

# Infrared Light Emitting Diodes (SIR · SIM)

Versions include card remote control (SIR-320ST3) for custom application.

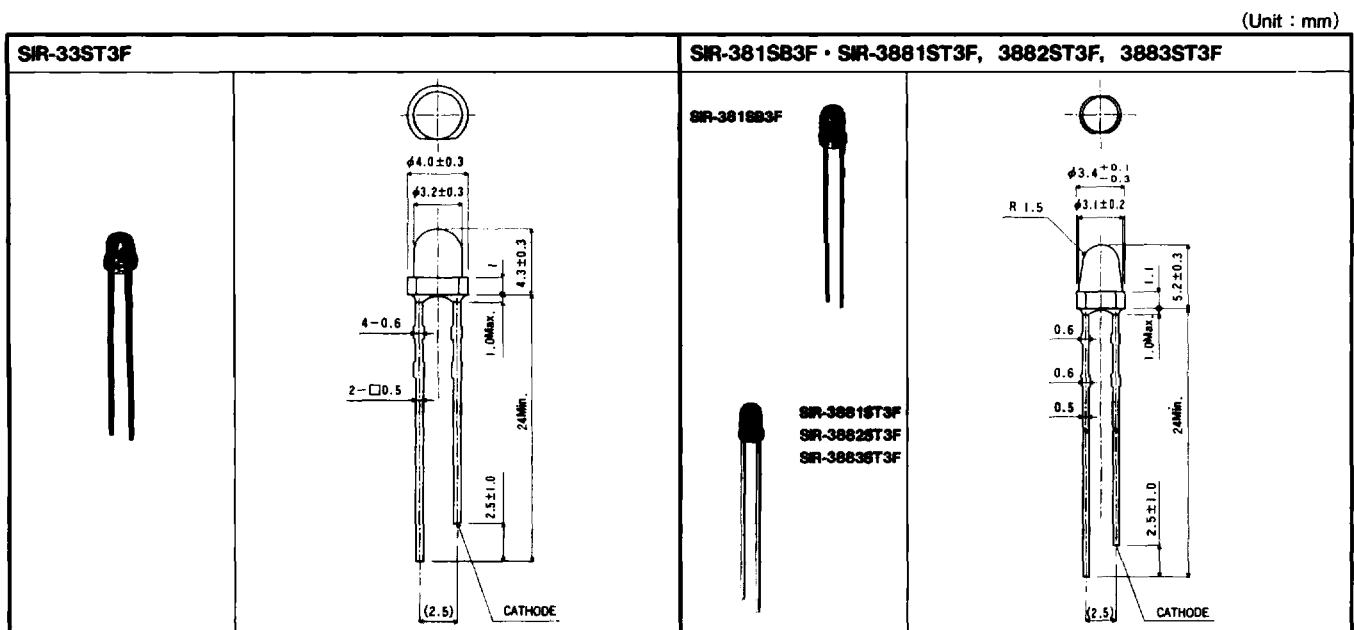
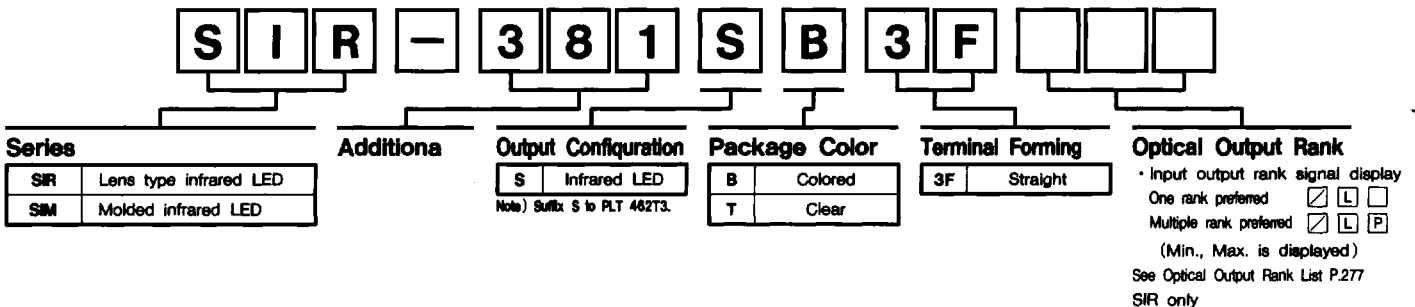
| Package         | Part No.     | Feature                               | Absolute maximum ratings | Standard Characteristics |            |           |            |                  |                        |                      | Basic ordering unit | Rank |
|-----------------|--------------|---------------------------------------|--------------------------|--------------------------|------------|-----------|------------|------------------|------------------------|----------------------|---------------------|------|
|                 |              |                                       | $I_F$ (mA)               | $P_o$ (mW)               | $I_F$ (mA) | $V_F$ (V) | $I_F$ (mA) | $\lambda_p$ (nm) | $t_r, t_f$ ( $\mu s$ ) | $\theta_{1/2}$ (deg) |                     |      |
| 3 $\phi$ Resin  | SIR-33ST3F   | Small yet high output power           | 50                       | 8                        | 50         | 1.4       | 50         | 950              | 1                      | 28                   | 2,000               | ○    |
|                 | SIR-381SB3F  | Small yet high output power           | 100                      | 8                        | 50         | 1.4       | 50         | 950              | 1                      | 20                   | 2,000               | ○    |
|                 | SIR-3881ST3F | High-speed optical communications LED | 100                      | 12                       | 50         | 1.7       | 50         | 850              | $f_c=25\text{MHz}$     | 18                   | 2,000               | ○    |
|                 | SIR-3882ST3F | High-speed optical communications LED | 100                      | 8                        | 50         | 1.5       | 50         | 850              | $f_c=50\text{MHz}$     | 18                   | 2,000               | ○    |
| 5 $\phi$ Resin  | SIR-3883ST3F | High-speed optical communications LED | 100                      | 16                       | 50         | 1.7       | 50         | 850              | $f_c=12\text{MHz}$     | 18                   | 2,000               | ○    |
|                 | SIR-481ST3F  | Best suitable for remote controller   | 100                      | 9                        | 50         | 1.4       | 100        | 940              | 1                      | 25                   | 1,000               | ○    |
