

# 2SD1264, 2SD1264A

Silicon NPN triple diffusion planar type

For low-frequency power amplification

For TV vertical deflection output

Complementary to 2SB0940, 2S0940A

## ■ Features

- High collector-emitter voltage (Base open)  $V_{CEO}$
- Large collector power dissipation  $P_C$
- Full-pack package which can be installed to the heat sink with one screw

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

| Parameter                             | Symbol                         | Rating      | Unit             |
|---------------------------------------|--------------------------------|-------------|------------------|
| Collector-base voltage (Emitter open) | $V_{CBO}$                      | 200         | V                |
| Collector-emitter voltage (Base open) | 2SD1264 $V_{CEO}$              | 150         | V                |
|                                       | 2SD1264A                       | 180         |                  |
| Emitter-base voltage (Collector open) | $V_{EBO}$                      | 6           | V                |
| Collector current                     | $I_C$                          | 2           | A                |
| Peak collector current                | $I_{CP}$                       | 3           | A                |
| Collector power dissipation           | $T_C = 25^\circ\text{C}$ $P_C$ | 30          | W                |
|                                       |                                | 2.0         |                  |
| Junction temperature                  | $T_j$                          | 150         | $^\circ\text{C}$ |
| Storage temperature                   | $T_{stg}$                      | -55 to +150 | $^\circ\text{C}$ |

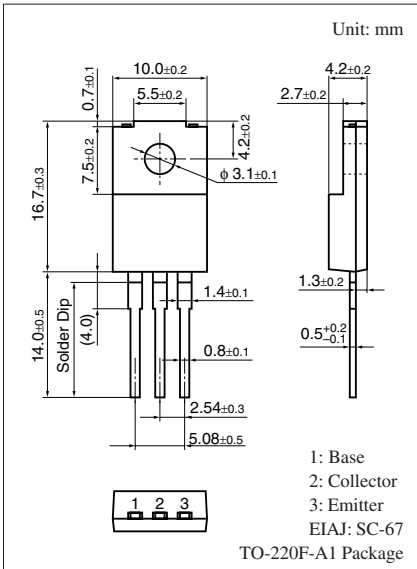
## ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

