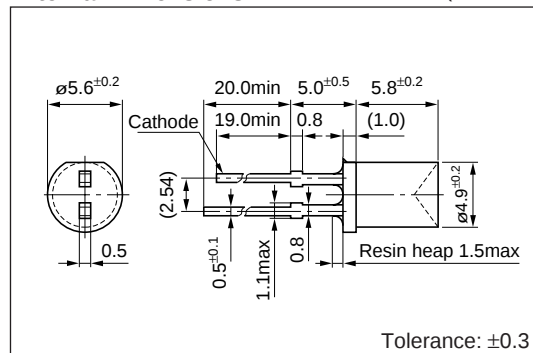


# 5 $\phi$ Inverted-cone LED for surface illumination

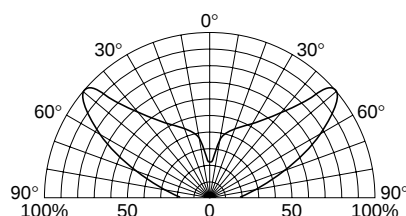
## SEL1013 Series

### External Dimensions

(Unit: mm)



### Directivity (Typical)



### Absolute maximum ratings (Ta=25°C)

| Symbol       | Unit  | Rating     | Condition                   |
|--------------|-------|------------|-----------------------------|
| $I_F$        | mA    | 30         |                             |
| $\Delta I_F$ | mA/°C | -0.45      | Above 25°C                  |
| $I_{FP}$     | mA    | 100        | f=1kHz, $t_w \leq 100\mu s$ |
| $V_R$        | V     | 3          |                             |
| Top          | °C    | -30 to 85  |                             |
| Tstg         | °C    | -30 to 100 |                             |

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

| Emitting color | Part Number | Lens color               | Forward voltage       |                        |                | Reverse current       |                | Intensity              |                        | Peak wavelength |                        | Spectrum half width |     | Chip material |
|----------------|-------------|--------------------------|-----------------------|------------------------|----------------|-----------------------|----------------|------------------------|------------------------|-----------------|------------------------|---------------------|-----|---------------|
|                |             |                          | V <sub>F</sub><br>(V) | Condition              | I <sub>R</sub> | Condition             | I <sub>V</sub> | Condition              | λ <sub>P</sub>         | Condition       | Δλ                     | Condition           |     |               |
|                |             |                          |                       | I <sub>F</sub><br>(mA) | (μA)           | V <sub>R</sub><br>(V) | (mcd)          | I <sub>F</sub><br>(mA) | I <sub>F</sub><br>(mA) | (nm)            | I <sub>F</sub><br>(mA) |                     |     |               |
|                |             |                          |                       |                        | typ            |                       |                |                        |                        |                 |                        | max                 | typ |               |
| Red            | SEL1213C    | Clear                    | 1.9                   | 2.5                    | 10             | 50                    | 3              | 7.0                    | 20                     | 630             | 10                     | 35                  | 10  | GaAsP         |
| Amber          | SEL1813A    | Transparent orange       | 1.9                   | 2.5                    | 10             | 50                    | 3              | 8.0                    | 20                     | 610             | 10                     | 35                  | 10  |               |
| Orange         | SEL1913K    | Transparent light orange | 1.9                   | 2.5                    | 10             | 50                    | 3              | 8.0                    | 20                     | 587             | 10                     | 33                  | 10  |               |
| Yellow         | SEL1713K    | Transparent yellow       | 2.0                   | 2.5                    | 10             | 50                    | 3              | 15                     | 20                     | 570             | 10                     | 30                  | 10  | GaP           |
| Green          | SEL1413E    | Transparent green        | 2.0                   | 2.5                    | 10             | 50                    | 3              | 12                     | 20                     | 560             | 10                     | 20                  | 10  |               |
| Pure green     | SEL1513E    | Transparent light green  | 2.0                   | 2.5                    | 10             | 50                    | 3              | 5.0                    | 20                     | 555             | 10                     | 20                  | 10  |               |