|                 | SIR-482ST3F  | Best suitable for remote controller   | 100                      | 10                       | 50         | 1.3       | 100        | 940              | 1                      | 25                   | 1,000               | ○    |
|                 | SIR-56SB3F   | Best suitable for remote controller   | 100                      | 8                        | 50         | 1.38      | 100        | 950              | 1                      | 23                   | 1,000               | ○    |
|                 | SIR-563SB3F  | High power remote controller          | 100                      | 11                       | 50         | 1.34      | 50         | 940              | 1                      | 23                   | 1,000               | ○    |
|                 | SIR-567ST3F  | GaAlAs high output type               | 75                       | 10                       | 50         | 1.6       | 50         | 880              | 0.5                    | 16                   | 1,000               | ○    |
|                 | SIR-5681ST3F | High-speed optical communications LED | 100                      | 12                       | 50         | 1.7       | 50         | 850              | $f_c=25\text{MHz}$     | 15                   | 1,000               | ○    |
|                 | SIR-5682ST3F | High-speed optical communications LED | 100                      | 8                        | 50         | 1.5       | 50         | 850              | $f_c=50\text{MHz}$     | 15                   | 1,000               | ○    |
|                 | SIR-5683ST3F | High-speed optical communications LED | 100                      | 16                       | 50         | 1.7       | 50         | 850              | $f_c=12\text{MHz}$     | 15                   | 1,000               | ○    |
|                 | SIM-20SB     | Mold type general purpose             | 50                       | 6.5                      | 50         | 1.25      | 50         | 950              | 1                      | 15                   | 2,000               | ○    |
| Side view resin | SIM-22ST     | Mold type general purpose             | 50                       | 0.48Min.                 | 10         | 1.25      | 50         | 950              | 1                      | 30                   | 2,000               | ○    |

