

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

SML-E12 Series

Emitting Color	Orange	Red
Material	AlGaNp on GaAs	
Package Size(mm)	 1608(0603) 1.6×0.8(t=0.36)	
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 \leq 1/ 5, pulse width \leq 1ms.

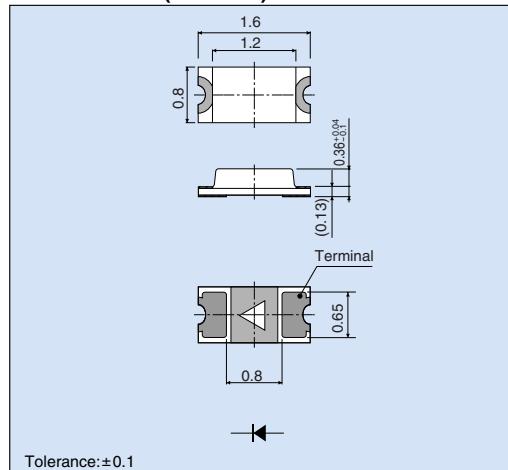
■ Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V_F		Reverse current I_R		Light wavelength Dominant $\lambda D^{1/2}$		Brightness I_V		
		Typ. (V)	I_F^{-1} (mA)	Max. (μ A)	V_R (V)	Typ. (nm)	I_F^{-1} (mA)	Min. (mcd)	Typ. (mcd)	I_F^{-1} (mcd)
SML-E12DW	Milky White	1.9	20	100	4	606.5	20	56	200	20
SML-E12UW		2.1				624		36	100	

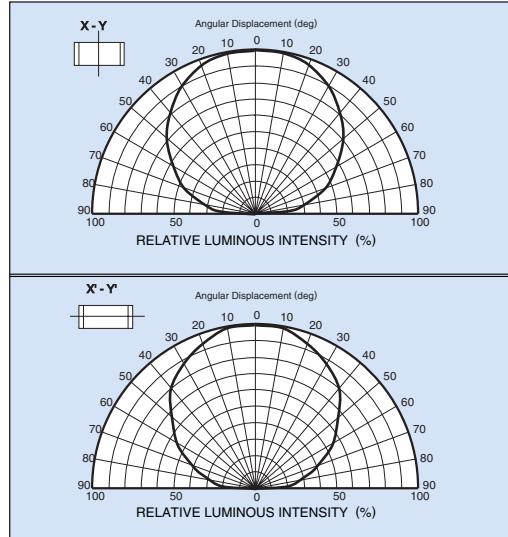
*1:Pulse width : 30msec

*2:Measurement tolerance: $\pm 1\text{nm}$

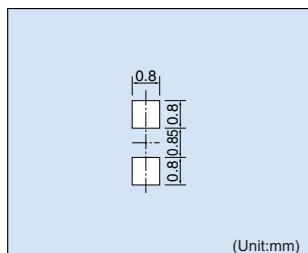
■Dimensions (Unit:mm)



■ Directivity (Typ.)



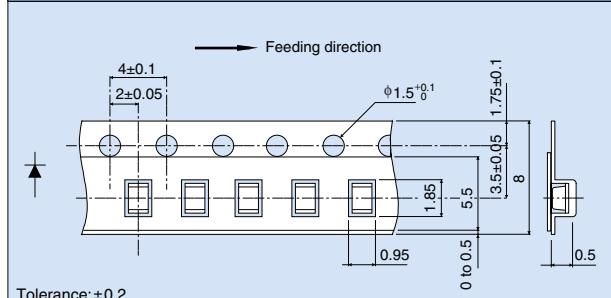
■ Recommended Pad Layout



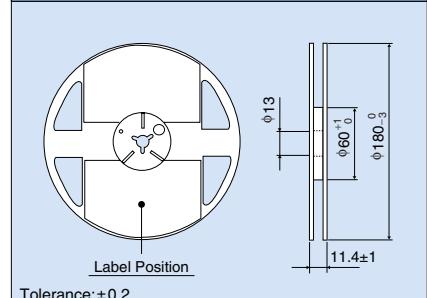
The recommended thickness of the screen mask for soldering is between 100 and 150 μ m. The hole size of the screen mask should be same as the recommended land pattern or smaller.

