


0603<1.6×0.8 t=0.55mm> Standard Type

SML-D12*8 Series EXCELED™

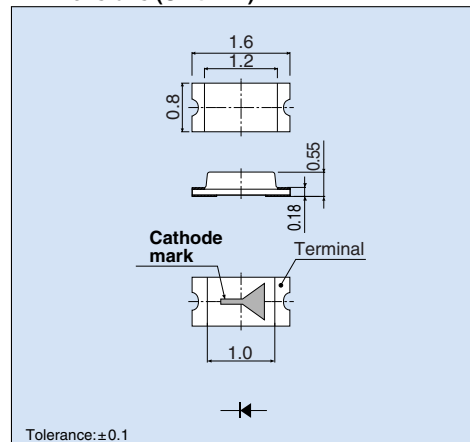
Emitting Color	Pure Green	Green(Yellowish Green)	Yellow	Orange	Red	
Material	AlGaInP on GaAs					
Package Size(mm)						
	1608(0603) 1.6×0.8(t=0.55)					
Part No.	SML-D12P8W	SML-D12M8W	SML-D12Y8W	SML-D12D8W	SML-D12U8W	SML-D12V8W

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-D12P8W	Pure Green						
SML-D12M8W	Green (Yellowish Green)						
SML-D12Y8W	Yellow	54	20	100	5	-40 to +85	-40 to +100
SML-D12D8W	Orange						
SML-D12U8W	Red						
SML-D12V8W	Red						

*:Duty ≤ 1/10, 1kHz.

Dimensions (Unit:mm)

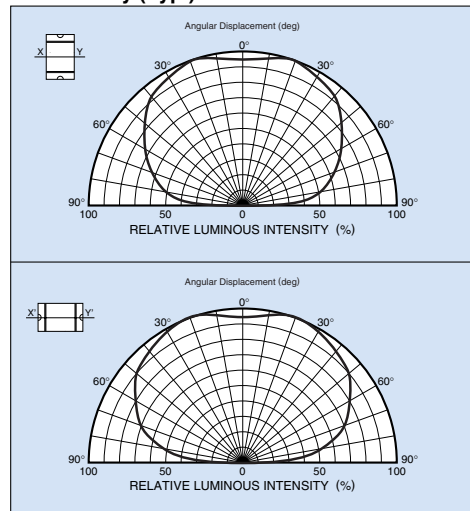


Electrical Optical Characteristics (Ta=25°C)

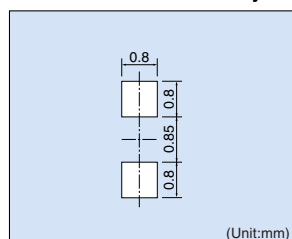
Part No.	Resin Color	Forward voltage V _F		Reverse current I _R		Light wavelength Dominant λ _D		Brightness I _v		
		Typ. (V)	I _F * (mA)	Max. (μA)	V _R (V)	Typ. (nm)	I _F * (mA)	Min. (mcd)	Typ. (mcd)	I _F * (mA)
SML-D12P8W						560		2.5	6.3	
SML-D12M8W						572		10	25	
SML-D12Y8W	Diffused	2.2	20	10	4	590	20	25	63	20
SML-D12D8W	Milky White					605		40	100	
SML-D12U8W						620		25	63	
SML-D12V8W						630		16	40	

*Pulse width : 30ms.

Directivity (Typ.)

