

# 2SD2260

## Silicon NPN triple diffusion planer type

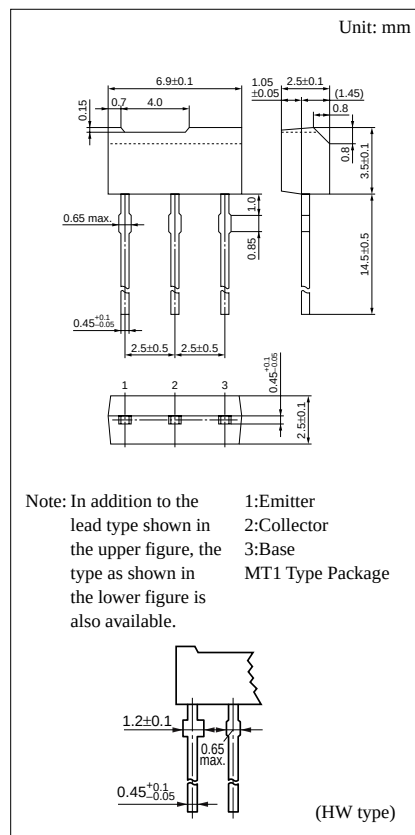
For high breakdown voltage general amplification

### Features

- High collector breakdown voltage.
- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- Allowing supply with the radial taping.

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

| Parameter                    | Symbol    | Ratings    | Unit |
|------------------------------|-----------|------------|------|
| Collector to base voltage    | $V_{CBO}$ | 400        | V    |
| Collector to emitter voltage | $V_{CEO}$ | 400        | V    |
| Emitter to base voltage      | $V_{EBO}$ | 5          | V    |
| Peak collector current       | $I_{CP}$  | 100        | mA   |
| Collector current            | $I_C$     | 70         | mA   |
| Collector power dissipation  | $P_C$     | 600        | mW   |
| Junction temperature         | $T_j$     | 150        | °C   |
| Storage temperature          | $T_{stg}$ | -55 ~ +150 | °C   |



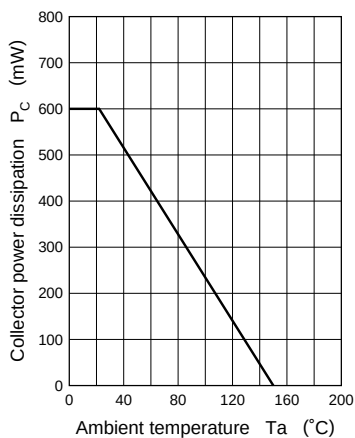
### Electrical Characteristics (Ta=25°C)

| Parameter                               | Symbol        | Conditions                              | min | typ | max | Unit    |
|-----------------------------------------|---------------|-----------------------------------------|-----|-----|-----|---------|
| Collector cutoff current                | $I_{CBO}$     | $V_{CB} = 100V, I_E = 0$                |     |     | 2   | $\mu A$ |
|                                         | $I_{CEO}$     | $V_{CE} = 100V, I_B = 0$                |     |     | 2   | $\mu A$ |
| Collector to emitter voltage            | $V_{CEO}$     | $I_C = 100\mu A, I_B = 0$               | 400 |     |     | V       |
| Emitter to base voltage                 | $V_{EBO}$     | $I_E = 10\mu A, I_C = 0$                | 5   |     |     | V       |
| Forward current transfer ratio          | $h_{FE}^*$    | $V_{CE} = 10V, I_C = 5mA$               | 60  |     | 220 |         |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 50mA, I_B = 5mA$                 |     | 0.4 | 1.2 | V       |
| Transition frequency                    | $f_T$         | $V_{CB} = 10V, I_E = -10mA, f = 200MHz$ | 50  | 80  |     | MHz     |
| Collector output capacitance            | $C_{ob}$      | $V_{CB} = 10V, I_E = 0, f = 1MHz$       |     | 4   | 10  | pF      |

