

**ROHM** SML-510MWT86 **PDF**

深圳创唯电子有限公司

<http://www.rohm-chip.com>

# Ultra-thin chip LEDs

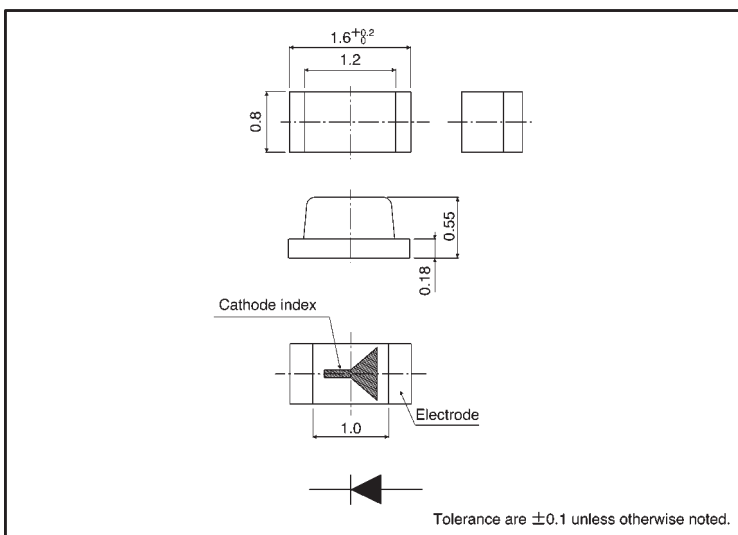
## SML-510MW

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 ( $1.6 \times 0.8$  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	
Lens	Green
	Milky white
	SML-510MW

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

Parameter	Symbol	Green	Unit
		SML-510MW	
Power dissipation	P <sub>D</sub>	55	mW
Forward current	I <sub>F</sub>	20	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

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

Parameter Type		Color	Forward voltage			Reverse current		Luminous intensity			Peak wavelength		Spectral line half width	
			V <sub>F</sub> (V)		Cond.	I <sub>R</sub> (μA)	Cond.	I <sub>v</sub> (mcd)		Cond.	λ <sub>P</sub> (nm)	Cond.	Δλ(nm)	Cond.
					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)
			Typ.	Max.										
SML-510	MW	Green	2.2	2.8	20	100	4	3.6	16.0	20	570	20	40	20

●Directional pattern

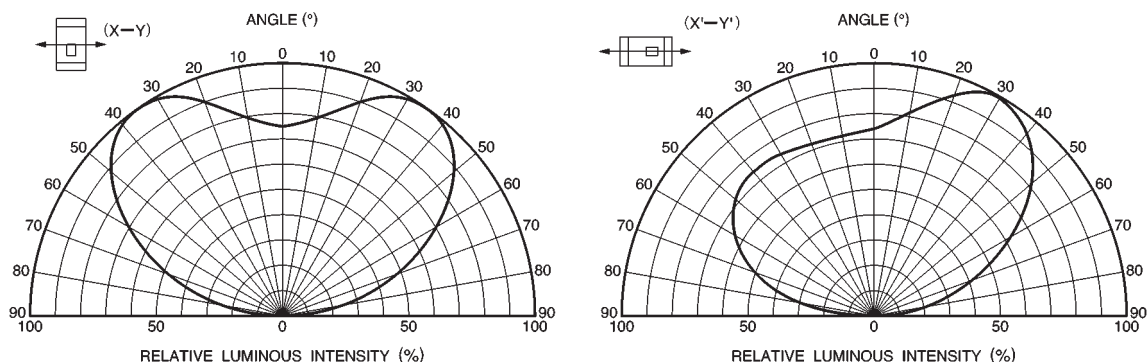


Fig.1 Directional pattern

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

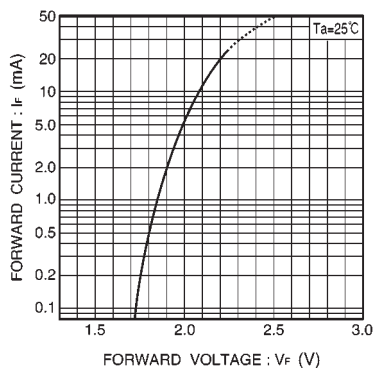


Fig.2 Forward current vs. forward voltage

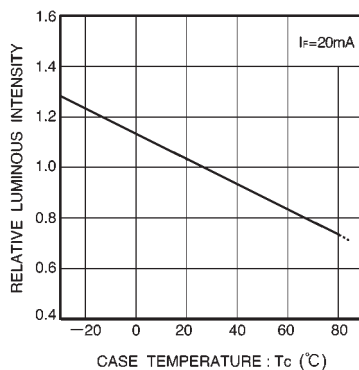


Fig.3 Luminous intensity vs. case temperature

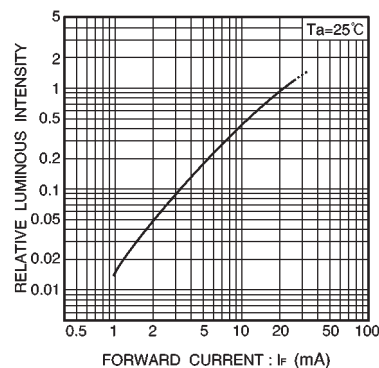


Fig.4 Luminous intensity vs. forward current

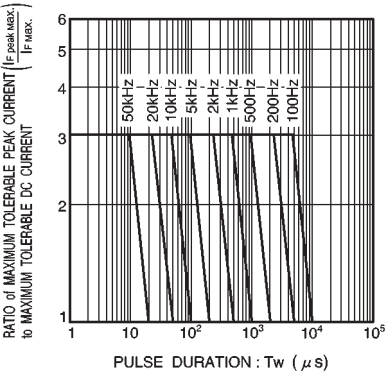


Fig. 5 Maximum tolerable peak current vs. pulse duration

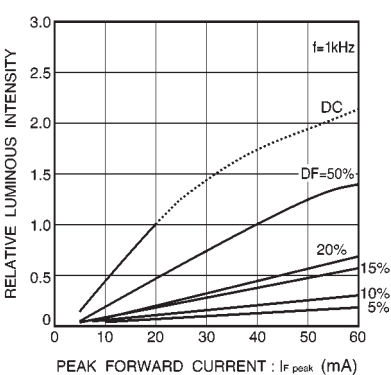


Fig.6 Luminous intensity vs. peak forward current

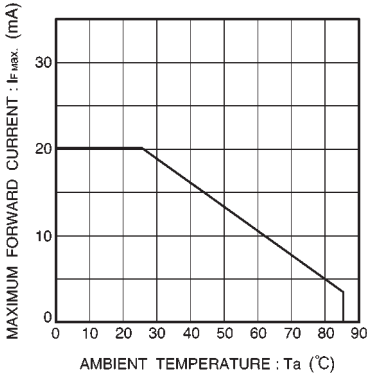


Fig. 7 Maximum forward current vs. ambient temperature