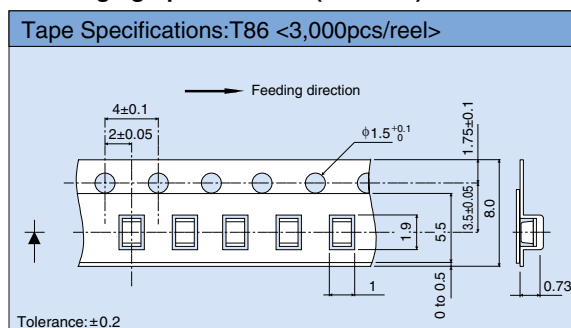


Recommended Pad Layout

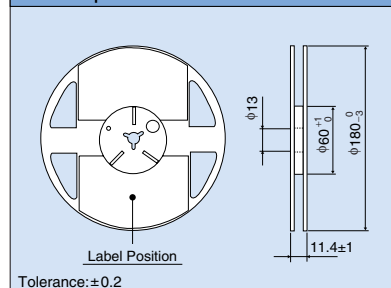


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

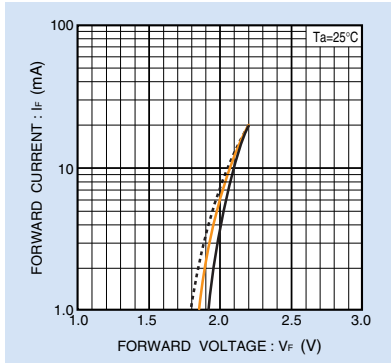


Reel Specifications



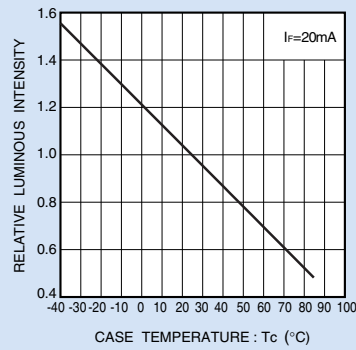
Electrical Characteristic Curves

Forward Current - Forward Voltage



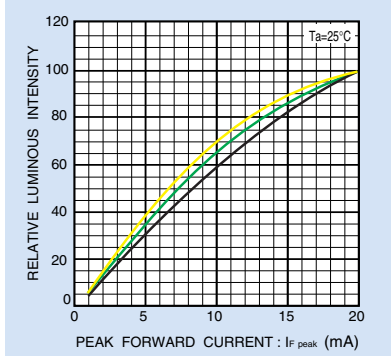
- SML-D12P8W
- SML-D12M8W
- SML-D12Y8W
- SML-D12D8W
- SML-D12V8W
- SML-D12U8W

Relative Luminous Intensity - Case Temperature



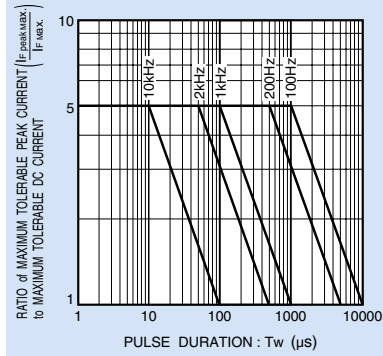
- SML-D12P8W
- SML-D12M8W
- SML-D12Y8W
- SML-D12D8W
- SML-D12V8W
- SML-D12U8W

Relative Luminous Intensity - Forward Current



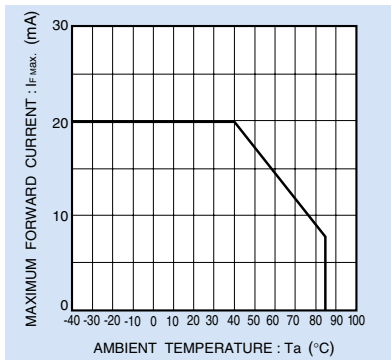
- SML-D12P8W
- SML-D12M8W
- SML-D12Y8W
- SML-D12D8W
- SML-D12V8W
- SML-D12U8W

Ratio of Maximum Tolerable Peak Current - Pulse Duration



- SML-D12P8W
- SML-D12M8W
- SML-D12Y8W
- SML-D12D8W
- SML-D12V8W
- SML-D12U8W

Derating



- SML-D12P8W
- SML-D12M8W
- SML-D12Y8W
- SML-D12D8W
- SML-D12V8W
- SML-D12U8W

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