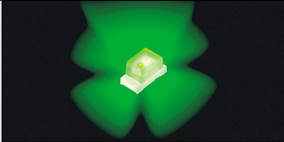
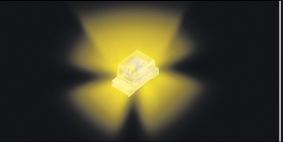
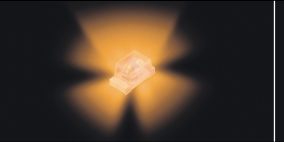
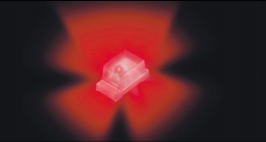


High Brightness Type Mini-molded chip LEDs

SML-51 * Series

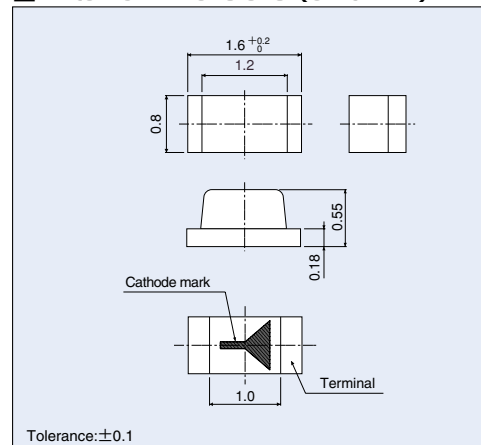
Package Size (mm)	Green	Yellow	Orange	Red
	AlGaInP on GaAs			
	570nm	590nm	611nm	630nm
1608 (0603) 1.6×0.8 t=0.55				
	SML-512MW	SML-511WW	SML-512WW	SML-511DW
				SML-512DW
				SML-511UW
				SML-512UW

Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation Pd (mW)	Forward current IF (mA)	Peak forward current I _{FP} (mA)	Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
SML-512MW	Green	65	25	100*2	5	-30 to +85	-40 to +85
SML-511WW	Yellow	62		60*1	4	-30 to +85	-40 to +85
SML-512WW	Orange	75	30	100*2	5	-40 to +100	-40 to +100
SML-511DW		62	25	60*1	4	-30 to +85	-40 to +85
SML-512DW	75	30	100*2	5	-40 to +100	-40 to +100	
SML-511UW	Red	62	25	60*1	4	-30 to +85	-40 to +85
SML-512UW		75	30	100*2	5	-40 to +100	-40 to +100

*1 I_{FP} measured under duty ≤1/5, pulse width ≤1ms.
*2 I_{FP} measured under duty 1/10, 1kHz

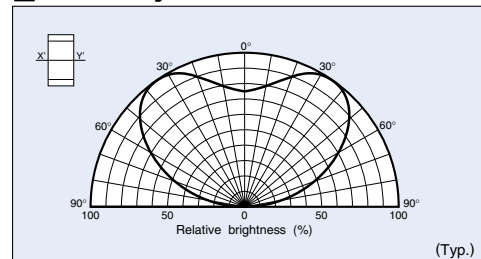
External Dimensions (Unit : mm)



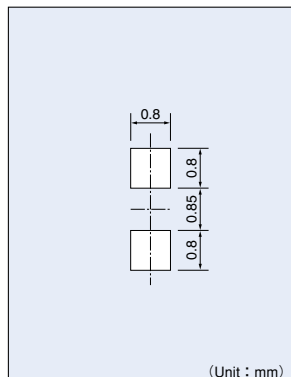
Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage VF (V)		Reverse current IR (μA)		Light wavelength λp (nm)		Half-wave Δλ (nm)		Brightness Iv (mcd)				
		Typ.	IF (mA)	Max.	VR (V)	Typ.	IF (mA)	Typ.	IF (mA)	Min.	Typ.	IF (mA)		
SML-512MW	Milky White	2.1	20	100	5	570	18	20	14	22	40	20		
SML-511WW				100	4	590	15						36	63
SML-512WW				10	5	611	16						22	63
SML-511DW	Milky White	2.0	20	100	4	611	16	20	14	22	40	20		
SML-512DW				10	5								630	18
SML-511UW	Milky White	2.0	20	100	4	630	18	20	14	22	40	20		
SML-512UW				10	5								630	18

Directivity



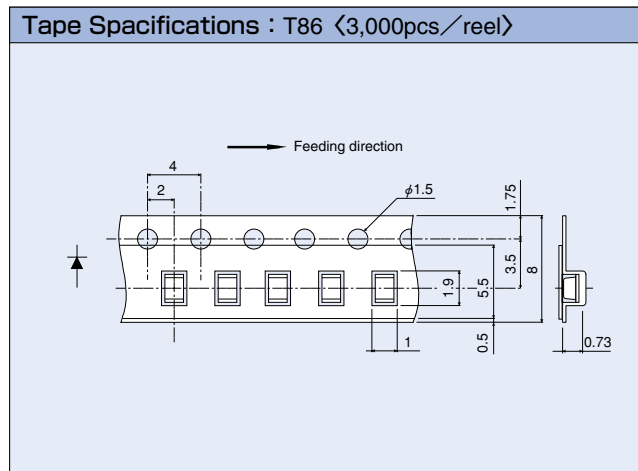
Recommended Pad Layout



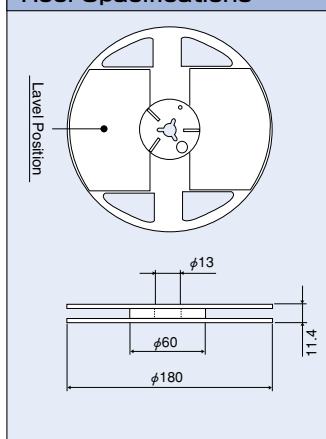
(Unit : mm)

