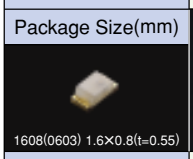
0603<1.6×0.8 t=0.55mm>
High Brightness Type

SML-51□ Series

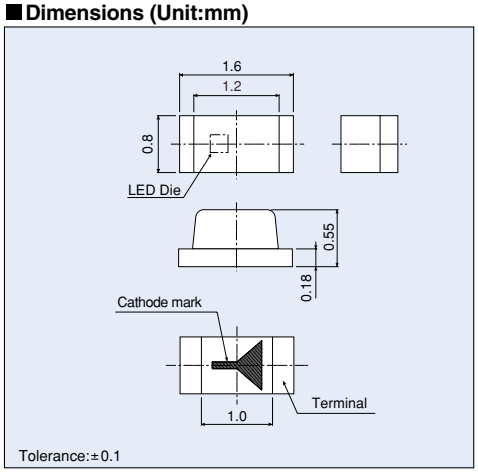
Emitting Color	Green(Yellowish Green)		Yellow		Orange			Red		
Material	AlGaInP on GaAs									
Package Size(mm)	 1608(0603) 1.6×0.8(t=0.55)									
Part No.	New SML-512PW(A)	SML-512MW	SML-511WW	SML-512WW	SML-511DW	SML-512DW	SML-512CW(A)	SML-511UW	SML-512UW	SML-512VW(A)

■ 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-512MW	Green (Yellowish 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		75	30	100※2	5	-40 to +100	-40 to +100
SML-511DW	Orange	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-512CW(A)							
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
SML-512VW(A)							
SML-512PW(A)	Green (Yellowish Green)	65	25				

※1:Duty ≦1/5, pulse width ≦1ms.
※2:Duty 1/10, 1kHz

■ Dimensions (Unit:mm)

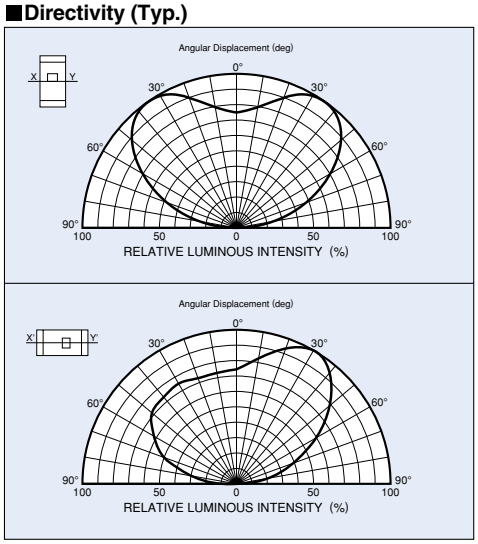


Tolerance:±0.1

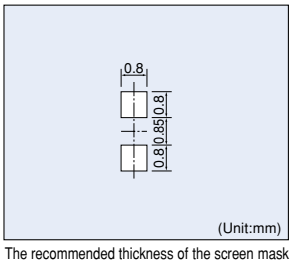
■ Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V_F Typ. (V)	V_F I_F (mA)	Reverse current I_R Max. (μA)	I_R V_R (V)	Light wavelength Peak λp Typ. (nm)	Half-wave Δλ Typ. (nm)	Δλ I_F (mA)	Brightness Iv Min. (mcd)	Iv Typ. (mcd)	Iv I_F (mA)
SML-512MW	Milky White	2.1	20	100	5	570	18	20	14	40	20
SML-511WW		2.0		100	4	590	15		22		
SML-512WW				10	5				36	63	
SML-511DW				100	4	611	16		14	40	
SML-512DW				10	5				36	100	
SML-512CW(A)									71	112	
SML-511UW				100	4	630	18		14	40	
SML-512UW				10	5				22	63	
SML-512VW(A)						639	16		35.5	56	
SML-512PW(A)		2.1		100		563	15		5.6	14	

■ Directivity (Typ.)



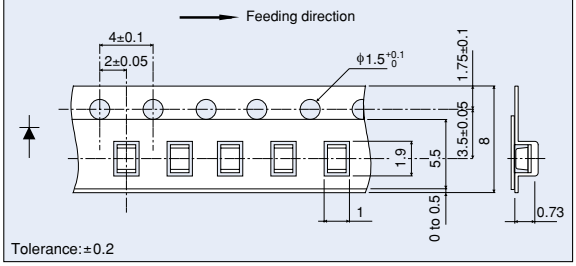
■ Recommended Pad Layout



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.

