

SML-81 Series

3412(1305)
3.4 × 1.25mm (t=1.1mm)

Features

- Reverse-mount type

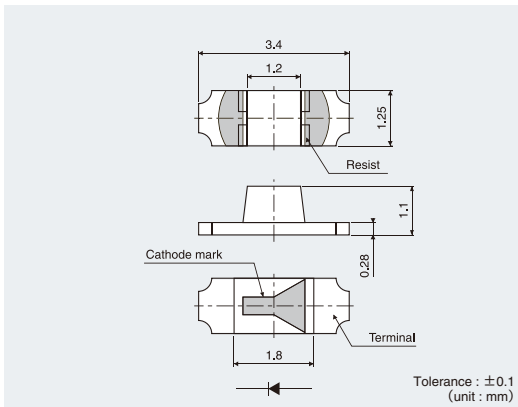
Color Type U D W M B

Specifications

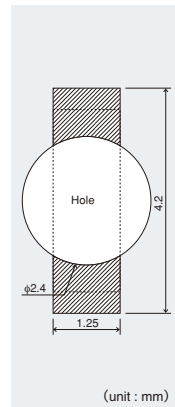
| Part No. | Chip Structure | Emitting Color | Absolute Maximum Ratings (Ta=25°C) | | | | | Electrical and Optical Characteristics (Ta=25°C) | | | | | | | | | | | |
|---|-----------------|-----------------|------------------------------------|-------------------------|---|------------------------|---------------------------------|--|------------------------|----|-------------------------|-----|-----------------------------|-----|-----|-----------------------------|------|------|----|
| | | | 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) | Forward Voltage VF (V) | | Reverse Current IR (μA) | | Dominant Wavelength λD (nm) | | | Luminous Intensity Iv (mcd) | | | |
| ■ SML-811UT(A) | AlGaInP on GaAs | Red | 62 | 25 | 100 ^{*2} | 5 | -40 to +85 | -40 to +100 | 1.95 | 10 | 5 | 100 | 615 | 620 | 625 | 10 | 11.2 | 22.4 | 10 |
| ■ SML-811DT(A) | | Orange | | | | | | | | | | | 602 | 605 | 608 | | | | |
| ■ SML-811WT(A) | | Yellow | | | | | | | | | | | 587 | 590 | 593 | | | | |
| ■ SML-812MT | GaP | Yellowish Green | 65 | 20 | 60 ^{*1} | 4 | -30 to +85 | -40 to +85 | 2.1 | 20 | 4 | 4 | 569 | 572 | 575 | 20 | 5.6 | 16 | 20 |
| ■ SML-810MT | | | | | | | | | | | | | 567 | 570 | 573 | | | | |
| ■ SML812BCT | InGaN | Blue | 80 | 20 | 100 ^{*2} | 5 | | | 3.3 | | 5 | 5 | 464 | 470 | 476 | | 22 | 56 | |