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

Packaging Specifications (Unit : mm)

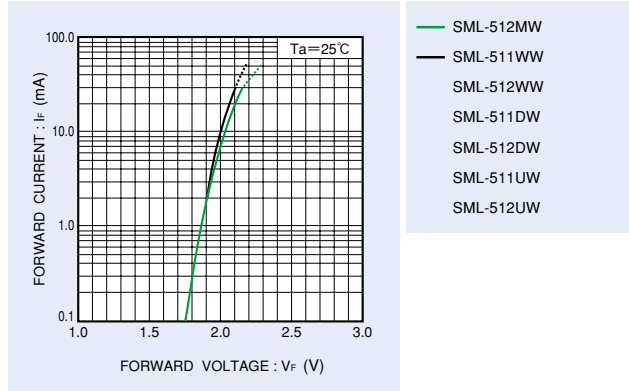


Reel Specifications

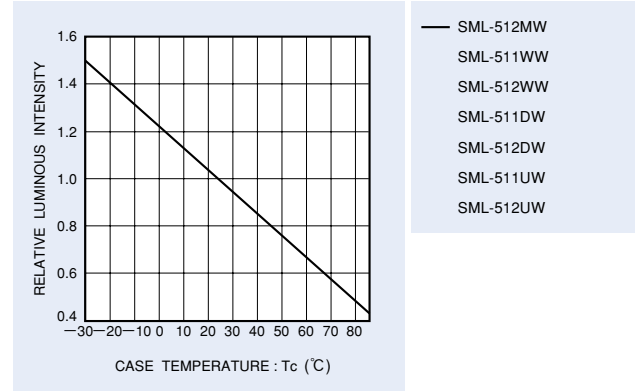


Electrical Characteristic Curves

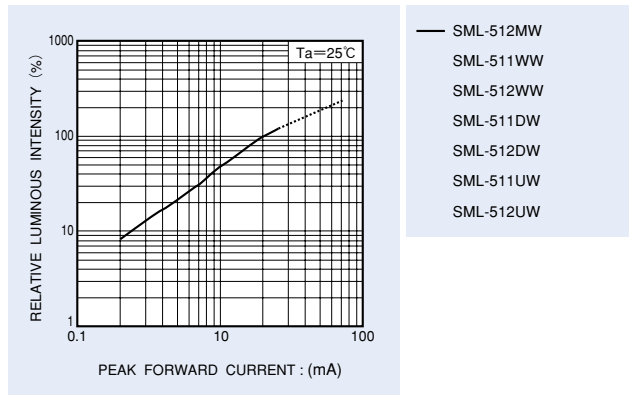
Forward Current - Forward Voltage



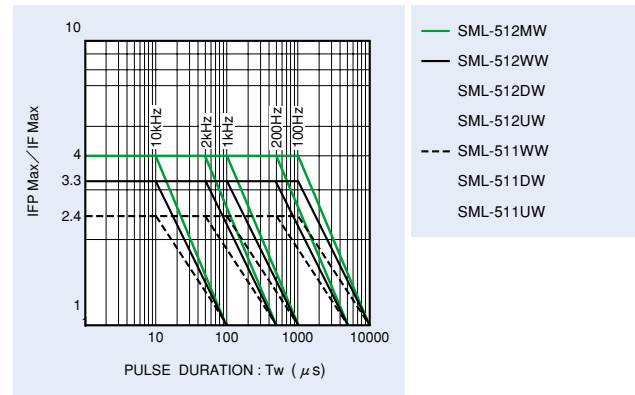
Relative Luminous Intensity - Case Temperature



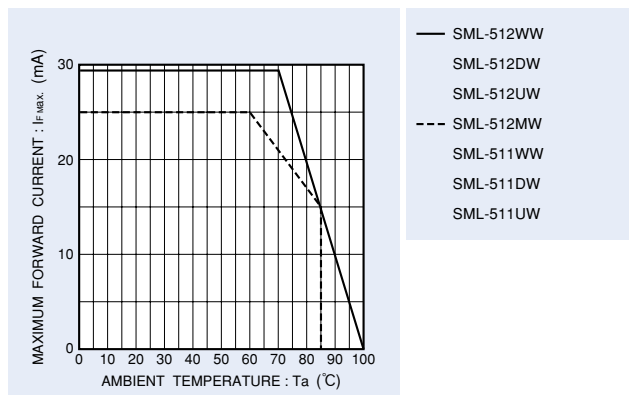
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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