

Dual-Color 0605 <1.5×1.3 t=0.6mm> Standard Type

SML-521 Series

| Emitting Color | Part No. | Green(Yellowish Green) | Yellow | Orange | Red |
|-------------------------------|-----------------------|------------------------|--------|--------|-----------------|
| Material | | | GaP | | AlGaInP on GaAs |
| Package Size(mm) | SML-521MYW | ○ | ○ | — | — |
| 1513(0605) 1.5×1.3(t=0.6) | SML-521MDW | ○ | — | ○ | — |
| | SML-521MUW | ○ | — | — | ○ |
| | New SML-522MUW | ○ *1 | — | — | ○ |

*1:AlGaInP on GaAs

Absolute Maximum Ratings (Ta=25°C)

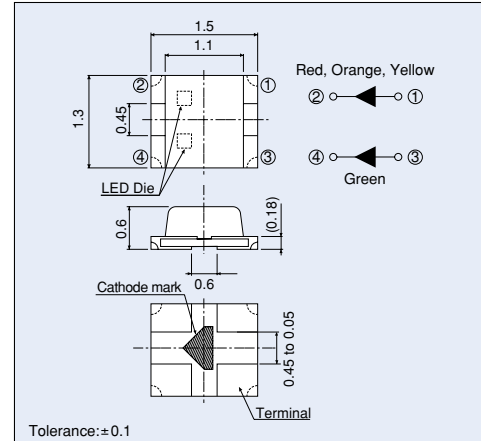
| Part No. | Emitting color | Power dissipation Pd (mW) | Forward current IF (mA) | Peak forward current *IFP (mA) | Reverse voltage VR (V) | Operating temperature Topr (°C) | Storage temperature Tstg (°C) |
|------------|-------------------------|---------------------------|-------------------------|--------------------------------|------------------------|---------------------------------|-------------------------------|
| SML-521MYW | Green (Yellowish Green) | 70 | 25 | 60 | 4 | -30 to +85 | -40 to +85 |
| | Yellow | 50 | 20 | | | | |
| SML-521MDW | Green (Yellowish Green) | 70 | 25 | | | | |
| | Orange | 50 | 20 | | | | |
| SML-521MUW | Green (Yellowish Green) | 70 | 25 | | | | |
| | Red | 50 | 20 | | | | |
| SML-522MUW | Green (Yellowish Green) | 52 | 20 | | | | |
| | Red | 50 | | | | | |

*:Duty ≤ 1/5, pulse width ≤ 1ms.

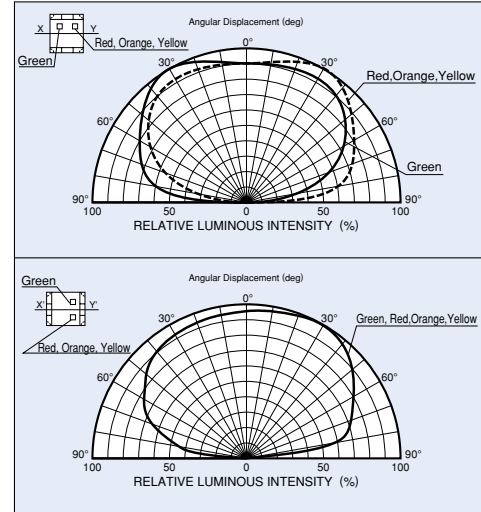
Electrical Optical Characteristics (Ta=25°C)

| 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) |
| SML-521MYW | | 2.2 | | | | 570 | 40 | | 5.6 | 16 | |
| | | 1.9 | | | | 590 | 15 | | 22 | 63 | |
| SML-521MDW | | 2.2 | | | | 570 | 40 | | 5.6 | 16 | |
| | | 1.9 | | | | 611 | 16 | | 22 | 63 | |
| SML-521MUW | Milky White | 2.2 | 20 | 100 | 4 | 570 | 40 | 20 | 5.6 | 16 | 20 |
| | | 1.9 | | | | 630 | 15 | | 22 | 63 | |
| SML-522MUW | | 2.1 | | | | 570 | 18 | | 14 | 40 | |
| | | 1.9 | | | | 630 | 15 | | 22 | 63 | |

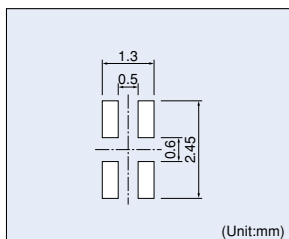
Dimensions (Unit:mm)



Directivity (Typ.)

