

# 0805<2.0×1.25 t=0.8mm> High Brightness Type

## SML-212 Series

Emitting Color	Yellow		Orange		Red	
Material	AlGaInP on GaAs					
Package Size(mm)						
2012(0805) 2.0×1.25(t=0.8)						
Part No.	SML-212YT	SML-212WT(A)	SML-212DT		SML-212U2T(A)	SML-212VT

### Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation P <sub>D</sub> (mW)	Forward current I <sub>F</sub> (mA)	Peak forward current I <sub>FP</sub> (mA)	Reverse voltage V <sub>R</sub> (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
SML-212YT	Yellow			60 *1	4	-30 to +85	-40 to +85
SML-212WT(A)				100 *2	5	-40 to +100	-40 to +100
SML-212DT	Orange	75	30	60 *1	4	-30 to +85	-40 to +85
SML-212VT	Red			60 *1	4	-30 to +85	-40 to +85
SML-212U2T(A)				100 *2	5	-40 to +100	-40 to +100

\*1:Duty ≤ 1/5, pulse width ≤ 1ms.

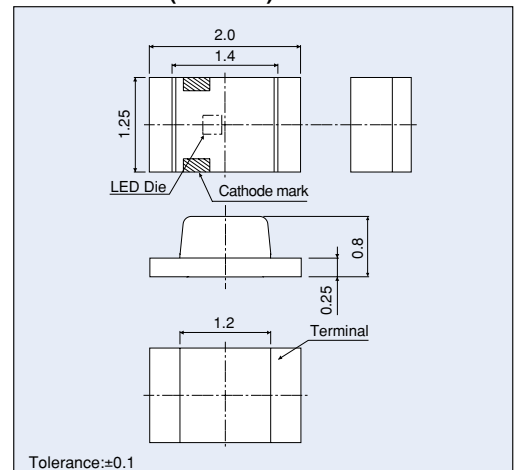
\*2:Duty ≤ 1/10, 1kHz

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

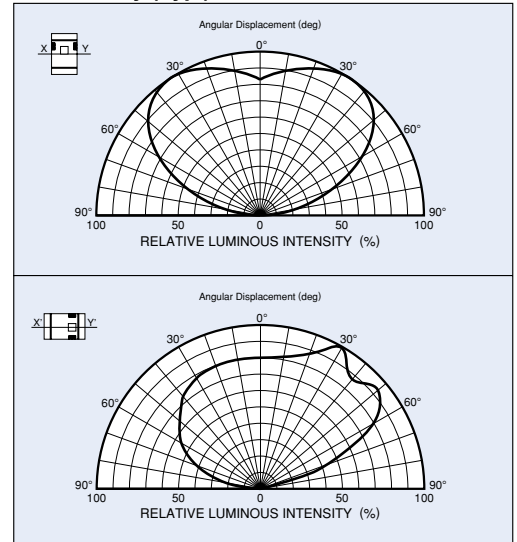
Part No.	Resin Color	Forward voltage V <sub>F</sub>		Reverse current I <sub>R</sub>		Light wavelength			Brightness I <sub>v</sub>		
		Typ. (V)	I <sub>F</sub> * (mA)	Max. (μA)	V <sub>R</sub> (V)	Peak λ <sub>p</sub> (nm)	Half-wave Δλ (nm)	I <sub>F</sub> * (mA)	Min. (mcd)	Typ. (mcd)	I <sub>F</sub> * (mA)
SML-212YT	Transparent Colorless	2.05	20	100	4	591	15	20	22	63	20
SML-212WT(A)		2.0		10	5	590	15		112	224	
SML-212DT		2.05	100	4	611	17	22	63			
SML-212VT					639	20					
SML-212U2T(A)		2.0	10	5	625	17	71	140			

\* Pulse width : 30ms (SML-212WT(A)/SML-212U2T(A))

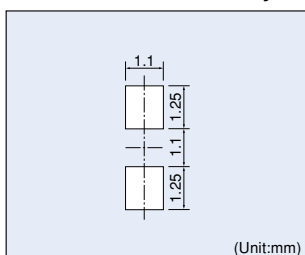
### Dimensions (Unit:mm)



