







Chip LEDs with Reflector 1208<3.0×2.0 t=1.3mm> Standard Type

SML-010 Series

| Emitting Color | Blue | Pure Green | Green(Yellowish Green) | Yellow | Orange | Red | | |
|------------------|---|---|---|---|--|---|----------------|--|
| Material | GaN on SiC | GaP | | | GaAsP on GaP | | GaAlAs on GaAs | |
| Package Size(mm) |  |  |  |  |  |  | | |
| | 3020(1208) 3.0×2.0(t=1.3) | | | | | | | |
| Part No. | SML010BAT | SML-010PT | SML-010MT | SML-010YT | SML-010DT | SML-010VT | SML-010LT | |

(note) "-" will be taken out for emitting color B/E series.

Absolute Maximum Ratings (Ta=25°C)

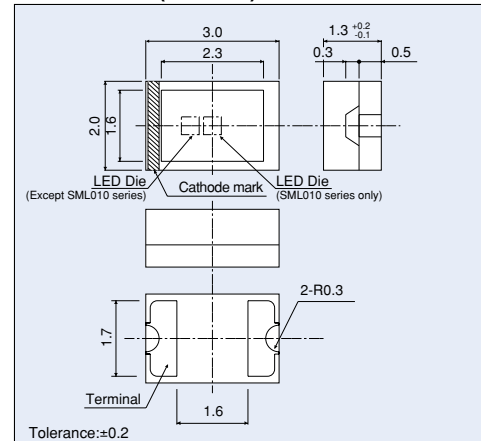
| Part No. | Emitting color | Power dissipation Pd (mW) | Forward current IF (mA) | Peak forward current *IFP (mA) | Reverse voltage VR (V) | Operating temperature Topr (°C) | Storage temperature Tstg (°C) |
|-----------|-------------------------|---------------------------|-------------------------|--------------------------------|------------------------|---------------------------------|-------------------------------|
| SML010BAT | Blue | 94 | 20 | 70 | 5 | | -40 to +100 |
| SML-010PT | Pure Green | | | | | | |
| SML-010MT | Green (Yellowish Green) | | | | | | |
| SML-010YT | Yellow | 70 | 25 | 60 | 4 | -30 to +85 | -40 to +85 |
| SML-010DT | Orange | | | | | | |
| SML-010VT | Red | | | | | | |
| SML-010LT | Red | 75 | 30 | 75 | | | |

*:Duty ≤ 1/5, pulse width ≤ 1ms.

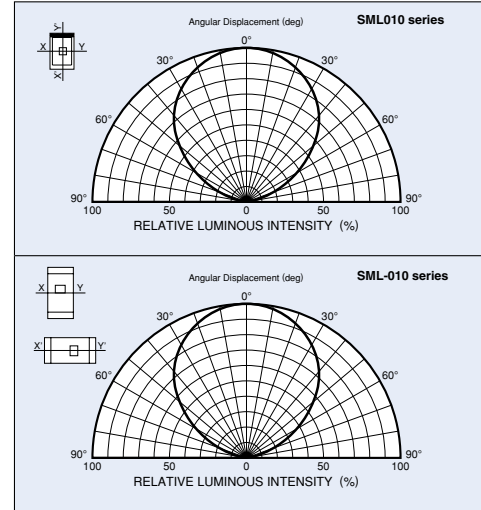
Electrical Optical Characteristics (Ta=25°C)

| Part No. | Resin Color | Forward voltage VF | | Reverse current IR | | Light wavelength | | Brightness Iv | | | |
|-----------|-----------------------|--------------------|---------|--------------------|--------|------------------|-------------------|---------------|------------|------------|---------|
| | | Typ. (V) | IF (mA) | Max. (μA) | VR (V) | Peak λp (nm) | Half-wave Δλ (nm) | IF (mA) | Min. (mcd) | Typ. (mcd) | IF (mA) |
| SML010BAT | Transparent Colorless | 3.8 | | | 5 | 428 | 65 | | 3.6 | 9 | |
| SML-010PT | | 2.2 | | | | 555 | | | 2.2 | 6.3 | |
| SML-010MT | | 2.2 | | | | 570 | | | 5.6 | 25 | |
| SML-010YT | | 2.1 | 20 | 100 | 4 | 585 | 40 | 20 | 2.2 | 6.3 | 20 |
| SML-010DT | | 2.0 | | | | 610 | | | 3.6 | 10 | |
| SML-010VT | | 2.0 | | | | 650 | | | 2.2 | 6.3 | |
| SML-010LT | | 1.75 | | | | | 660 | 25 | 5.6 | 16 | |

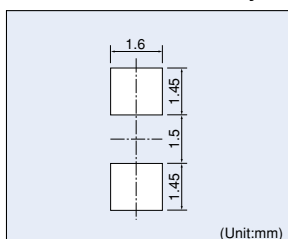
Dimensions (Unit:mm)



Directivity (Typ.)

