

Reverse Mount Chip LEDs 1305 <3.4×1.25 t=1.1mm> High Brightness Type

SML-812 Series



| | | |
|------------------|---|---|
| Emitting Color | Blue | Green(Yellowish Green) |
| Material | InGaN on SiC | AlGaInP on GaAs |
| Package Size(mm) |  |  |
| Part No. | New SML-812BCT | SML-812MT |

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-812BCT | Blue | 80 | 20 | 100*1 | 5 | -30 to +85 | -40 to +85 |
| SML-812MT | Green (Yellowish Green) | 65 | 25 | 60*2 | 4 | -30 to +85 | -40 to +85 |

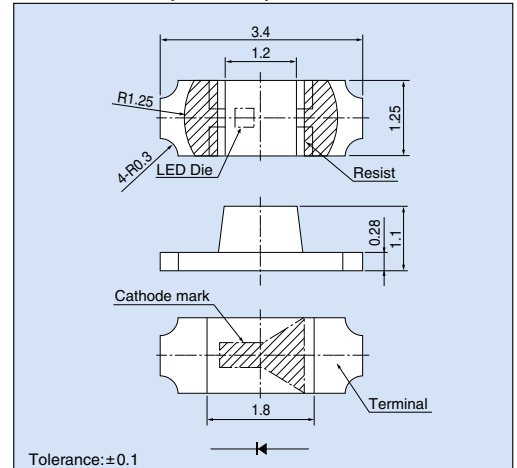
*1:Duty ≤ 1/10, 1kHz.

*2:Duty ≤ 1/5, pulse width ≤ 1ms.

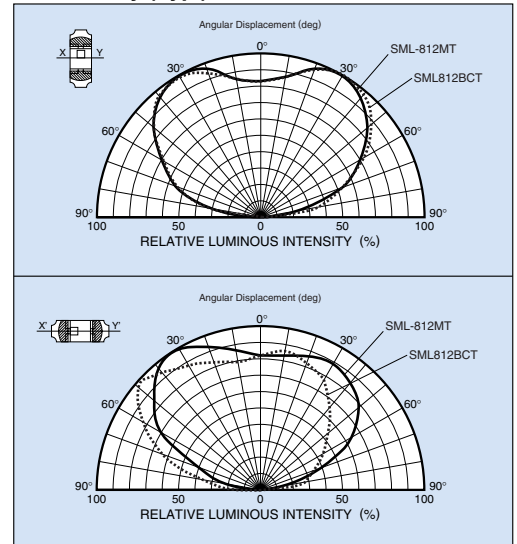
Electrical Optical Characteristics (Ta=25°C)

| 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 (nm) | Half-wave Δλ (nm) | I _F (mA) | Min. (mcd) | Typ. (mcd) | I _F (mA) |
| SML-812BCT | Transparent | 3.3 | 20 | 100 | 5 | 468 | 26 | 20 | 22 | 56 | 20 |
| SML-812MT | Colorless | 2.1 | 20 | 100 | 4 | 570 | 18 | 20 | 14 | 40 | 20 |

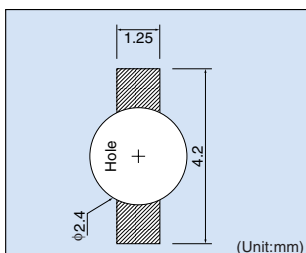
Dimensions (Unit:mm)



Directivity (Typ.)

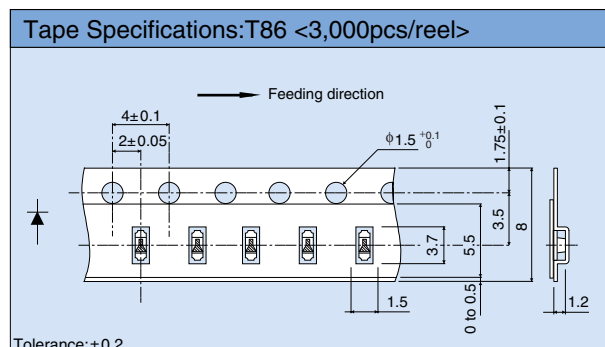


Recommended Pad Layout



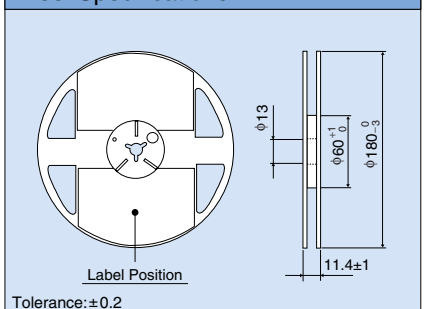
The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)



