# UN604

## Silicon PNP epitaxial planer transistor
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For DC–DC converter

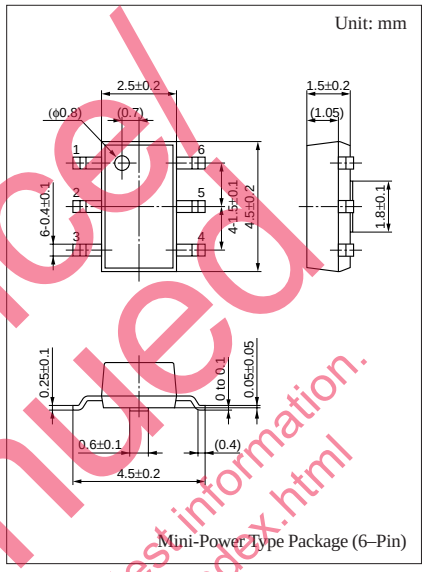


### Features

- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.
- Automatic mounting possible through 12mm wide emboss-taping supply.

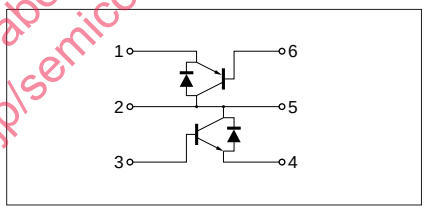
### Basic Part Number of Element

- M261L+M262L (Name of developed product)




Marking Symbol: 6O

Internal Connection




### Absolute Maximum Ratings (Ta=25˚C)

| Parameter | Symbol | Ratings | Unit |
|---|---|---|---|
| Collector to base voltage | $V_{CBO}$ | ±10 | V |
| Collector to emitter voltage | $V_{CEO}$ | ±10 | V |
| Emitter to base voltage | $V_{EBO}$ | ±7 | V |
| Collector current | $I_C$ | ±1.5 | A |
| Peak collector current | $I_{CP}$ | ±2 | A |
| Total power dissipation | $P_T$*1 | 1 | W |
| Junction temperature | $T_j$ | 150 | ˚C |
| Storage temperature | $T_{stg}$ | –55 to +150 | ˚C |

*1 Printed circuit board: Copper foil area of 4cm$^2$ or more and thickness of 1.7mm for the collector portion.

### Electrical Characteristics (Ta=25˚C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|---|---|---|---|---|---|
| Collector to base voltage | $V_{CBO}$ | $I_C$ = ±10µA, $I_E$ = 0 | ±10 | | | V |
| Collector to emitter voltage | $V_{CEO}$ | $I_C$ = ±1mA, $I_B$ = 0 | ±10 | | | V |
| Emitter to base voltage | $V_{EBO}$ | $I_E$ = ±10µA, $I_C$ = 0 | ±5 | | | V |
| Collector cutoff current | $I_{CBO}$ | $V_{CB}$ = ±7V, $I_E$ = 0 | | | ±1 | µA |
| Forward current transfer ratio | $h_{FE}$ | $V_{CE}$ = ±1V, $I_C$ = ±400mA*2 | 200 | | 700 | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C$ = ±1A, $I_B$ = ±25mA*2 | | ± 0.24 | ± 0.35 | V |
| Transition frequency | $f_T$ | $V_{CB}$ = ±6V, $I_E$ = ±50mA, f = 200MHz | | 190 | | MHz |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$ = ±10V, $I_E$ = 0, f = 1MHz | | 65 | | pF |
| Forward voltage | $V_F$*1 | $I_F$ = ±500mA | | | ±1.3 | V |

*1 Applicable to the built-in diode.

*2 Pulse test

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(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.