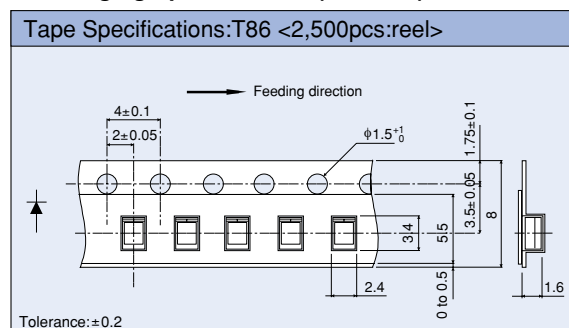


Recommended Pad Layout

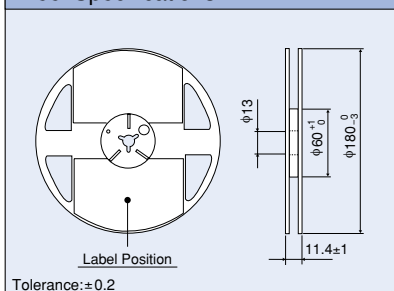


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

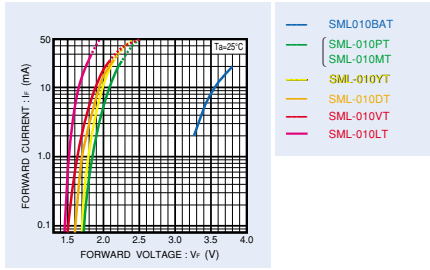


Reel Specifications

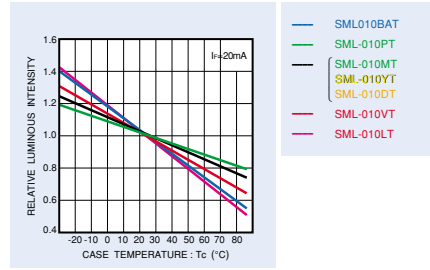


Electrical Characteristic Curves

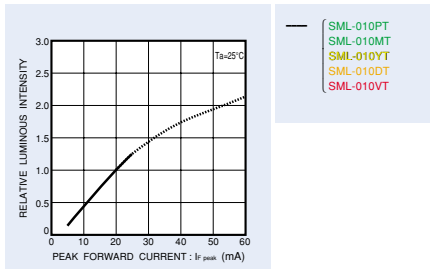
Forward Current - Forward Voltage



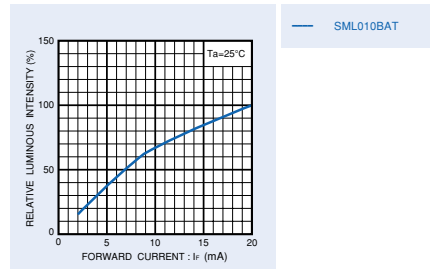
Relative Luminous Intensity - Case Temperature



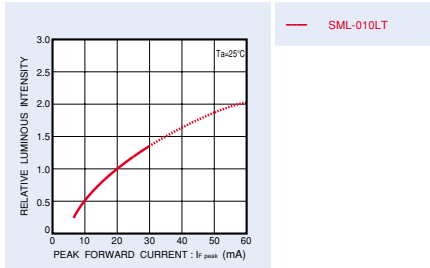
Relative Luminous Intensity - Forward Current



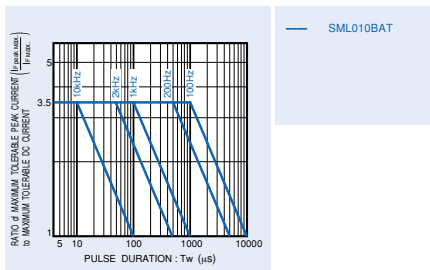
Relative Luminous Intensity - Forward Current



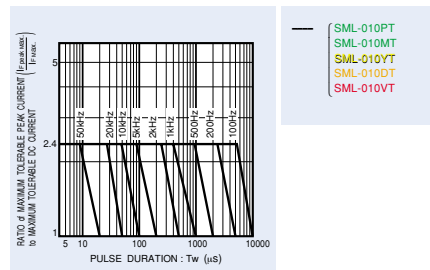
Relative Luminous Intensity - Forward Current



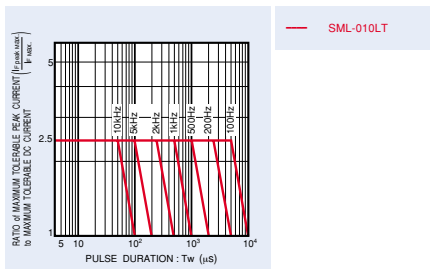
Ratio of Maximum Tolerable Peak Current - Pulse Duration



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating

