

# 0603<1.6×0.8 t=0.36mm> Standard Type



## SML-E12\*8 Series EXCELED™

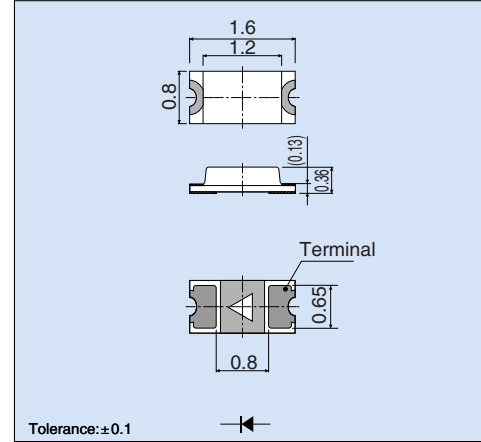
Emitting Color	Pure Green	Green(Yellowish Green)	Yellow	Orange	Red	
Material	AlGaInP on GaAs					
Package Size(mm)						
Part No.	SML-E12P8W	SML-E12M8W	SML-E12Y8W	SML-E12D8W	SML-E12U8W	SML-E12V8W

### 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-E12P8W	Pure Green						
SML-E12M8W	Green (Yellowish Green)						
SML-E12Y8W	Yellow	54	20	100	5	-40 to +85	-40 to +100
SML-E12D8W	Orange						
SML-E12U8W	Red						
SML-E12V8W	Red						

\*:Duty ≤ 1/10, 1kHz.

### Dimensions (Unit:mm)

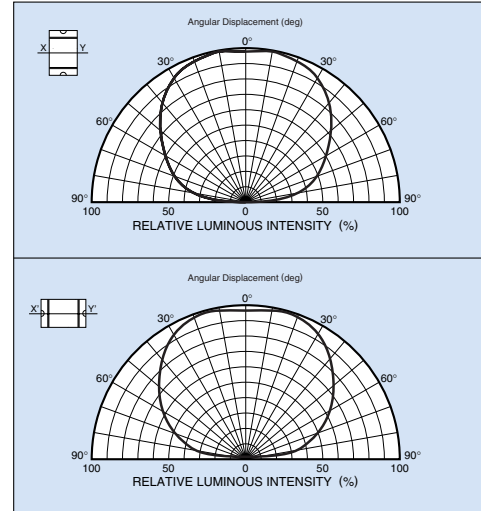


### Electrical Optical Characteristics (Ta=25°C)

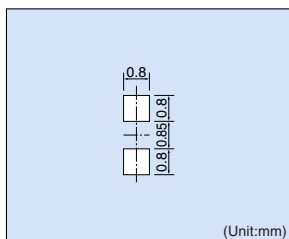
Part No.	Resin Color	Forward voltage V <sub>F</sub>		Reverse current I <sub>R</sub>		Light wavelength Dominant λ <sub>D</sub>		Brightness I <sub>v</sub>		
		Typ. (V)	I <sub>F</sub> * (mA)	Max. (μA)	V <sub>R</sub> (V)	Typ. (nm)	I <sub>F</sub> * (mA)	Min. (mcd)	Typ. (mcd)	I <sub>F</sub> * (mA)
SML-E12P8W						560		2.5	6.3	
SML-E12M8W						572		10	25	
SML-E12Y8W	Diffused	2.2	20	10	4	590	20	25	63	20
SML-E12D8W	Milky White					605		40	100	
SML-E12U8W						620		25	63	
SML-E12V8W						630		16	40	

\*Pulse width : 30ms.