Tolerance: ±0.2

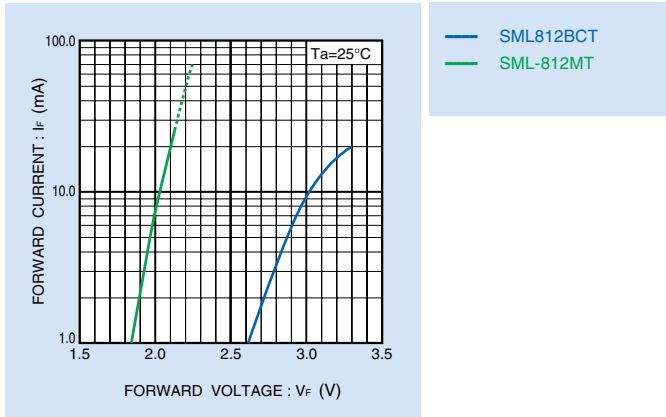
Reel Specifications



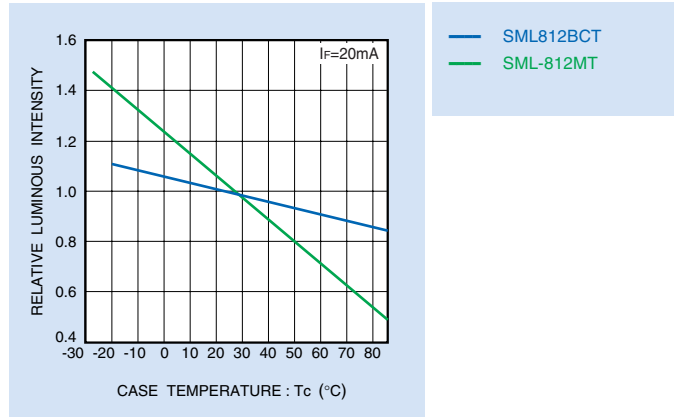
Tolerance: ±0.2

Electrical Characteristic Curves

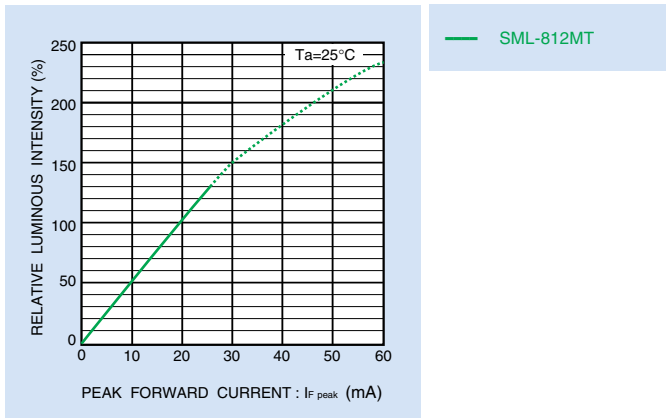
Forward Current - Forward Voltage



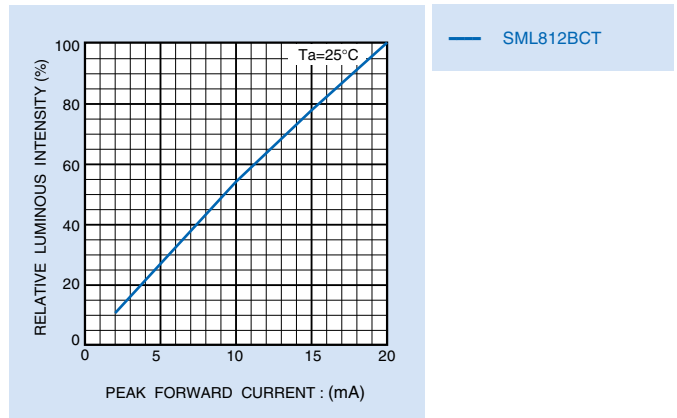
Relative Luminous Intensity - Case Temperature



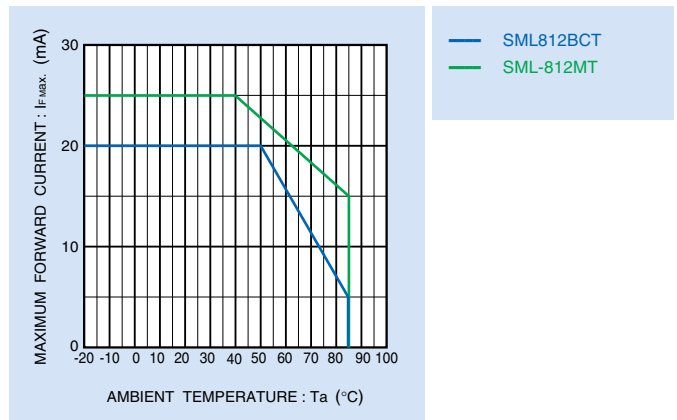
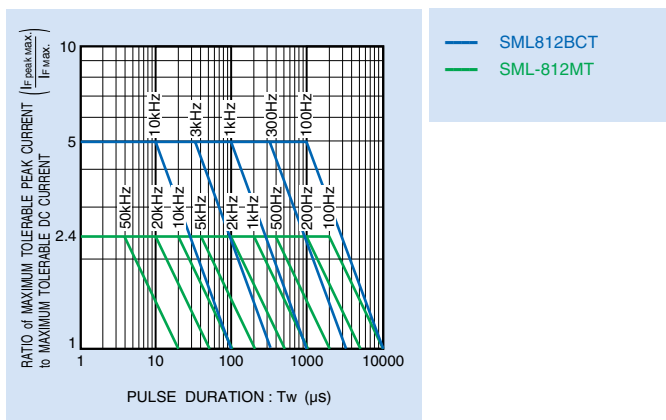
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



Notes

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