

0603<1.6×0.8 t=0.36mm> High Brightness Type

SML-E12 Series

Emitting Color	Orange	Red
Material	AlGaInP on GaAs	
Package Size(mm)		
Part No.	SML-E12DW	SML-E12UW

Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation P _D (mW)	Forward current I _F (mA)	Peak forward current * I _{FP} (mA)	Reverse voltage V _R (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
SML-E12DW	Orange	62	25	60	4	-30 to +85	-40 to +85
SML-E12UW	Red						

*:Duty ≤ 1/5, pulse width ≤ 1ms.

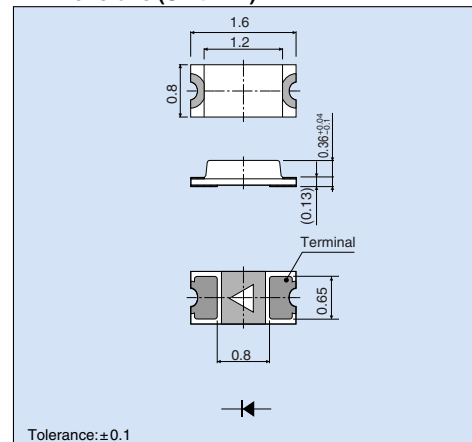
Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V _F		Reverse current I _R		Light wavelength Dominat λ _D ²		Brightness I _v		
		Typ. (V)	I _F ⁻¹ (mA)	Max. (μA)	V _R (V)	Typ. (nm)	I _F ⁻¹ (mA)	Min. (mcd)	Typ. (mcd)	I _F ⁻¹ (mA)
SML-E12DW	Milky White	1.9	20	100	4	606.5	20	56	200	20
SML-E12UW	Diffused	2.1				624		36	100	

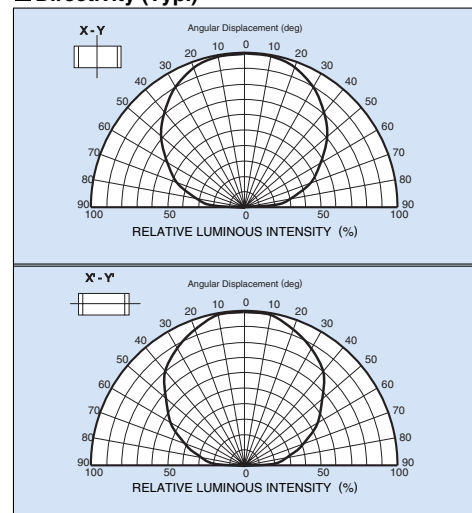
*1:Pulse width : 30msec

*2:Measurement tolerance:±1nm

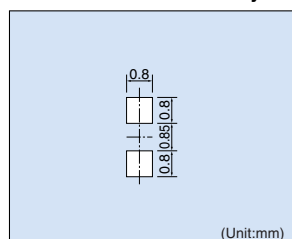
Dimensions (Unit:mm)



Directivity (Typ.)

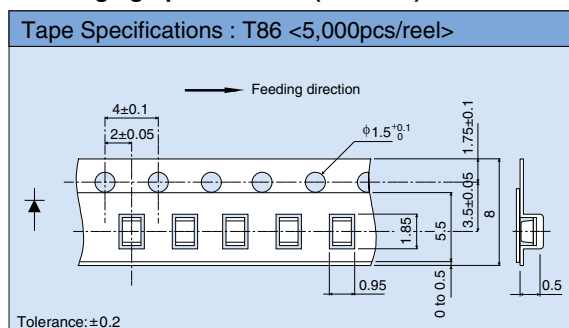


Recommended Pad Layout

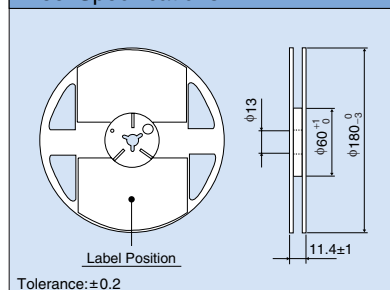


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

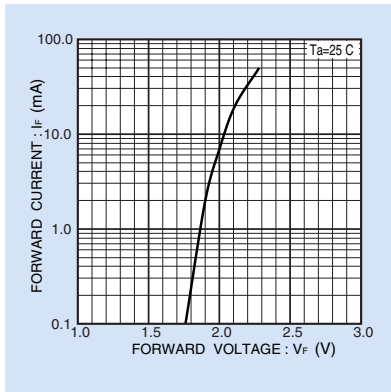


Reel Specifications



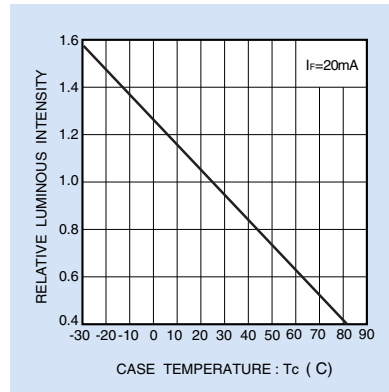
Electrical Characteristic Curves

Forward Current - Forward Voltage



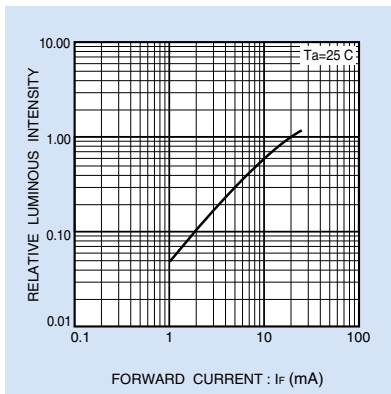
— (SML-E12DW
SML-E12UW

Relative Luminous Intensity - Case Temperature



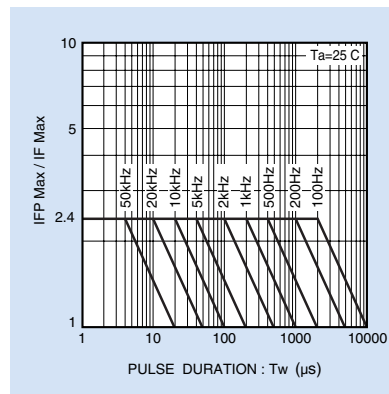
— (SML-E12DW
SML-E12UW

Relative Luminous Intensity - Forward Current



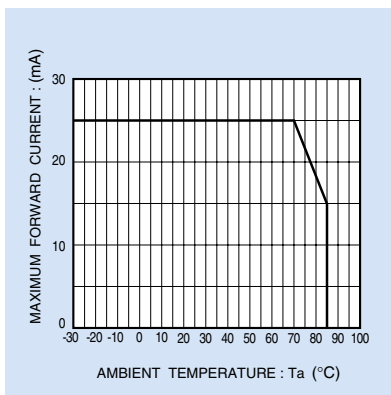
— (SML-E12DW
SML-E12UW

Ratio of Maximum Tolerable Peak Current - Pulse Duration



— (SML-E12DW
SML-E12UW

Derating



— (SML-E12DW
SML-E12UW

Notes

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