High Brightness Type Mini-molded chip LEDs

SML-212 Series

Package Size (mm)	Yellow	Orange	Red		
		AlGaInP on GaAs			
	591nm	611nm	639nm		
2012 (0805) 2.0×1.25 t=0.8					
	SML-212YT	SML-212DT	SML-212VT		

■ Absolute Maximum Ratings (Ta=25°C)

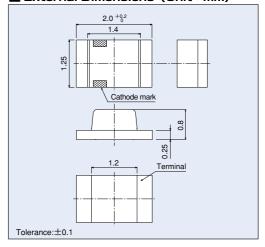
Part No.	Emitting color	Power dissipation Po (mW)	Forward current IF (mA)	Peak forward current * IFP (mA)	Reverse voltage V _R (V)	Operating temperature Topr	Stotage temperature T _{stg} (°C)
SML-212YT	Yellow						
SML-212DT	Orange	75	30	60	4	-30 to +85	-40 to +85
SML-212VT	Red						

^{*} IFP measured under duty \leq 1/5,pulse width \leq 1 ms.

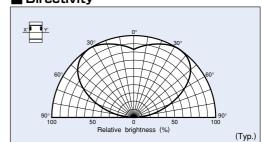
■ Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V _F		Reverse current In		Light wavelength Peak Half-wave λρ Δλ			Brightness Iv		
		Typ.	lF (mA)	Max. (μA)	VR (V)	Typ. (nm)	Typ. (nm)	lF (mA)	Min. (mcd)	Typ. (mcd)	lF (mA)
SML-212YT	Transparent Clear					591	15				
SML-212DT		2.05	20	100	4	611	17	20	22	63	20
SML-212VT						639	20				

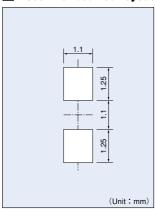
■ External Dimensions (Unit: mm)



■ Directivity

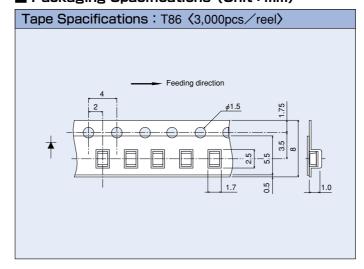


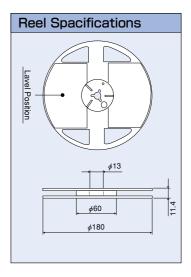
■ Recommemded Pad Layout



The recommended thickness of the screen mask for soldering is between 100 and $200\,\mu m$. The hole size of the screen mask should be same as the recommended land pattern or smaller.

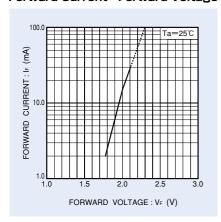
■ Packaging Spacifications (Unit:mm)





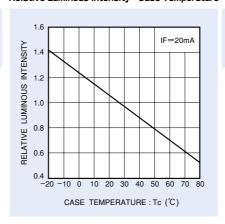
■ Electrical Characteristic Curves

Forward Current - Forward Voltage



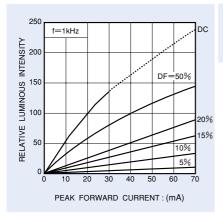
SML-212YT
SML-212DT
SML-212VT

Relative Luminous Intensity - Case Temperature



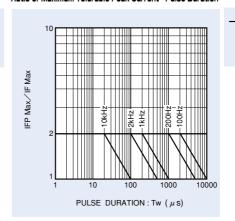
— SML-212YT
SML-212DT
SML-212VT

Relative Luminous Intensity - Forward Current



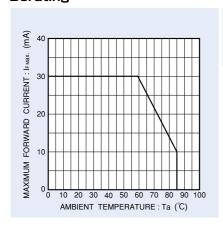
SML-212YT
SML-212DT
SML-212VT

Ratio of Maximum Tolerable Peak Current - Pulse Duration



SML-212YT
SML-212DT
SML-212VT

Derating



SML-212YT
SML-212DT
SML-212VT

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