* 1: Duty1/5, 200Hz / * 2: Duty1/10, 1kHz / * 3: Reference

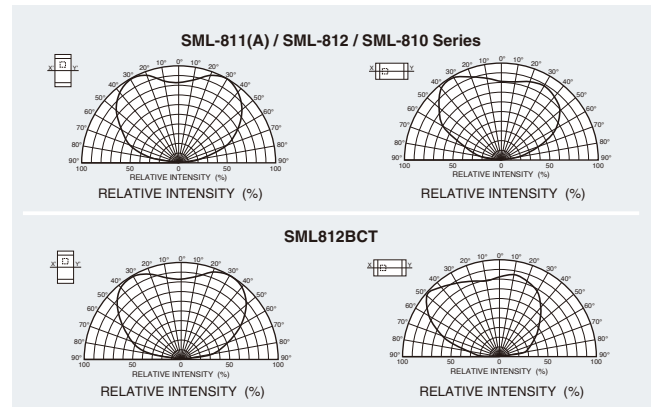
Dimensions



Recommended Solder Pattern

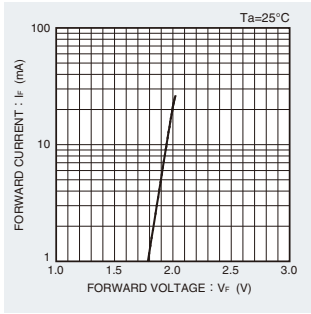


Viewing Angle

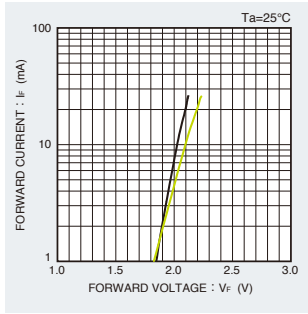


Electrical Characteristics Curves

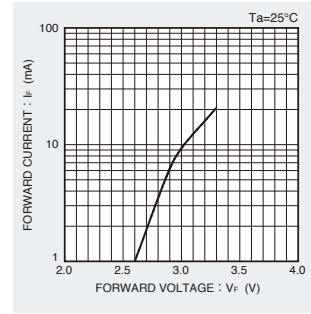
Forward Current-Forward Voltage



■ SML-811UT(A)
 ■ SML-811DT(A)
 ■ SML-811WT(A)

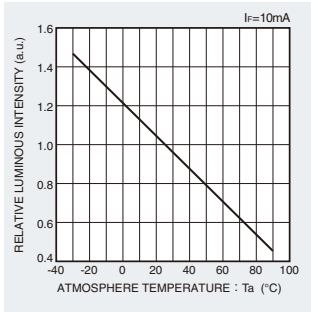


■ SML-812MT
 ■ SML-810MT

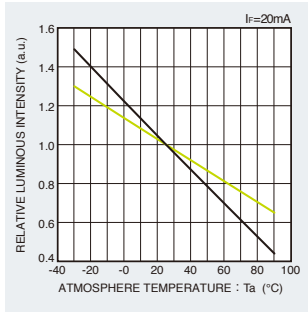


■ SML812BCT

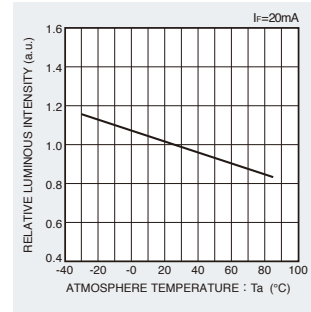
Luminous Intensity-Atmosphere Temperature



■ SML-811UT(A)
 ■ SML-811DT(A)
 ■ SML-811WT(A)

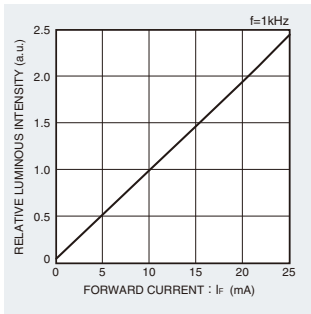


■ SML-812MT
 ■ SML-810MT

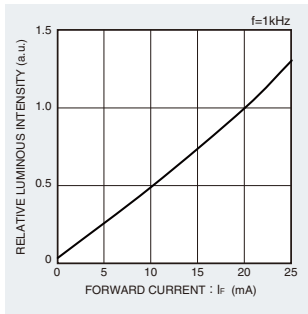


■ SML812BCT

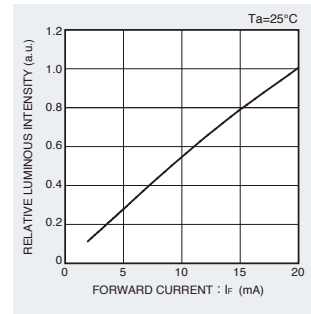
Luminous Intensity-Forward Current



■ SML-811UT(A)
 ■ SML-811DT(A)
 ■ SML-811WT(A)

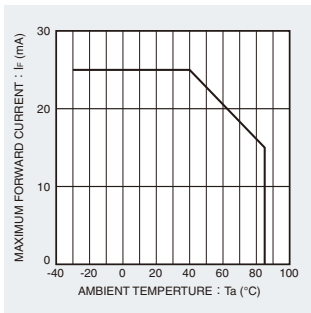


■ SML-812MT
 ■ SML-810MT

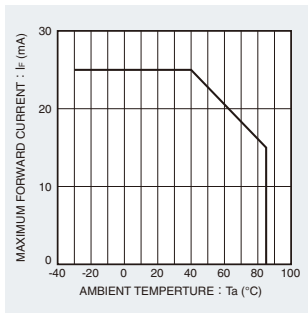


■ SML812BCT

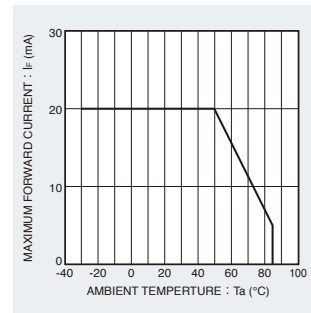
Derating



■ SML-811UT(A)
 ■ SML-811DT(A)
 ■ SML-811WT(A)



