

# 2SD2573

Silicon NPN triple diffusion planar type

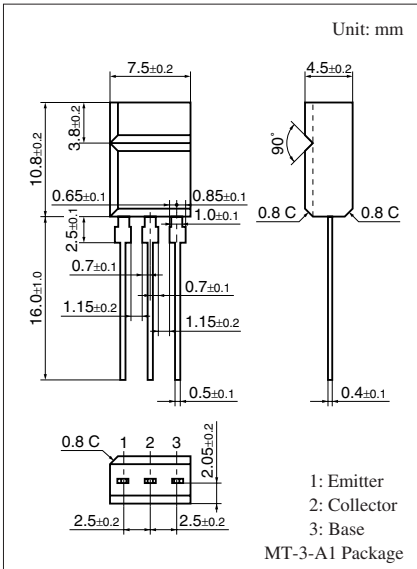
For high current amplification, power amplification

## ■ Features

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

## ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                                            | Symbol    | Rating      | Unit             |
|------------------------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open)                | $V_{CBO}$ | 80          | V                |
| Collector-emitter voltage (Base open)                | $V_{CEO}$ | 60          | V                |
| Emitter-base voltage (Collector open)                | $V_{EBO}$ | 6           | V                |
| Collector current                                    | $I_C$     | 3           | A                |
| Peak collector current                               | $I_{CP}$  | 6           | A                |
| Collector power dissipation $T_C = 25^\circ\text{C}$ | $P_C$     | 1.5         | W                |
| Junction temperature                                 | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature                                  | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |



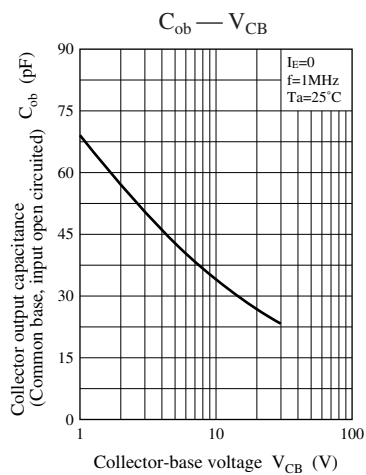
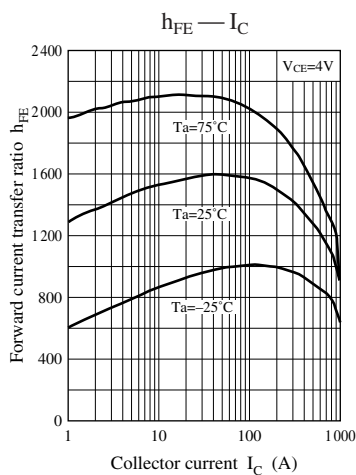
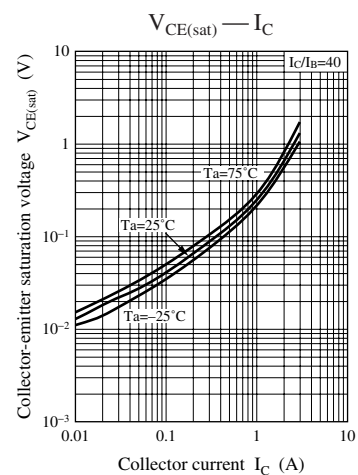
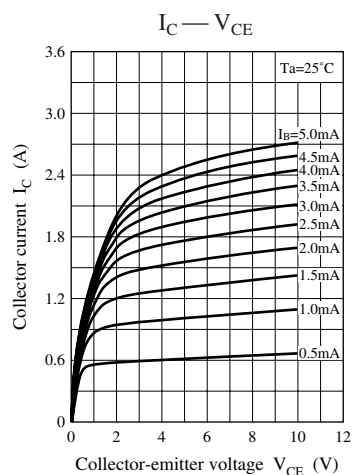
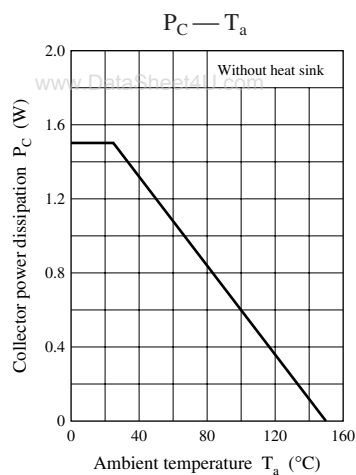
## ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter                                    | Symbol        | Conditions                                                       | Min | Typ | Max  | Unit          |
|----------------------------------------------|---------------|------------------------------------------------------------------|-----|-----|------|---------------|
| Collector-emitter voltage (Base open)        | $V_{CEO}$     | $I_C = 25 \text{ mA}, I_B = 0$                                   | 60  |     |      | V             |
| Collector-base cutoff current (Emitter open) | $I_{CBO}$     | $V_{CB} = 80 \text{ V}, I_E = 0$                                 |     |     | 100  | $\mu\text{A}$ |
| Collector-emitter cutoff current (Base open) | $I_{CEO}$     | $V_{CE} = 40 \text{ V}, I_B = 0$                                 |     |     | 100  | $\mu\text{A}$ |
| Emitter-base cutoff current (Collector open) | $I_{EBO}$     | $V_{EB} = 6 \text{ V}, I_C = 0$                                  |     |     | 100  | $\mu\text{A}$ |
| Forward current transfer ratio *             | $h_{FE}$      | $V_{CE} = 4 \text{ V}, I_C = 0.5 \text{ A}$                      | 500 |     | 2500 | —             |
| Collector-emitter saturation voltage         | $V_{CE(sat)}$ | $I_C = 2 \text{ A}, I_B = 0.05 \text{ A}$                        |     |     | 1.0  | V             |
| Transition frequency                         | $f_T$         | $V_{CE} = 12 \text{ V}, I_C = 0.2 \text{ A}, f = 10 \text{ MHz}$ |     | 50  |      | MHz           |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

| Rank     | P           | Q           | R            |
|----------|-------------|-------------|--------------|
| $h_{FE}$ | 500 to 1000 | 800 to 1500 | 1200 to 2500 |



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