

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

SML-51□ Series

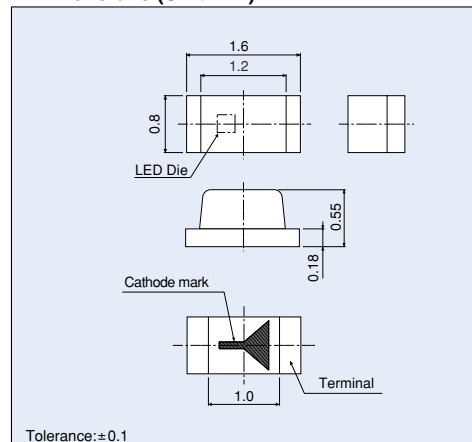
Emitting Color	Green(Yellowish Green)	Yellow	Orange	Red
Material	AlGaInP on GaAs			
Package Size(mm)				
Part No.	SML-512PW(A) <small>1608(0603) 1.6×0.8(t=0.55)</small>	SML-512MW	SML-511WW SML-512WW	SML-511DW SML-512DW SML-512CW(A) SML-511UW SML-512UW SML-512VW(A)

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	25	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)	Red	62	25	60 ^{*1}	4	-30 to +85	-40 to +85
SML-511UW		75	30	100 ^{*2}	5	-40 to +100	-40 to +100
SML-512VW(A)		65	25	100 ^{*2}	5	-40 to +100	-40 to +100

*1:Duty ≤ 1/5, pulse width ≤ 1ms.
*2:Duty 1/10, 1kHz

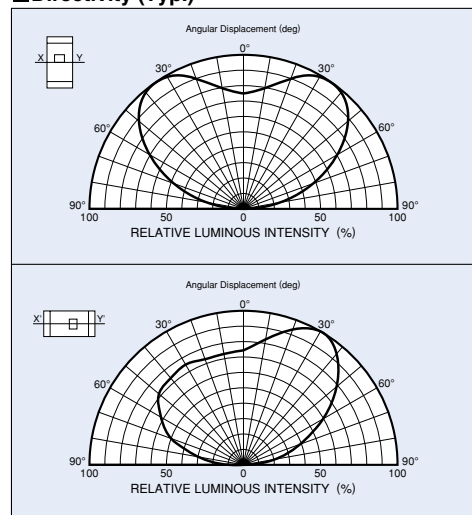
Dimensions (Unit:mm)



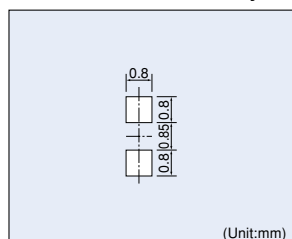
Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V _F		Reverse current I _R		Light wavelength		Brightness I _v			
		Typ. (V)	I _F (mA)	Max. (μA)	V _R (V)	Peak λ _p Typ. (nm)	Half-wave Δλ Typ. (nm)	Min. (mcd)	Typ. (mcd)	I _F (mA)	
SML-512MW	Milky White	2.1	20	100	5	570	18	20	14	40	20
SML-511WW									22	63	
SML-512WW									36	63	
SML-511DW									14	40	
SML-512DW	Milky White	2.0	20	10	5	611	16	20	36	100	20
SML-512CW(A)									71	112	
SML-511UW									14	40	
SML-512UW	Milky White	2.1	20	100	5	563	15	20	22	63	20
SML-512VW(A)									35.5	56	
SML-512PW(A)	Milky White	2.1	20	100	5	563	15	20	5.6	14	20

Directivity (Typ.)

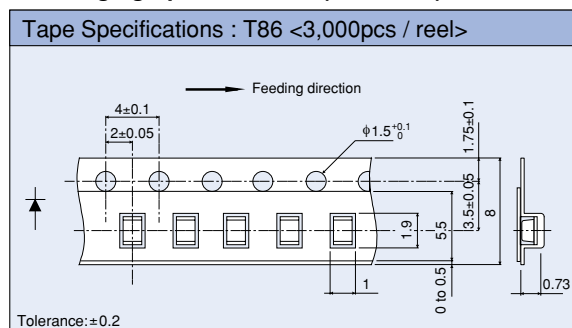


Recommended Pad Layout

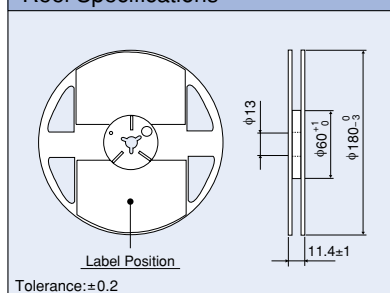


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit : mm)