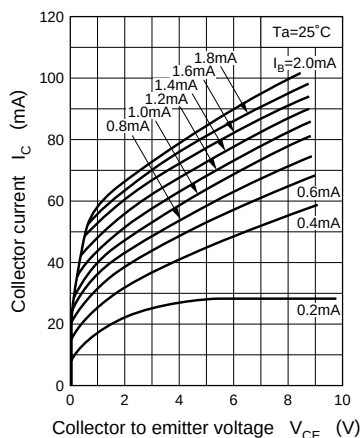
\* $h_{FE}$  Rank classification

| Rank     | Q        | R         |
|----------|----------|-----------|
| $h_{FE}$ | 60 ~ 150 | 100 ~ 220 |

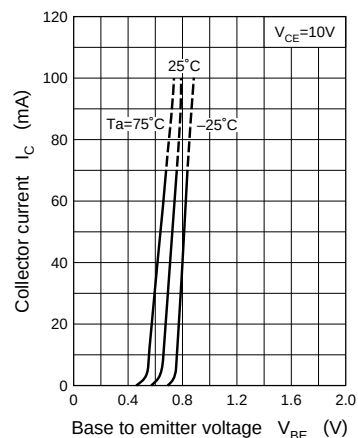
$P_C - T_a$



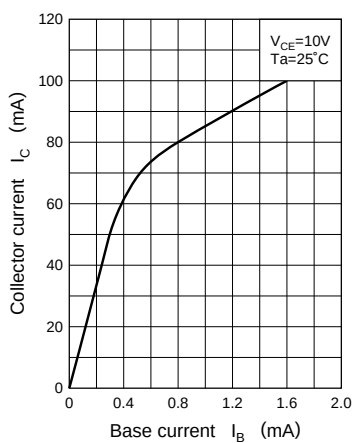
$I_C - V_{CE}$



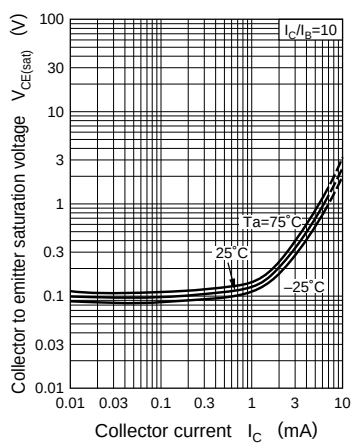
$I_C - V_{BE}$



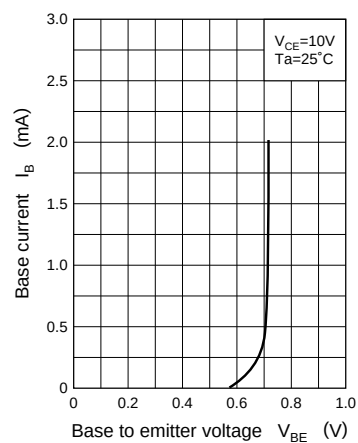
$I_C - I_B$



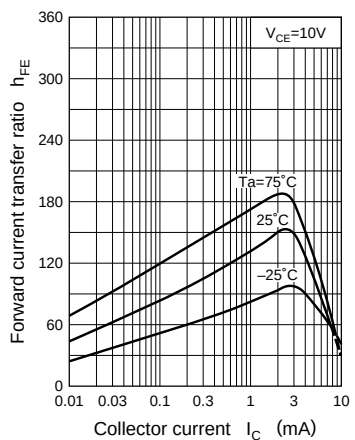
$V_{CE(sat)} - I_C$



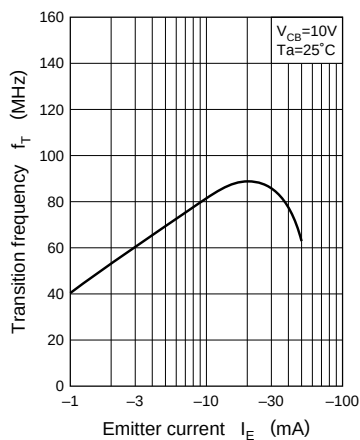
$I_B - V_{BE}$



$h_{FE} - I_C$



$f_T - I_E$



$I_{CBO} - T_a$