■Packaging Specifications (Unit:mm)

Tape Specifications : T86 <5,000pcs/reel>

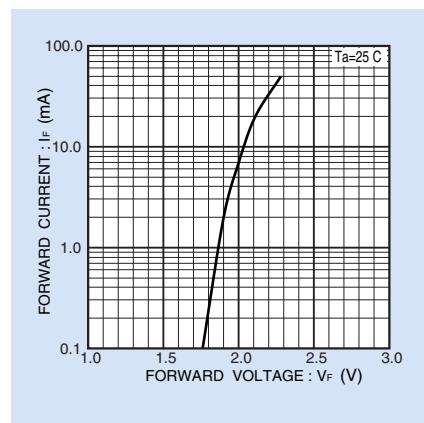


Reel Specifications



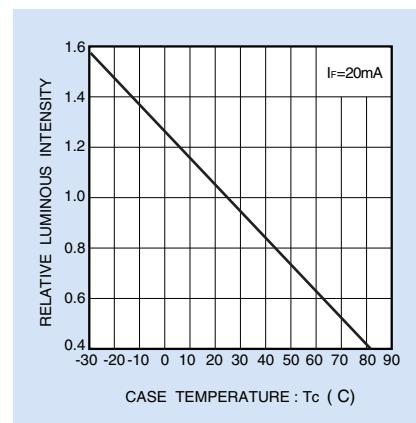
■ Electrical Characteristic Curves

Forward Current - Forward Voltage



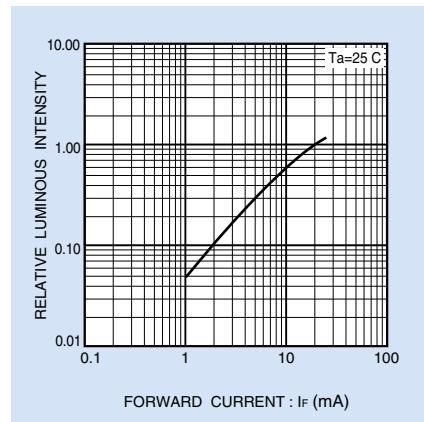
— (SML-E12DW
SML-E12UW)

Relative Luminous Intensity - Case Temperature



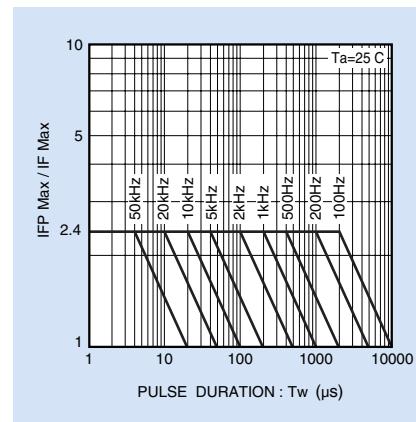
— (SML-E12DW
SML-E12UW)

Relative Luminous Intensity - Forward Current



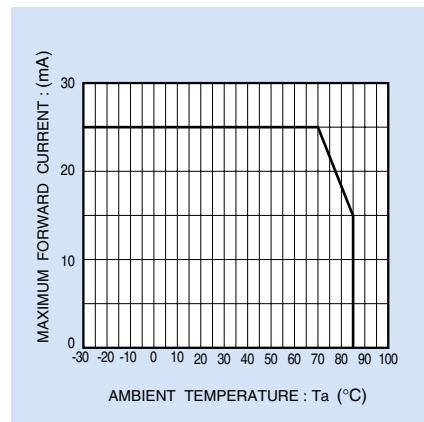
— (SML-E12DW
SML-E12UW)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



— (SML-E12DW
SML-E12UW)

Derating



— (SML-E12DW
SML-E12UW)

Appendix

Notes

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