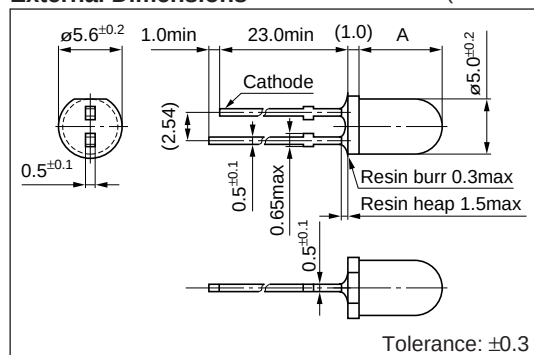


# 5 $\phi$ Round Infrared LED

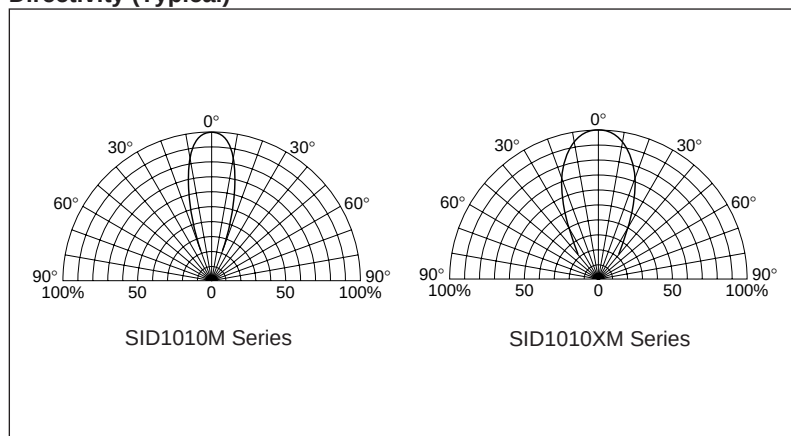
## SID1010M Series

### External Dimensions

(Unit: mm)



### Directivity (Typical)



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

| Symbol       | Unit  | Rating      | Condition                  |
|--------------|-------|-------------|----------------------------|
| $I_F$        | mA    | 150         |                            |
| $\Delta I_F$ | mA/°C | -1.33       | Above 25°C                 |
| $I_{FP}$     | mA    | 1000        | f=1kHz, $t_w \leq 10\mu s$ |
| $V_R$        | V     | 5           |                            |
| Top          | °C    | -30 to +85  |                            |
| Tstg         | °C    | -30 to +100 |                            |

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

| Part Number | Lens color | Forward voltage |     |                          | Reverse current |                          | Optical Power  |                                                     | Peak wavelength |                          | Spectrum half width |                          | Chip material | Dimension A (mm) |
|-------------|------------|-----------------|-----|--------------------------|-----------------|--------------------------|----------------|-----------------------------------------------------|-----------------|--------------------------|---------------------|--------------------------|---------------|------------------|
|             |            | V <sub>F</sub>  |     | Condition I <sub>F</sub> | I <sub>R</sub>  | Condition V <sub>R</sub> | I <sub>e</sub> |                                                     | λP              | Condition I <sub>F</sub> | Δλ                  | Condition I <sub>F</sub> |               |                  |
|             |            | (V)             |     |                          | (μA)            |                          | (mW/sr)        |                                                     | (nm)            |                          | (nm)                |                          |               |                  |
|             |            | typ             | max | max                      | (V)             | typ                      | Condition      | typ                                                 | (mA)            | typ                      | (mA)                |                          |               |                  |
| SID1010CM   | Clear      | 1.3             | 1.5 | 50                       | 10              | 5                        | 130            | (Constant voltage)<br>V <sub>CC</sub> =3V<br>R=2.2Ω | 940             | 50                       | 50                  | 50                       | GaAs          | 7.6 ±0.2         |
| SID1K10CM   | Clear      | 1.3             | 1.5 | 50                       | 10              | 5                        | 200            |                                                     | 940             | 50                       | 50                  | 50                       |               |                  |
| SID1010CXM  | Clear      | 1.3             | 1.5 | 50                       | 10              | 5                        | 60             |                                                     | 940             | 50                       | 50                  | 50                       |               | 6.9 ±0.2         |
| SID1K10CXM  | Clear      | 1.3             | 1.5 | 50                       | 10              | 5                        | 110            |                                                     | 940             | 50                       | 50                  | 50                       |               |                  |