

Side View Chip LEDs 0605<1.6 × 1.15 t=0.55mm> Standard Type

SML-A12*8 Series

Side View

EXCELED™

| | | | | | | |
|------------------|-----------------|------------------------|------------|------------|------------|------------|
| Emitting Color | Pure Green | Green(Yellowish Green) | Yellow | Orange | Red | |
| Material | AlGaInP on GaAs | | | | | |
| Package Size(mm) | | | | | | |
| Part No. | SML-A12P8T | SML-A12M8T | SML-A12Y8T | SML-A12D8T | SML-A12U8T | SML-A12V8T |

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 T _{opr} (°C) | Storage temperature T _{stg} (°C) |
|------------|-------------------------|---------------------------|-------------------------|---|------------------------|---|---|
| SML-A12P8T | Pure Green | 54 | 20 | 100 | 5 | -40 to +85 | -40 to +100 |
| SML-A12M8T | Green (Yellowish Green) | | | | | | |
| SML-A12Y8T | Yellow | 54 | 20 | 100 | 5 | -40 to +85 | -40 to +100 |
| SML-A12D8T | Orange | | | | | | |
| SML-A12U8T | Red | 54 | 20 | 100 | 5 | -40 to +85 | -40 to +100 |
| SML-A12V8T | | | | | | | |

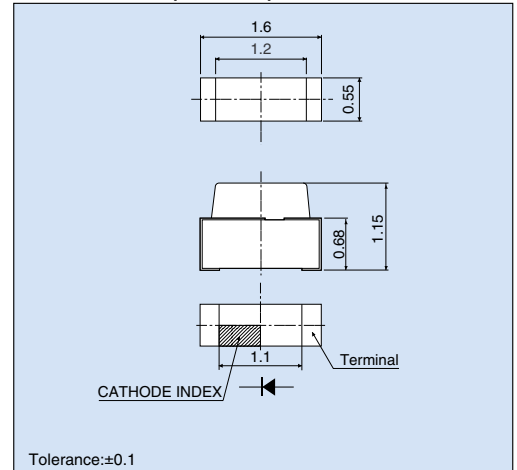
*:Duty ≤ 1/10, 1kHz.

Electrical Optical Characteristics (Ta=25°C)

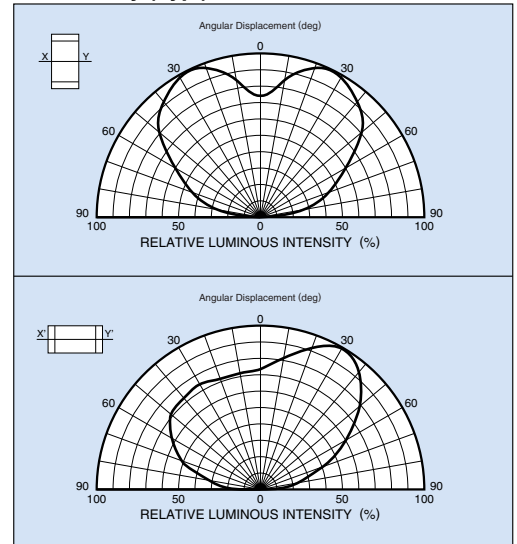
| Part No. | Resin Color | Forward voltage VF | | Reverse current IR | | Light wavelength | | Brightness Iv | | |
|------------|-----------------------|--------------------|----------|--------------------|--------|-----------------------|----------|---------------|------------|----------|
| | | Typ. (V) | IF* (mA) | Max. (μA) | VR (V) | Dominant λD Typ. (nm) | IF* (mA) | Min. (mcd) | Typ. (mcd) | IF* (mA) |
| SML-A12P8T | Transparent Colorless | 2.2 | 20 | 10 | 5 | 560 | 20 | 2.5 | 6.3 | 20 |
| SML-A12M8T | | | | | | 572 | | 10 | 25 | |
| SML-A12Y8T | | | | | | 590 | | 25 | 63 | |
| SML-A12D8T | | | | | | 605 | | 40 | 100 | |
| SML-A12U8T | | | | | | 620 | | 25 | 63 | |
| SML-A12V8T | | | | | | 630 | | 16 | 40 | |

*Pulse width : 30ms

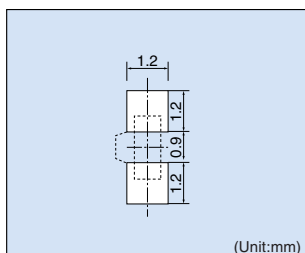
Dimensions (Unit:mm)



Directivity (Typ.)

