# **Tri-Color** Top View 0404 <1.0×1.0 t=0.2mm> High Brightness Type



### SMLP34 Series (under development)

## Target Spec.

| Emitting Color            | Part No.    | Blue Green |                 | Red |  |
|---------------------------|-------------|------------|-----------------|-----|--|
| Material                  | Fait No.    | InGaN      | AlGaInP on GaAs |     |  |
| Package Size(mm)          |             |            |                 |     |  |
| 1010(0404) 1.0×1.0(t=0.2) | SMLP34RGB1W | 0          | 0               | 0   |  |

#### Absolute Maximum Ratings (Ta=25°C)

| Part No.    | Emitting<br>color | Power<br>dissipation<br>Po<br>(mW) | Forward<br>current<br>IF <sup>*1</sup><br>(mA) | Peak<br>forward<br>current<br>IFP*2<br>(mA) | Reverse<br>voltage<br>VR<br>(V) | Operating<br>temperature<br>T <sub>opr</sub><br>(°C) | Storage<br>temperature<br>Tstg<br>(°C) |
|-------------|-------------------|------------------------------------|--|---|---------------------------------|--|--|
|             | Blue              |                                    |  |   |                                 |  |  |
| SMLP34RGB1W | Green             | 64                                 | 20   | 100   | 5                               | -30 to +85   | -40 to +100                            |
|             | Red               |                                    |  |   |                                 |  |  |

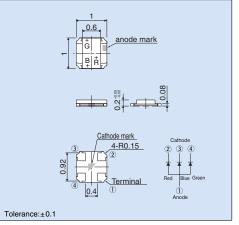
\*1:The above absolute maximum ratings are valid for the case of lighting a single color. When lighting two colors at the same time, each of the figures in the absolute maximum ratings should be reduced down to 50% of it. When lighting three colors, it will be reduced down to 30% of it. (DC drive)  $\pm$ 2:Conditions of IFP : Pulse width  $\leq$  1ms Duty  $\leq$  1/120

#### Electrical Optical Characteristics (Ta=25°C)

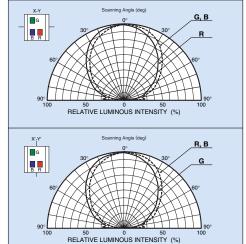
| Part No.    | Resin Color | Forward<br>voltage<br>V⊧ |            | Reverse<br>current<br>IR |           | Light wavelength Dominant $\lambda D^{*3}$ |            | Brightness<br>Iv |               |            |
|-------------|-------------|--------------------------|------------|--------------------------|-----------|--|------------|------------------|---------------|------------|
|             |             | Typ.<br>(V)              | l⊧<br>(mA) | Max.<br>(µA)             | Vr<br>(V) | Typ.<br>(nm)                               | lF<br>(mA) | Min.<br>(mcd)    | Typ.<br>(mcd) | l⊧<br>(mA) |
|             |             | 3.0<br>(3.2)             |            |                          |           | 470  |            | 9.0<br>(28)      | 18<br>(50)    |            |
| SMLP34RGB1W | Milky White | 3.1<br>(3.3)             | 5<br>(20)  | 100                      | 5         | 527  | 5          | 36<br>(110)      | 71<br>(200)   | 5<br>(20)  |
|             |             | 1.9<br>(2.2)             |            |                          |           | 624  |            | 14<br>(56)       | 28<br>(100)   |            |

\*3:Measurement tolerance : ±2nm

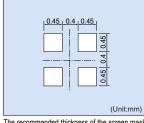
#### Dimensions (Unit:mm)



#### Directivity (Typ.)

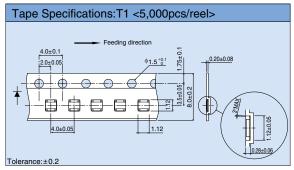


#### Recommended Pad Layout



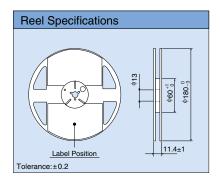
The recommended thickness of the screen mask for soldering is between 80 and 130 $\mu\text{m}.$  The hole size of the screen mask should be same as the recommended land pattern or smaller.

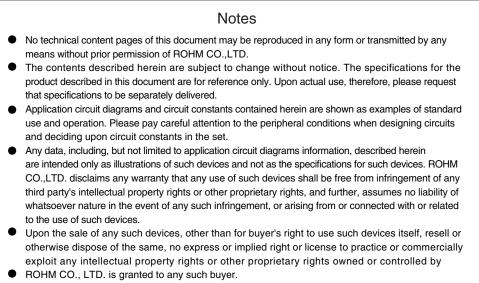
#### Packaging Specifications (Unit:mm)



) : reference

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• Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

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Appendix1-Rev2.0