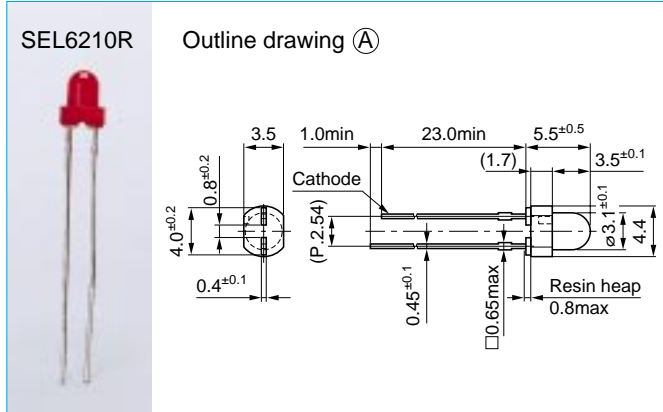
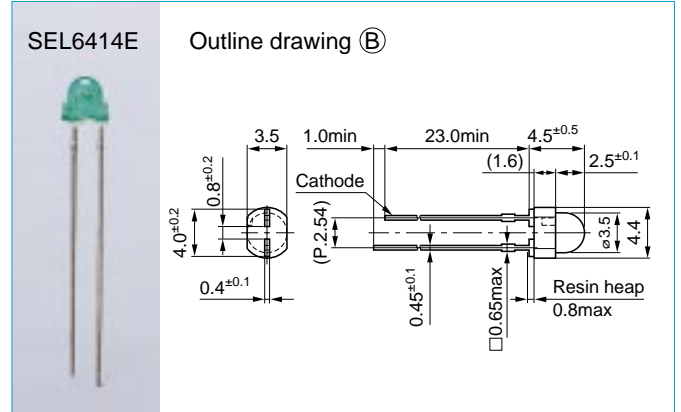


Round-type contact mount LEDs (for automatic insertion)

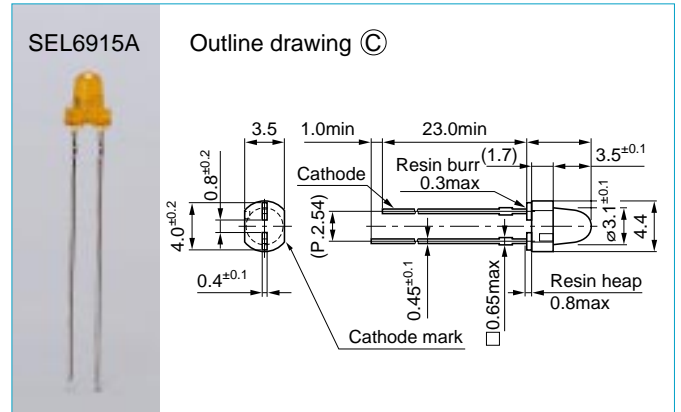
SEL6010 series (Standard type)



SEL6014 series (Wide viewing angle)



SEL6015 series (Narrow viewing angle)

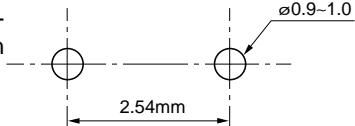


Absolute maximum ratings (Ta=25°C)

| Symbol | Unit | Rated |
|-----------------|------|-------------|
| I _F | mA | 30 |
| I _{FP} | mA | 100 |
| V _R | V | 3 |
| Top | °C | -30 to +85 |
| Tstg | °C | -30 to +100 |

SEL6000 series LEDs packaged on tapes can withstand shocks caused by insertion machines; Thus, they can be contact-mounted automatically on circuit boards.