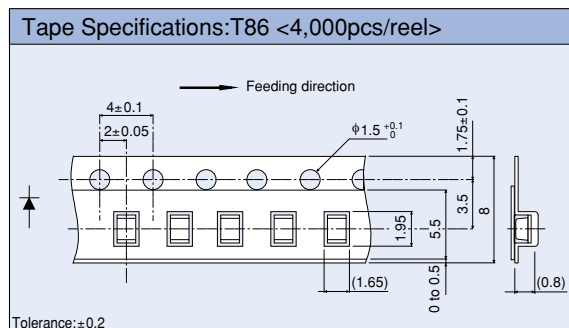


Recommended Pad Layout

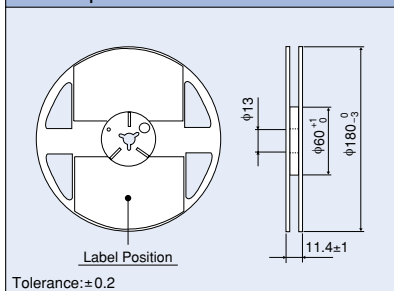


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

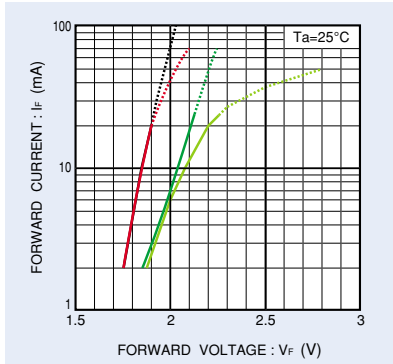


Reel Specifications



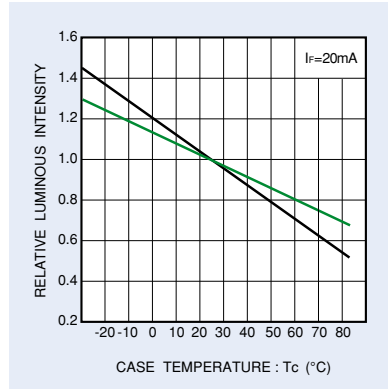
Electrical Characteristic Curves

Forward Current - Forward Voltage



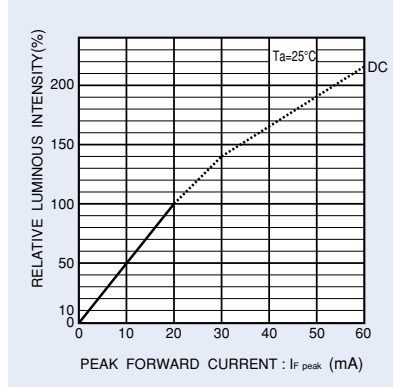
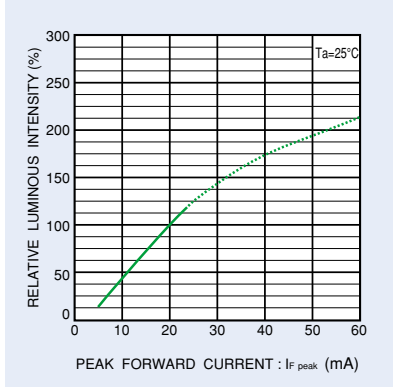
- SML-521MYW <Green>
- SML-521MDW <Green>
- SML-521MUW <Green>
- SML-522MUW <Green>
- SML-521MYW <Yellow>
- SML-521MDW <Orange>
- SML-521MUW <Red>
- SML-522MUW <Red>

Relative Luminous Intensity - Case Temperature



- SML-521MYW <Green>
- SML-521MDW <Green>
- SML-521MUW <Green>
- SML-521MYW <Yellow>
- SML-521MDW <Orange>
- SML-521MUW <Red>
- SML-522MUW <Green>
- SML-522MUW <Red>

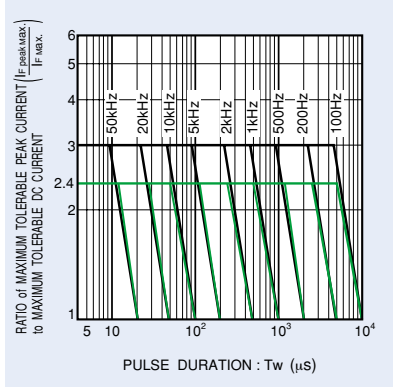
Relative Luminous Intensity - Forward Current



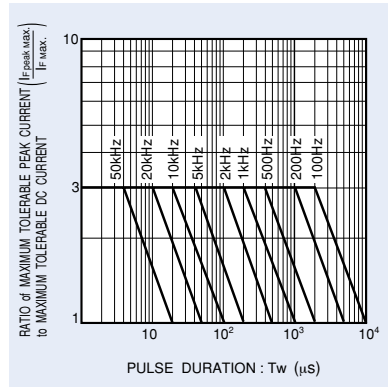
- SML-521MYW <Green>
- SML-521MDW <Green>
- SML-521MUW <Green>

- SML-521MYW <Yellow>
- SML-521MDW <Orange>
- SML-521MUW <Red>
- SML-522MUW <Green>
- SML-522MUW <Red>

Ratio of Maximum Tolerable Peak Current - Pulse Duration

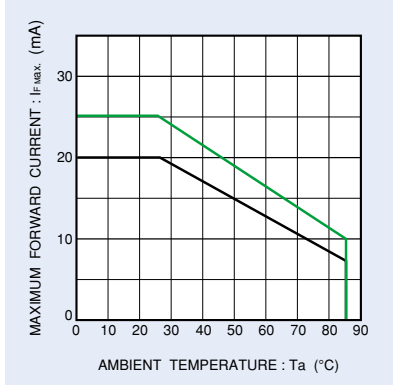


- SML-521MYW <Green>
- SML-521MDW <Green>
- SML-521MUW <Green>
- SML-521MYW <Yellow>
- SML-521MDW <Orange>
- SML-521MUW <Red>



- SML-522MUW <Green>
- SML-522MUW <Red>

Derating



- SML-521MYW <Green>
- SML-521MDW <Green>
- SML-521MUW <Green>
- SML-521MYW <Yellow>
- SML-521MDW <Orange>
- SML-521MUW <Red>
- SML-522MUW <Green>
- SML-522MUW <Red>

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