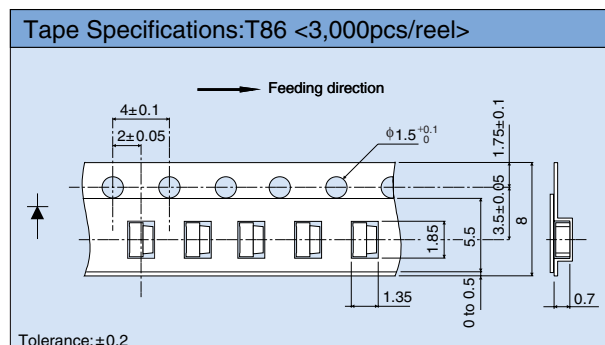


Recommended Pad Layout

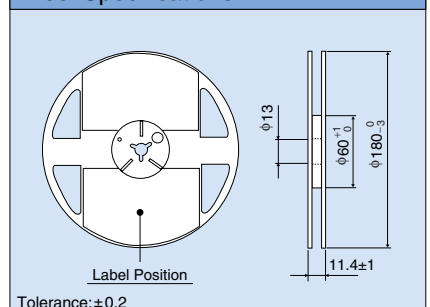


The recommended thickness of the screen mask for soldering is more than 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

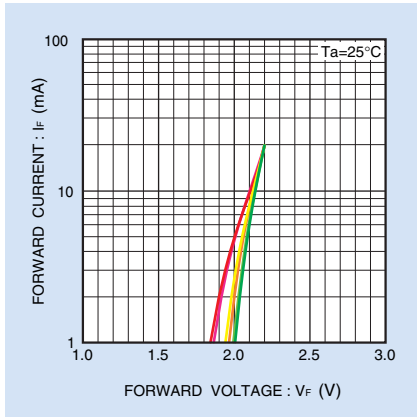


Reel Specifications



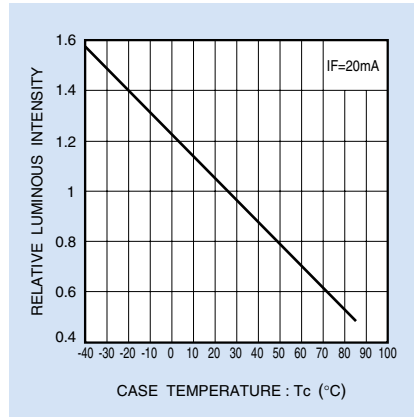
Electrical Characteristic Curves

Forward Current - Forward Voltage



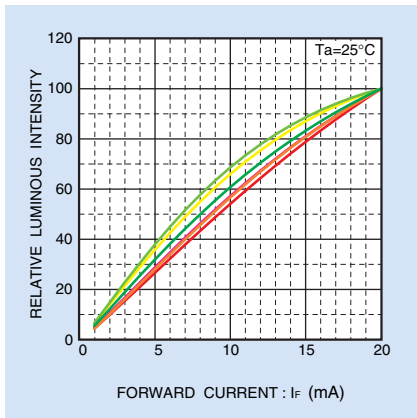
- SML-A12P8T
- SML-A12M8T
- SML-A12Y8T
- SML-A12D8T
- SML-A12U8T
- SML-A12V8T

Relative Luminous Intensity - Case Temperature



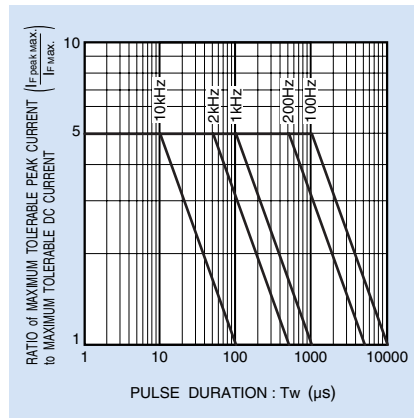
- SML-A12P8T
- SML-A12M8T
- SML-A12Y8T
- SML-A12D8T
- SML-A12U8T
- SML-A12V8T

Relative Luminous Intensity - Forward Current



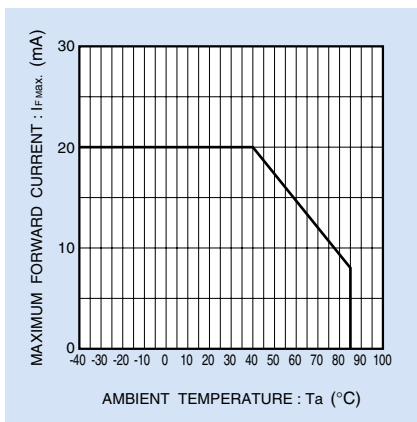
- SML-A12P8T
- SML-A12M8T
- SML-A12Y8T
- SML-A12D8T
- SML-A12U8T
- SML-A12V8T

Ratio of Maximum Tolerable Peak Current - Pulse Duration



- SML-A12P8T
- SML-A12M8T
- SML-A12Y8T
- SML-A12D8T
- SML-A12U8T
- SML-A12V8T

Derating



- SML-A12P8T
- SML-A12M8T
- SML-A12Y8T
- SML-A12D8T
- SML-A12U8T
- SML-A12V8T

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