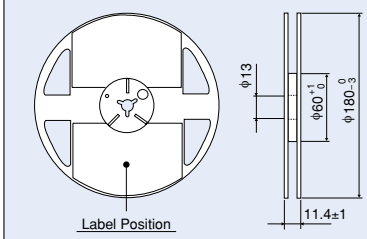
■ Packaging Specifications (Unit : mm)

Tape Specifications : T86 <3,000pcs / reel>



Tolerance:±0.2

Reel Specifications



Tolerance:±0.2

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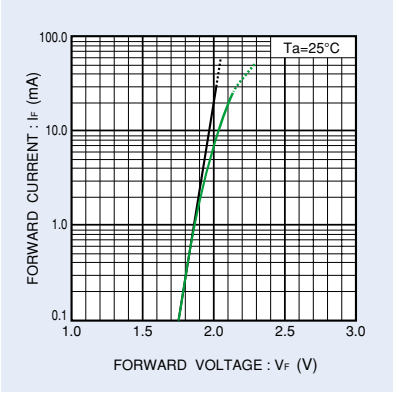
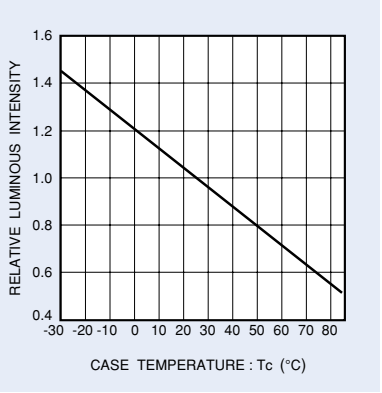
■Electrical Characteristic Curves

Forward Current - Forward Voltage



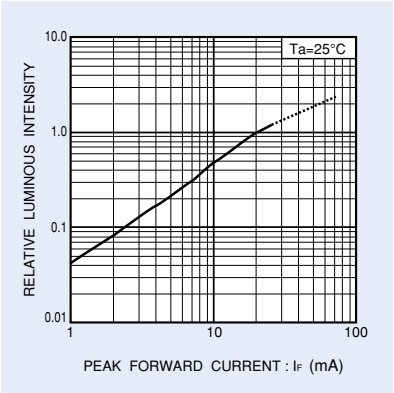
SML-512MW
SML-511WW
SML-512WW
SML-511DW
SML-512DW
SML-512CW(A)
SML-511UW
SML-512UW
SML-512VW(A)
SML-512PW(A)

Relative Luminous Intensity - Case Temperature



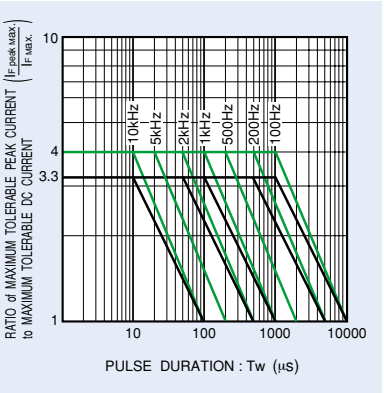
SML-512MW
SML-511WW
SML-512WW
SML-511DW
SML-512DW
SML-512CW(A)
SML-511UW
SML-512UW
SML-512VW(A)
SML-512PW(A)

Relative Luminous Intensity - Forward Current



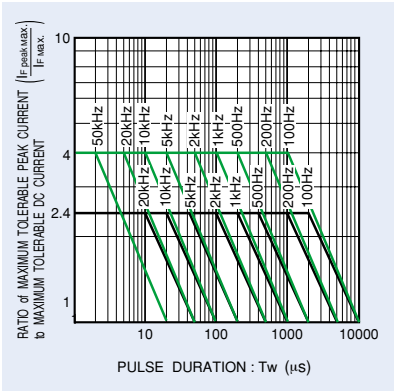
SML-512MW
SML-511WW
SML-512WW
SML-511DW
SML-512DW
SML-512CW(A)
SML-511UW
SML-512UW
SML-512VW(A)
SML-512PW(A)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



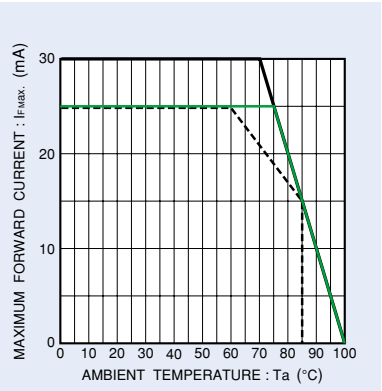
SML-512MW
SML-512WW
SML-512DW
SML-512CW(A)
SML-512UW
SML-512VW(A)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



SML-512PW(A)
SML-511WW
SML-511DW
SML-511UW

Derating



SML-512PW(A)
SML-512WW
SML-512DW
SML-512CW(A)
SML-512UW
SML-512VW(A)

SML-512MW
SML-511WW
SML-511DW
SML-511UW

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