### Directivity (Typ.)

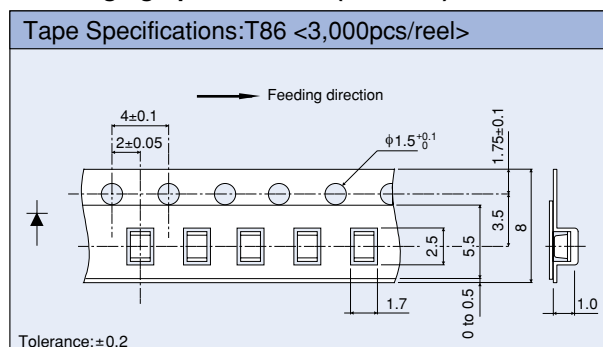


### Recommended Pad Layout

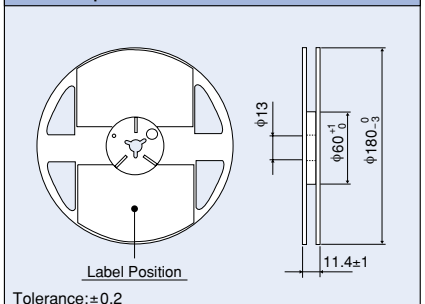


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

### Packaging Specifications (Unit:mm)

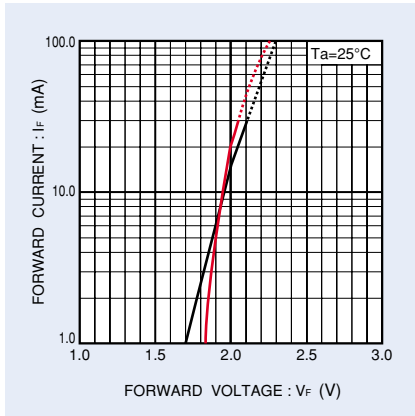


### Reel Specifications



## Electrical Characteristic Curves

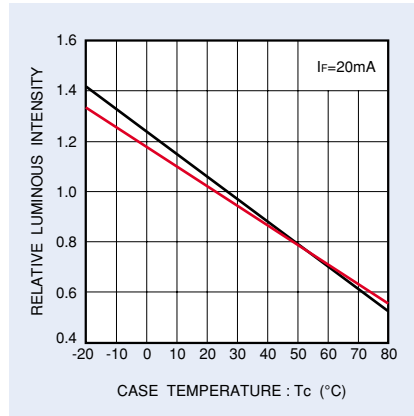
### Forward Current - Forward Voltage



— SML-212YT  
SML-212DT  
SML-212VT

— SML-212WT(A)  
SML-212U2T(A)

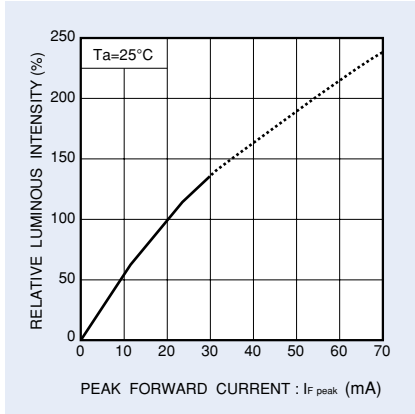
### Relative Luminous Intensity - Case Temperature



— SML-212YT  
SML-212DT  
SML-212VT

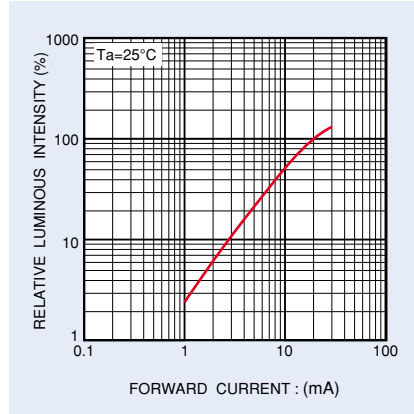
— SML-212WT(A)  
SML-212U2T(A)

### Relative Luminous Intensity - Forward Current



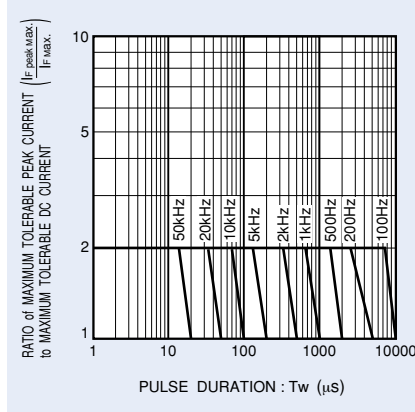
— SML-212YT  
SML-212DT  
SML-212VT

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



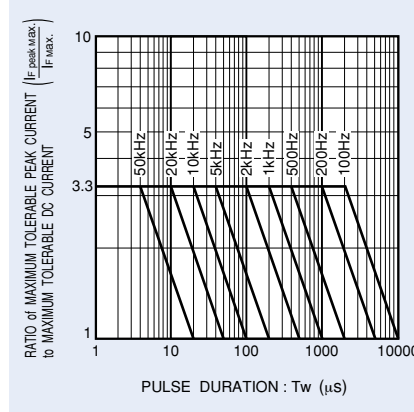
— SML-212WT(A)  
SML-212U2T(A)

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



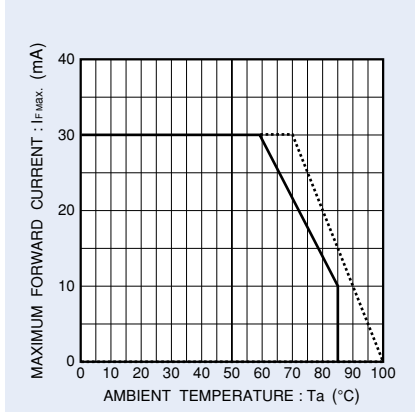
— SML-212YT  
SML-212DT  
SML-212VT

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



— SML-212WT(A)  
SML-212U2T(A)

### Derating



— SML-212YT  
SML-212DT  
SML-212VT

..... SML-212WT(A)  
SML-212U2T(A)

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