### Directivity (Typ.)

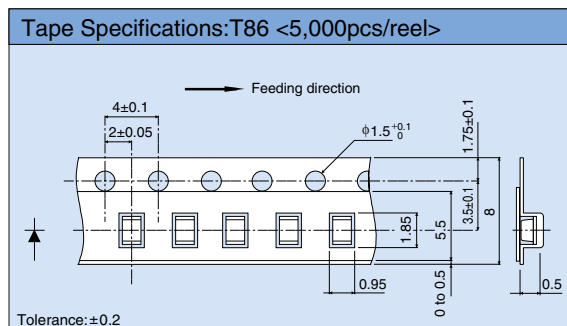


### Recommended Pad Layout

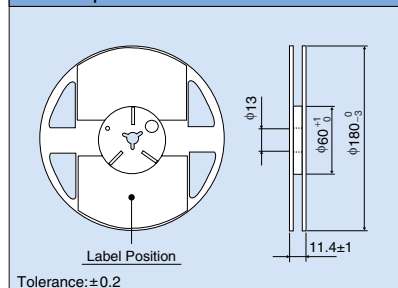


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

### Packaging Specifications (Unit:mm)

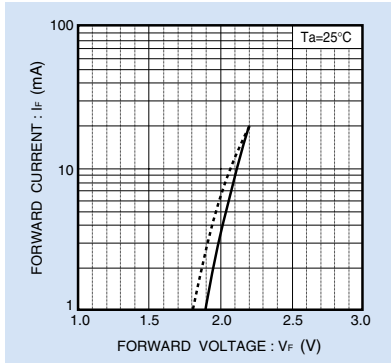


### Reel Specifications



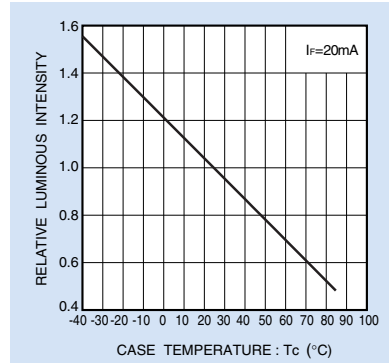
## Electrical Characteristic Curves

### Forward Current - Forward Voltage



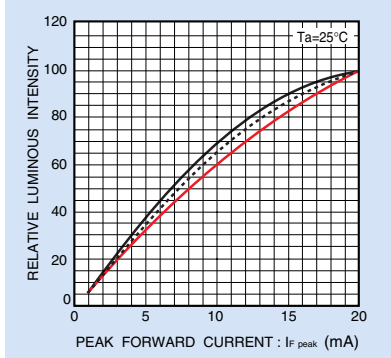
- SML-E12P8T
- SML-E12M8T
- SML-E12Y8T
- ..... SML-E12D8T
- SML-E12V8T
- SML-E12U8T

### Relative Luminous Intensity - Case Temperature



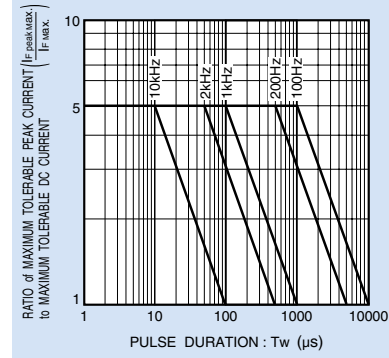
- SML-E12P8T
- SML-E12M8T
- SML-E12Y8T
- SML-E12D8T
- SML-E12V8T
- SML-E12U8T

### Relative Luminous Intensity - Forward Current



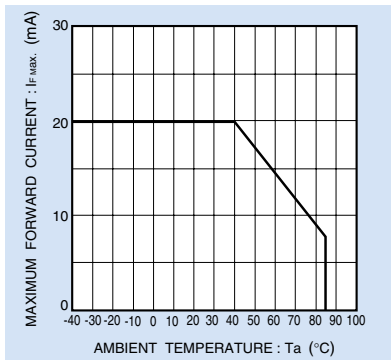
- SML-E12M8T
- SML-E12Y8T
- ..... SML-E12P8T
- SML-E12D8T
- SML-E12U8T
- SML-E12V8T

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



- SML-E12P8T
- SML-E12M8T
- SML-E12Y8T
- SML-E12D8T
- SML-E12V8T
- SML-E12U8T

### Derating



- SML-E12P8T
- SML-E12M8T
- SML-E12Y8T
- SML-E12D8T
- SML-E12V8T
- SML-E12U8T

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