○ : Standard products

\* : Cutoff frequency

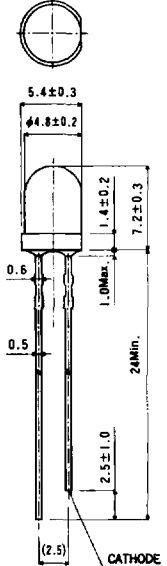
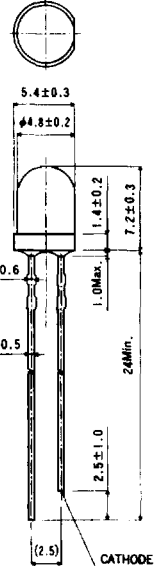
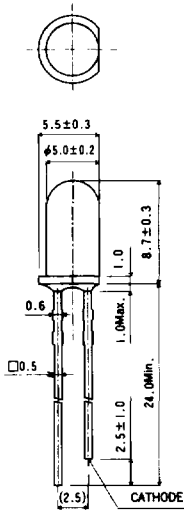
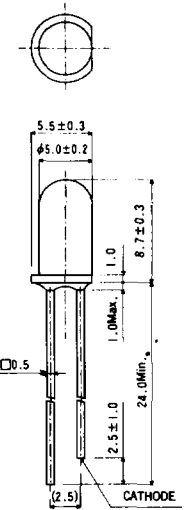
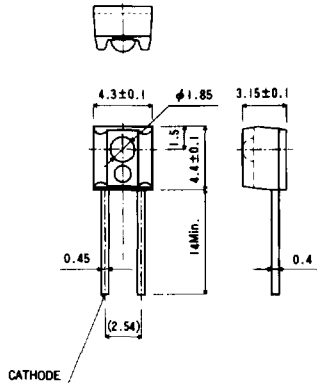
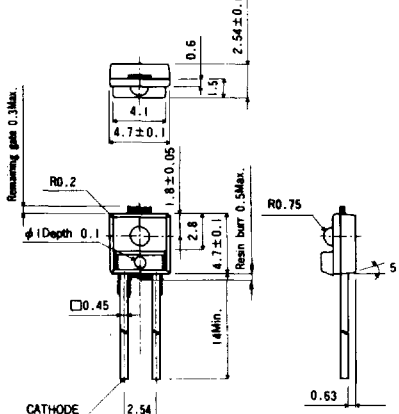
## ●Product Designation

- When ordering, specify the type.
- Check each code against the code tables shown below.
- Fill a space with the next character.



(Unit : mm)

Infrared Light Emitting Diodes  
Sensors

|                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                    |                                                                                                               |                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>SIR-481ST3F</b></p>                                                                                                                                                                                                         |  <p>5.4±0.3<br/>φ4.8±0.2<br/>1.4±0.2<br/>7.2±0.3<br/>0.6<br/>1.0Max.<br/>24Min.<br/>2.5±1.0<br/>(2.5) CATHODE</p> | <p><b>SIR-482ST3F</b></p>    |  <p>5.4±0.3<br/>φ4.8±0.2<br/>1.4±0.2<br/>7.2±0.3<br/>0.6<br/>1.0Max.<br/>24Min.<br/>2.5±1.0<br/>(2.5) CATHODE</p>                                                                    |
| <p><b>SIR-56SB3F · 563SB3F · SIR-5681ST3F, 5682ST3F, 5683ST3F</b></p>   <p>SIR-563SB3F<br/>SIR-5681ST3F<br/>SIR-5682ST3F<br/>SIR-5683ST3F</p> |  <p>5.5±0.3<br/>φ5.0±0.2<br/>8.7±0.3<br/>1.0<br/>1.0Max.<br/>24.0Min.<br/>2.5±1.0<br/>(2.5) CATHODE</p>          | <p><b>SIR-567ST3F</b></p>  |  <p>5.5±0.3<br/>φ5.0±0.2<br/>8.7±0.3<br/>1.0<br/>1.0Max.<br/>24.0Min.<br/>2.5±1.0<br/>(2.5) CATHODE</p>                                                                             |
| <p><b>SIM-20SB</b></p>                                                                                                                                                                                                          |  <p>4.3±0.1<br/>φ1.85<br/>3.15±0.1<br/>1.5<br/>4.4±0.1<br/>14Min.<br/>0.45<br/>(2.54) CATHODE</p>               | <p><b>SIM-22ST</b></p>     |  <p>Remaining gage 0.3Max.<br/>R0.2<br/>φ (Depth 0.1)<br/>0.45<br/>(2.54) CATHODE<br/>2.54<br/>14Min.<br/>4.7±0.1<br/>2.8<br/>1.8±0.05<br/>0.5<br/>2.54±0.1<br/>R0.75<br/>0.63</p> |