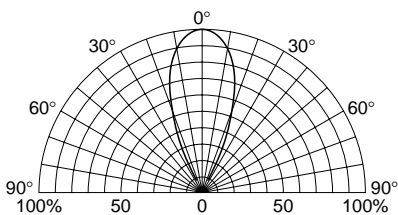
Recommended dimensions of insertion holes on printed circuit boards



External dimensions: Unit: mm Tolerance: ±0.3

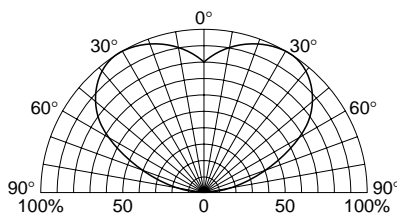
Viewing angle

SEL6010 series



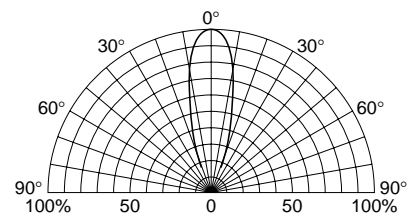
Viewing angle of a non-diffused lens

SEL6014 series

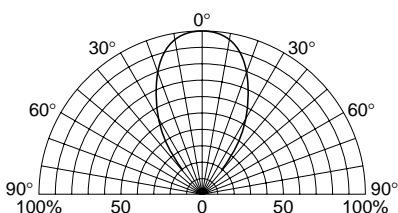


Viewing angle of a non-diffused lens

SEL6015 series



Viewing angle of a non-diffused lens

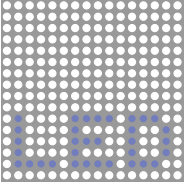


Viewing angle of a diffused lens

| Type No. | Display form (\varnothing : mm) | Type of lens | Emitting color | Electro-optical characteristics (Ta=25°C) | | | | | | | | | Outline drawing |
|----------|---------------------------------------|-----------------------------|--------------------|---|-----|-------------------------------|---------------------------|------------------------------|----------------------|-------------------------------|------------------|-----------------------|-----------------|
| | | | | V _F (V) | | Condition I _F (mA) | I _R (μ A) | Condition V _R (V) | I _V (mcd) | Condition I _F (mA) | λ_p (nm) | $\Delta\lambda$ (typ) | |
| | | | | typ | max | | | | | | | | |
| SEL6210R | ●3.1 | Red tinted, diffused | High intensity red | 1.9 | 2.5 | 10 | 50 | 3 | 12 | 20 | 630 | 35 | Ⓐ |
| SEL6210S | ●3.1 | Red tinted, non-diffused | | | | | | | | | | | |
| SEL6410G | ●3.1 | Green tinted, diffused | Green | 2.0 | 2.5 | 10 | 50 | 3 | 15 | 20 | 560 | 20 | |
| SEL6410E | ●3.1 | Green tinted, non-diffused | | | | | | | | | | | |
| SEL6510G | ●3.1 | Green tinted, diffused | Pure green | 2.0 | 2.5 | 10 | 50 | 3 | 5 | 20 | 555 | 20 | |
| SEL6510C | ●3.1 | Un-tinted, non-diffused | | | | | | | | | | | |
| SEL6710Y | ●3.1 | Yellow tinted, diffused | Yellow | 2.0 | 2.5 | 10 | 50 | 3 | 5 | 20 | 570 | 40 | |
| SEL6710K | ●3.1 | Yellow tinted, non-diffused | | | | | | | | | | | |
| SEL6810D | ●3.1 | Orange tinted, diffused | Amber | 1.9 | 2.5 | 10 | 50 | 3 | 4 | 10 | 610 | 35 | |
| SEL6810A | ●3.1 | Orange tinted, non-diffused | | | | | | | | | | | |
| SEL6910D | ●3.1 | Orange tinted, diffused | Orange | 1.9 | 2.5 | 10 | 50 | 3 | 6.5 | 10 | 587 | 33 | |
| SEL6910A | ●3.1 | Orange tinted, non-diffused | | | | | | | | | | | |
| SEL6214S | ●3.5 | Red tinted, non-diffused | High intensity red | 1.9 | 2.5 | 10 | 50 | 3 | 10 | 20 | 630 | 35 | Ⓑ |
| SEL6414E | ●3.5 | Green tinted, non-diffused | Green | 2.0 | | | | | | | | | |
| SEL6514C | ●3.5 | Un-tinted, non-diffused | Pure green | 2.0 | | | | | | | | | |
| SEL6814A | ●3.5 | Orange tinted, non-diffused | Amber | 1.9 | | | | | | | | | |
| SEL6914A | ●3.5 | Orange tinted, non-diffused | Orange | 1.9 | | | | | | | | | |
| SEL6215S | ●3.1 | Red tinted, non-diffused | High intensity red | 1.9 | 2.5 | 10 | 50 | 3 | 30 | 20 | 630 | 35 | Ⓒ |
| SEL6415E | ●3.1 | Green tinted, non-diffused | Green | 2.0 | | | | | | | | | |
| SEL6515C | ●3.1 | Un-tinted, non-diffused | Pure green | 2.0 | | | | | | | | | |
| SEL6815A | ●3.1 | Orange tinted, non-diffused | Amber | 1.9 | | | | | | | | | |
| SEL6915A | ●3.1 | Orange tinted, non-diffused | Orange | 1.9 | | | | | | | | | |

