# Dual-Color Type Mini-molded chip LEDs

# SML-521 Series

		Green	Yellow	Orange	Red	
Package Size (mm)	Part No.	GaP		AlGaInP on GaAs		
		570nm	590nm	611nm	630nm	
(0606) 1.5×1.3	SML-521MYW	0	0	_	—	
	SML-521MDW	0	_	0	—	
	SML-521MUW	0	_	—	0	

## Absolute Maximum Ratings (Ta=25°C)

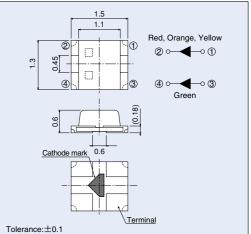
Part No.	Emitting color	Power dissipation Po (mW)	Forward current IF (mA)	Peak forward current * IFP (mA)	Reverse voltage VR (V)	Operating temperature Topr (°C)	Stotage temperature Tstg (°C)	
SML-521MYW	Green	70	25					
	Yellow	50	20					
SML-521MDW	Green	70	25	60	4	-30 to +85	-40 to +85	
	Orange	50	20	60	4	-30 10 +05		
SML-521MUW	Green	70	25					
	Red	50	20					

\* IFP measured under duty  $\leq 1/5$ , pulse width  $\leq 1$  ms.

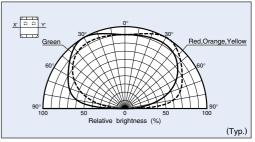
## Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage VF		Reverse current In		Light wavelength Peak Half-wave λρ Δλ			Brightness Iv		
		Тур. (V)	lF (mA)	Max. (μA)	Vr (V)	Typ. (nm)	Typ. (nm)	lF (mA)	Min. (mcd)	Typ. (mcd)	lF (mA)
SML-521MYW		2.2				570	40		5.6	16	
		1.9				590	15		22	63	
SML-521MDW	Milky White	2.2	20	100	4	570	40	20	5.6	16	20
		1.9		100		611	16		22	63	
SML-521MUW		2.2				570	40		5.6	16	
		1.9				630	15		22	63	

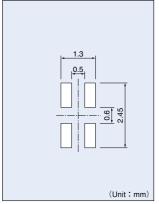
## External Dimensions (Unit : mm)



### Directivity

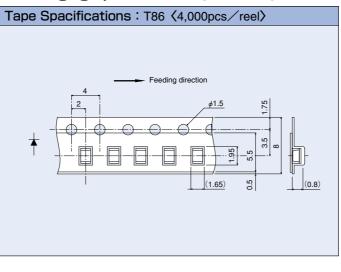


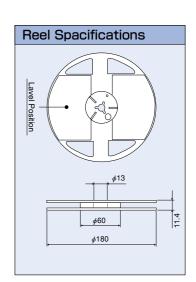
#### Recommemded Pad Layout



The recommended thickness of the screen mask for soldering is between 100 and  $200\,\mu$ m. The hole size of the screen mask should be same as the recommended land pattern or smaller.

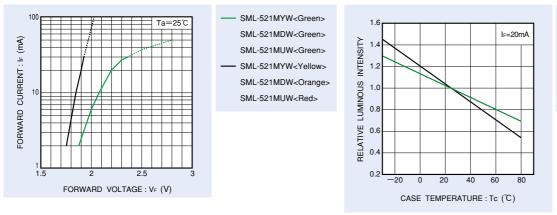
## Packaging Spacifications (Unit:mm)





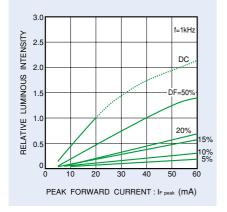
## Electrical Characteristic Curves

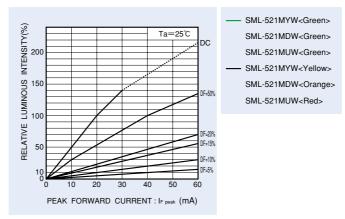
#### Forward Current - Forward Voltage



SML-521MYW<Green>
SML-521MDW<Green>
SML-521MUW<Green>
SML-521MYW<Yellow>
SML-521MDW<Orange>
SML-521MUW<Red>

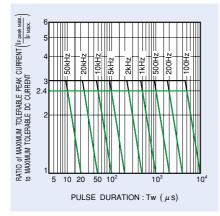
#### **Relative Luminous Intensity - Forward Current**





**Relative Luminous Intensity - Case Temperature** 

#### Ratio of Maximum Tolerable Peak Current - Pulse Duration



### Derating

SML-521MYW<Green>

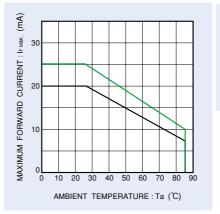
SML-521MDW<Green>

SML-521MUW<Green>

SML-521MYW<Yellow>

SML-521MDW<Orange>

SML-521MUW<Red>



SML-521MYW<Green> SML-521MDW<Green> SML-521MUW<Green> SML-521MVW<Yellow> SML-521MDW<Orange> SML-521MUW<Red>

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