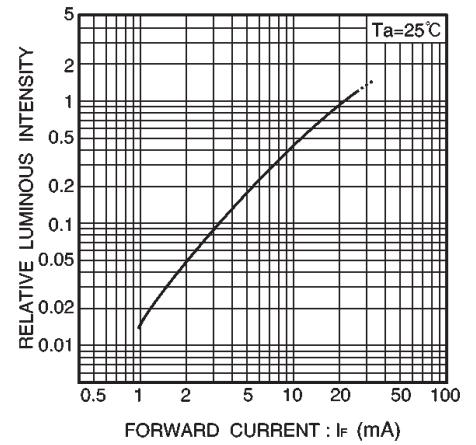


Fig.4 Luminous intensity vs. forward current

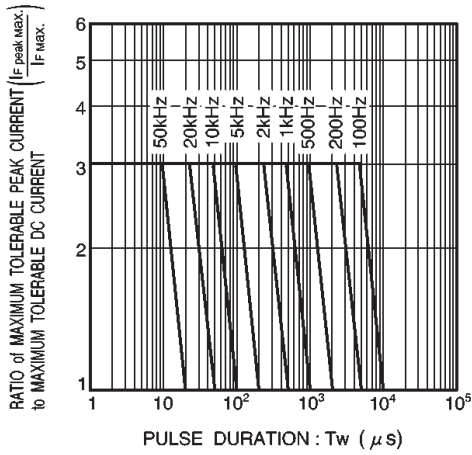


Fig. 5 Maximum tolerable peak current vs. pulse duration

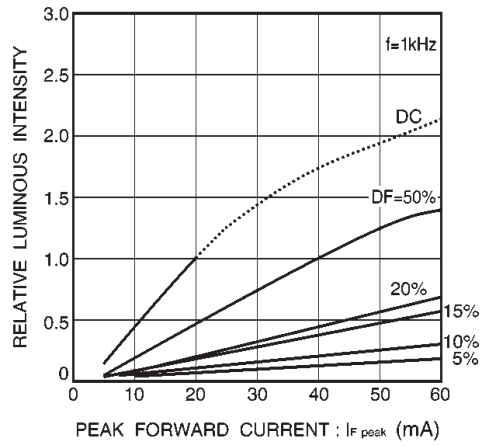


Fig.6 Luminous intensity vs. peak forward current

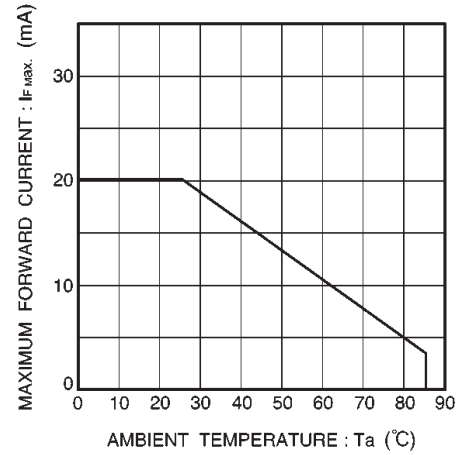


Fig. 7 Maximum forward current vs. ambient temperature

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