## SML-811 Series <br> Rearerse

| Emitting Color | Yellow | Orange | Red |
| :---: | :---: | :---: | :---: |
| Material |  | AIGalnP on GaAs |  |
| Package Size(mm) |  |  |  |
|  |  |  |  |
| Part No. |  |  |  |
| SM12(1305) $3.4 \times 1.25(\mathrm{t}=1.1)$ |  |  |  |

■Absolute Maximum Ratings ( $\mathrm{Ta=25}$ 」C)

| Part No. | Emitting color | Power dissipation Po (mW) | Forward current $I_{F}$ (mA) | Peak forward current * Ifp (mA) | Reverse voltage $V_{R}$ (V) | Operating temperature Topr <br> (C) | Storage temperature Tstg (C) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SML-811WT(A) | Yellow |  |  |  |  |  |  |
| SML-811DT(A) | Orange | 62 | 25 | 100 | 5 | -40 to +85 | -40 to +100 |
| SML-811UT(A) | Red |  |  |  |  |  |  |

*: Duty $\leqq 1 / 10$, pulse width $\leqq 0.1 \mathrm{~ms}$.

## Electrical Optical Characteristics ( $\mathrm{Ta}=25 \mathrm{C}$ C)

| Part No. | Resin Color | Forward voltage $V_{F}$ |  | Reverse current lR |  | Light wavelength <br> Peak Half-wave |  |  | Brightness |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Typ. <br> (V) | $\begin{gathered} \text { IF } * \\ (\mathrm{~mA}) \end{gathered}$ | Max. <br> ( $\mu \mathrm{A})$ | $\begin{aligned} & \mathrm{V}_{\mathrm{R}} \\ & (\mathrm{~V}) \end{aligned}$ | Typ. (nm) | Typ. (nm) | $\begin{gathered} \mathrm{IF} * \\ (\mathrm{~mA}) \end{gathered}$ | Min. (mcd) | Typ. (mcd) | $\begin{gathered} \mathrm{IF} * \\ (\mathrm{~mA}) \end{gathered}$ |
| SML-811WT(A) | Transparent Colorless | 1.95 | 10 | 100 | 5 | 590 | 15 | 10 | 14 | 28 |  |
| SML-811DT(A) |  |  |  |  |  | 611 | 16 |  | 11.2 | 22.4 | 10 |
| SML-811UT(A) |  |  |  |  |  | 630 | 18 |  |  |  |  |

■imensions (Unit:mm)


■ Directivity (Typ.)


## ■Recommended Pad Layout


(Unit:mm)
The recommended thickness of the screen mask for soldering is between 100 and $150 \mu \mathrm{~m}$. The hole size of the screen mask should be same as the recommended land pattern or smaller.

■ Packaging Specifications (Unit:mm)


## Electrical Characteristic Curves

## Forward Current - Forward Voltage



Relative Luminous Intensity - Case Temperature

$=\left(\begin{array}{l}\text { SMIL-811WTV(A) } \\ \text { SML-811DT(A) } \\ \text { SML-811UT(A) }\end{array}\right.$

## Relative Luminous Intensity - Forward Current



- $\quad$ SMLL-811 WTT(A) SML-811DT(A)
SML-811UT(A)


## Ratio of Maximum Tolerable Peak Current - Pulse Duration



- $\quad$ SMIL-811 WVT(A) SML-811DT(A)
SML-811UT(A)


## Derating



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