# Low Current Type (IF≦10mA) Mini-molded chip LEDs

# SML-311 Series

Package Size (mm)	Yellow	Orange	Red		
		AlGaInP on GaAs			
	590nm	611nm	630nm		
1608 (0603) 1.6×0.8 t=0.8					
	SML-311YT	SML-311DT	SML-311UT		

## Absolute Maximum Ratings (Ta=25°C)

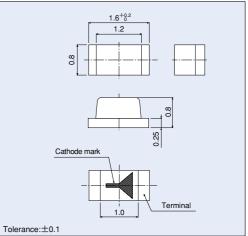
Part No.	Emitting color	Power dissipation Po (mW)	Forward current IF (mA)	Peak forward current * IFP (mA)	Reverse voltage VR (V)	Operating temperature T <sub>opr</sub> (°C)	Stotage temperature Tstg (°C)
SML-311YT	Yellow						
SML-311DT	Orange	44	20	60	4	-30 to +85	-40 to +85
SML-311UT	Red	]					

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

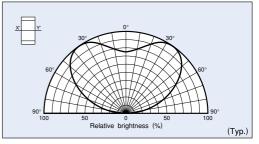
## Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color			curi	Reverse current In		Light wavelength Peak Half-wave $\lambda p \qquad \Delta \lambda$			Brightness Iv		
		Тур. (V)	lF (mA)	Max. (μA)	Vr (V)	Typ. (nm)	Typ. (nm)	lF (mA)	Min. (mcd)	Typ. (mcd)	lF (mA)	
SML-311YT	Transparent Clear					590	15					
SML-311DT		1.8	2	100	4	611	16	2	0.9	2.5	2	
SML-311UT						630	18					

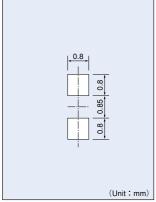
## External Dimensions (Unit : mm)



#### Directivity

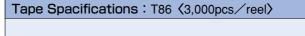


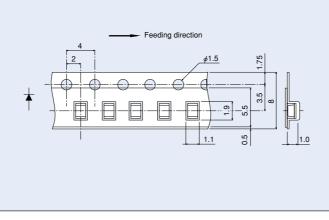
#### Recommended Pad Lavout

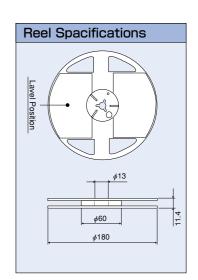


The recommended thickness of the screen mask for soldering is between 100 and  $200\,\mu$ m. The hole size of the screen mask should be same as the recommended land pattern or smaller.

## Packaging Spacifications (Unit : mm)

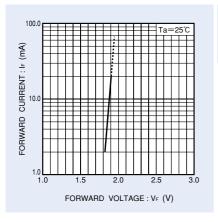






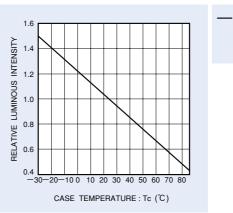
## Electrical Characteristic Curves

#### Forward Current - Forward Voltage



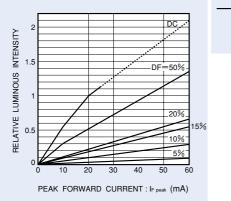
- SML-311YT SML-311DT SML-311UT

#### Relative Luminous Intensity - Case Temperature



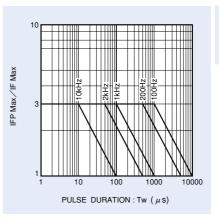
- SML-311YT SML-311DT SML-311UT

**Relative Luminous Intensity - Forward Current** 



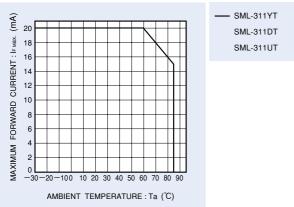
SML-311YT
SML-311DT
SML-311UT

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



SML-311YT SML-311DT SML-311UT

# Derating



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