■ SML-812MT
 ■ SML-810MT



■ SML812BCT

SML-81 Series

Rank Reference of Brightness

Red (U) Orange (D) Yellow (W)

(Ta=25°C, If=20mA)

| Package size(mm) | Height(mm) | Luminous intensity (mcd) | AG | AH | AJ | AK | AL | AM | AN | AP | AQ | AR | AS | AT | AU | AV | AW | AX |
|-------------------------|------------|--------------------------|--------------|------------|----------|------------|------------|------------|------------|----------|----------|----------|-----------|------------|------------|------------|------------|------------|
| | | | 9.0 to 11.2 | 11.2 to 14 | 14 to 18 | 18 to 22.4 | 22.4 to 28 | 28 to 35.5 | 35.5 to 45 | 45 to 56 | 56 to 71 | 71 to 90 | 90 to 112 | 112 to 140 | 140 to 180 | 180 to 224 | 224 to 280 | 280 to 355 |
| Reverse Mount Chip LEDs | 34125 | 1.1 | SML-811UT(A) | | | | | | | | | | | | | | | |
| | | | SML-811DT(A) | | | | | | | | | | | | | | | |
| | | | SML-811WT(A) | | | | | | | | | | | | | | | |

* Please note that the brightness of some products may fall between ranks (half rank).

Green (M) Blue (B)

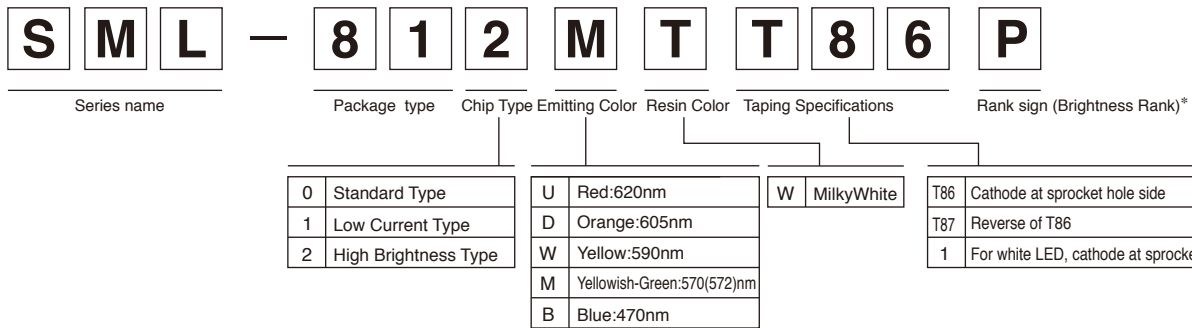
(Ta=25°C, If=20mA)

| Package size(mm) | Height(mm) | Luminous intensity (mcd) | G | H | J | K | L | M | N | P | Q | R | S | T | U | V | W | X |
|-------------------------|------------|--------------------------|------------|------------|------------|------------|-----------|----------|----------|----------|----------|-----------|------------|------------|------------|------------|-------------|--------------|
| | | | 1.0 to 1.6 | 1.6 to 2.5 | 2.5 to 4.0 | 4.0 to 6.3 | 6.3 to 10 | 10 to 16 | 16 to 25 | 25 to 40 | 40 to 63 | 63 to 100 | 100 to 160 | 160 to 250 | 250 to 400 | 400 to 630 | 630 to 1000 | 1000 to 1600 |
| Reverse Mount Chip LEDs | 34125 | 1.1 | SML-810MT* | | | | | | | | | | | | | | | |
| | | | SML-812MT* | | | | | | | | | | | | | | | |
| | | | SML812BCT | | | | | | | | | | | | | | | |

**Brightness on specification sheet include tolerance of within ±10%.

Part No. Construction

* "-" will be taken out for emitting color B series.



* Concerning the Brightness rank

- Please refer to the rank chart above for luminous intensity classification.
- Part name is individual for each rank.
- When shipped as sample, the part name will be a representative part name. General products are free of ranks. Please contact sales if rank appointment is needed.

Packing Specification

ROHM LED products are being shipped with desiccant (silica gel) concluded in moisture-proof bags. Pasting the moisture sensitive label on the outer surface of the moisture-proof bags or enclosing the humidity indication card inside the bag is available upon request. Please contact the nearest sales office or distributor if necessary.

Notes

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