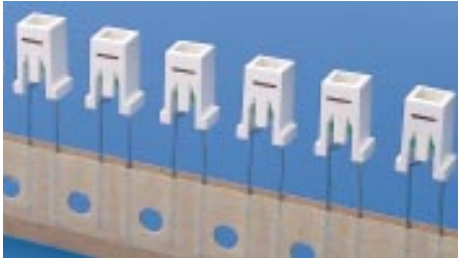
■Using contact mount LEDs packaged on tapes

1. Printed circuit board
 - One-side printed circuit board is recommended.
 - If there are several SMD parts on the same printed circuit board, insert the LEDs after the adhesive for other SMD parts hardened.
2. Insertion conditions
 - Use low insertion pusher pressure, as much as possible.
 - Cut and clinch: Panasert T pattern is recommended.
For N pattern, make the clinching angle of the LED's anode as small as possible.
3. Soldering conditions
 - Preheating must be less than 90°C (temperature on printed circuit board's bottom surface) for no more than two minutes
 - Solder dipping must be made at a temperature of 250°C for no more than 3 seconds.



Taping of packaged LEDs with holder (for automatic insertion)

TH12E

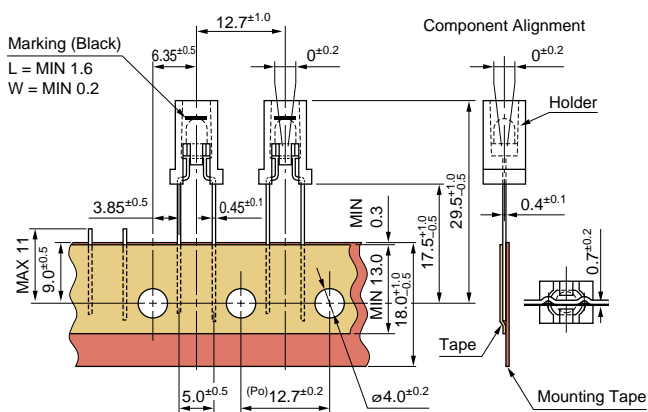


TH10D



Outline drawing (A)

TH12E

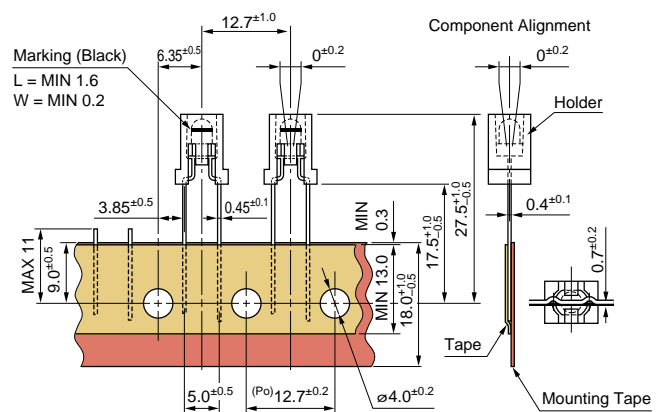


(Po): Cumulative pitch tolerance shall not exceed $\pm 1.0\text{mm}$ over 20 consecutive pitches.

Tolerance: ± 0.3

Outline drawing (B)

TH10D



(Po): Cumulative pitch tolerance shall not exceed $\pm 1.0\text{mm}$ over 20 consecutive pitches.