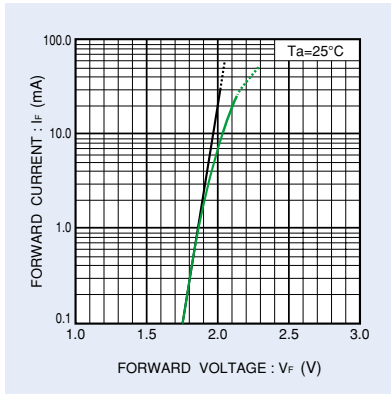


Reel Specifications



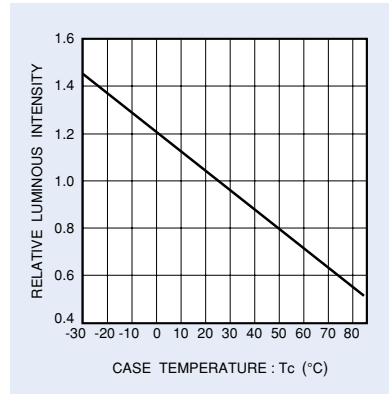
Electrical Characteristic Curves

Forward Current - Forward Voltage



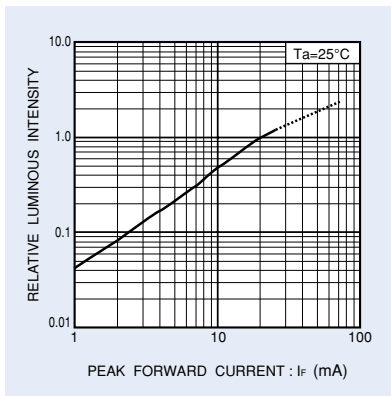
— SML-512MW
 — SML-511WW
 — SML-512WW
 — SML-511DW
 — SML-512DW
 — SML-512CW(A)
 — SML-511UW
 — SML-512UW
 — SML-512VW(A)
 — SML-512PW(A)

Relative Luminous Intensity - Case Temperature



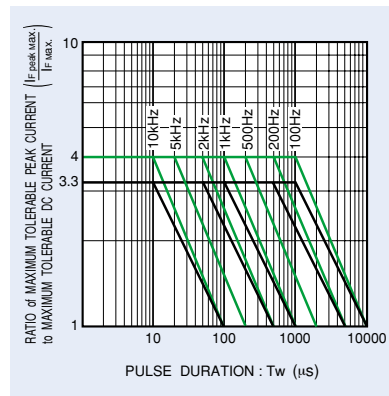
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 — SML-512DW
 — SML-512CW(A)
 — SML-511UW
 — SML-512UW
 — SML-512VW(A)
 — SML-512PW(A)

Relative Luminous Intensity - Forward Current



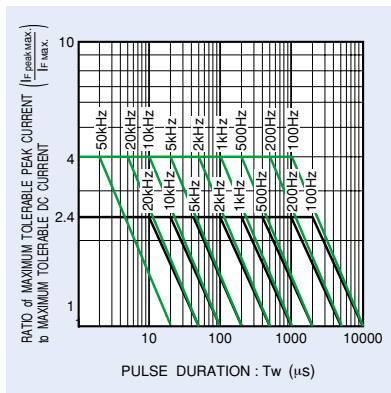
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 — SML-512UW
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 — SML-512PW(A)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



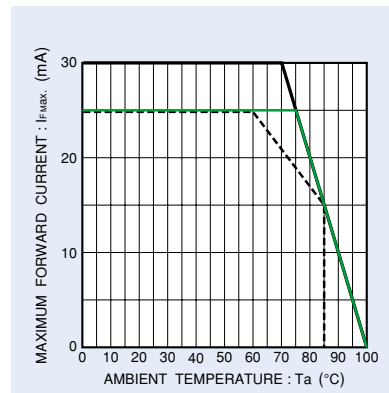
— SML-512MW
 — SML-512WW
 — SML-512DW
 — SML-512CW(A)
 — SML-512UW
 — SML-512VW(A)

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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