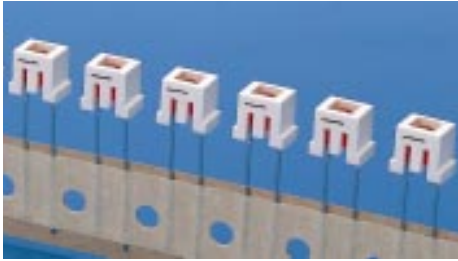
Tolerance: ± 0.3

External dimensions: Unit: mm Tolerance: ± 0.3

- Eliminates the cumbersome need to attach holders.
- Available in heights of 12 mm, 10 mm and 8 mm with a luminous area of 4.0 mm × 4.0 mm.
- Available in radial taping configuration with a lead pitch of 5 mm allowing mounting by inserters.

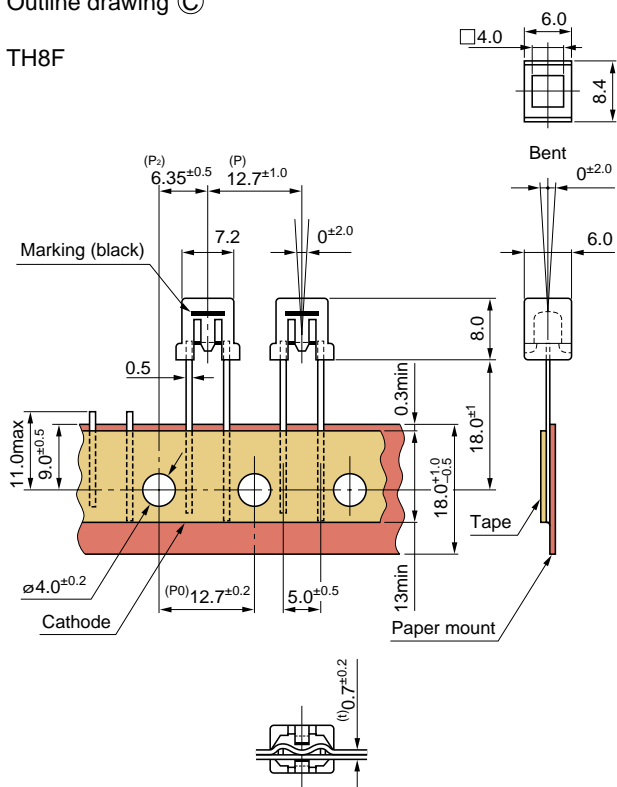
- Available in different colors.
- TH10D and TH12E are holders used for the SEL6010 series. TH8F is a holder used for the SEL5020 and SEL5021 series.

TH8F



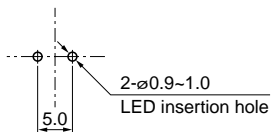
Outline drawing ©

TH8F



External dimensions: Unit: mm Tolerance: ±0.3

Recommended dimensions of insertion holes on printed circuit boards (common)



(P₀): The cumulative pitch error must be within ±1.0 for 2.0 pitches.

Product list

| Type No. | Emitting color |
|----------------|--------------------|
| SEL6210S TH12E | High intensity red |
| SEL6410E TH12E | Green |
| SEL6510C TH12E | Pure green |
| SEL6710K TH12E | Yellow |
| SEL6810A TH12E | Amber |
| SEL6910A TH12E | Orange |
| SEL6210S TH10D | High intensity red |
| SEL6410E TH10D | Green |
| SEL6510C TH10D | Pure green |
| SEL6710K TH10D | Yellow |
| SEL6810A TH10D | Amber |
| SEL6910A TH10D | Orange |
| SEL5220S TH8F | High intensity red |
| SEL5420E TH8F | Green |
| SEL5520C TH8F | Pure green |
| SEL5820A TH8F | Amber |
| SEL5920A TH8F | Orange |
| SEL5221S TH8F | High intensity red |
| SEL5421E TH8F | Green |
| SEL5521C TH8F | Pure green |
| SEL5821A TH8F | Amber |
| SEL5921A TH8F | Orange |

Quantity per box: 1,200