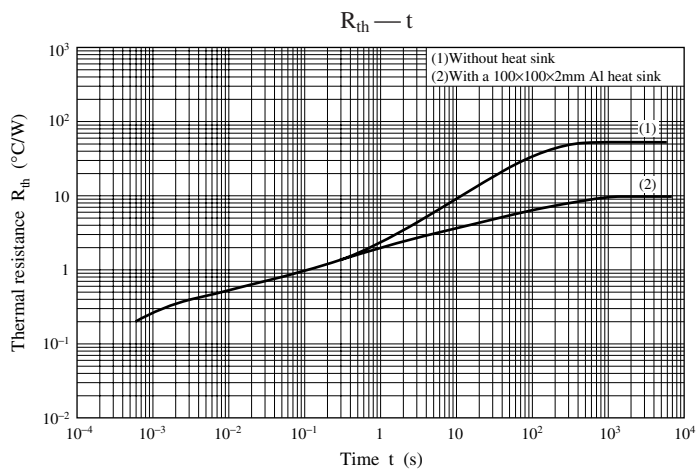
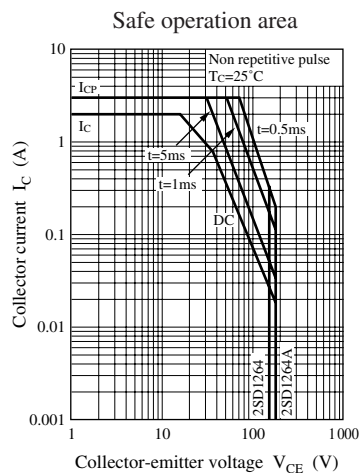
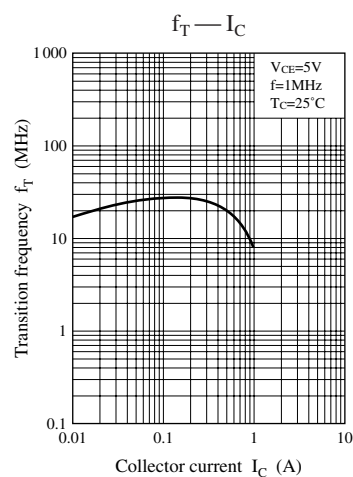
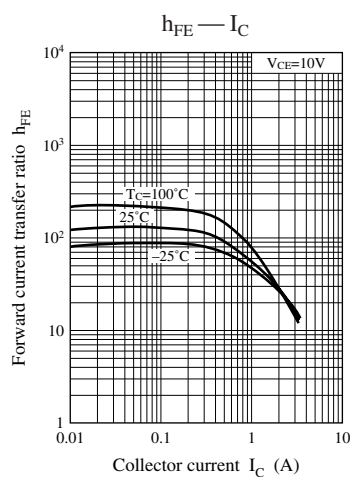
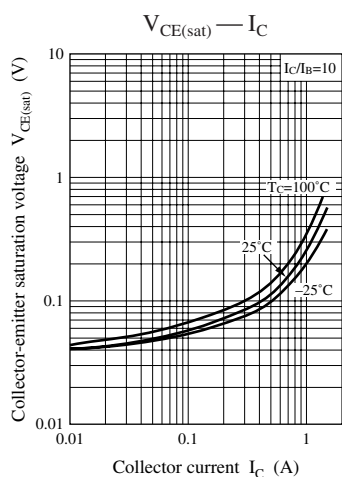
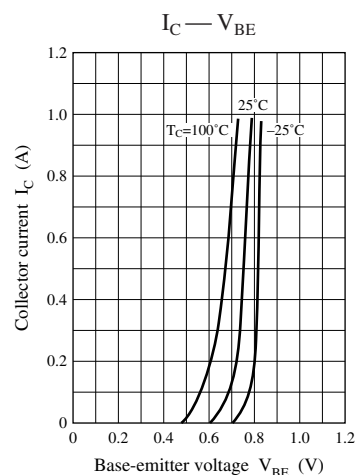
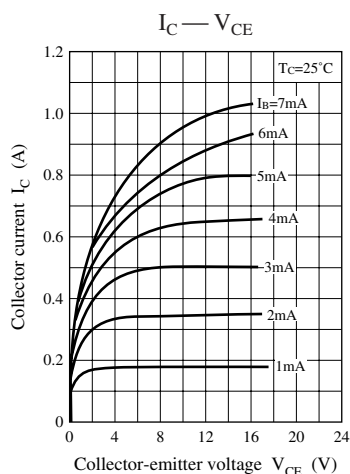
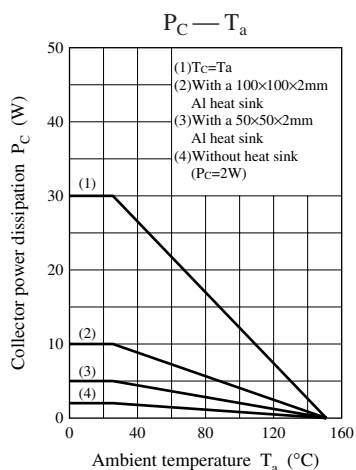
| Parameter                                    | Symbol            | Conditions                                                            | Min | Typ | Max | Unit          |
|----------------------------------------------|-------------------|-----------------------------------------------------------------------|-----|-----|-----|---------------|
| Collector-base voltage (Emitter open)        | $V_{CBO}$         | $I_C = 50 \mu\text{A}$ , $I_E = 0$                                    | 200 |     |     | V             |
| Collector-emitter voltage (Base open)        | 2SD1264 $V_{CEO}$ | $I_C = 5 \text{ mA}$ , $I_B = 0$                                      | 150 |     |     | V             |
|                                              | 2SD1264A          |                                                                       | 180 |     |     |               |
| Emitter-base voltage (Collector open)        | $V_{EBO}$         | $I_E = 500 \mu\text{A}$ , $I_C = 0$                                   | 6   |     |     | V             |
| Base-emitter voltage                         | $V_{BE}$          | $V_{CE} = 10 \text{ V}$ , $I_C = 400 \text{ mA}$                      |     |     | 1.0 | V             |
| Collector-base cutoff current (Emitter open) | $I_{CBO}$         | $V_{CB} = 200 \text{ V}$ , $I_E = 0$                                  |     |     | 50  | $\mu\text{A}$ |
| Emitter-base cutoff current (Collector open) | $I_{EBO}$         | $V_{EB} = 4 \text{ V}$ , $I_C = 0$                                    |     |     | 50  | $\mu\text{A}$ |
| Forward current transfer ratio               | $h_{FE1}^*$       | $V_{CE} = 10 \text{ V}$ , $I_C = 150 \text{ mA}$                      | 60  |     | 240 | —             |
|                                              | $h_{FE2}$         | $V_{CE} = 10 \text{ V}$ , $I_C = 400 \text{ mA}$                      | 50  |     |     |               |
| Collector-emitter saturation voltage         | $V_{CE(sat)}$     | $I_C = 500 \text{ mA}$ , $I_B = 50 \text{ mA}$                        |     |     | 1.0 | V             |
| Transition frequency                         | $f_T$             | $V_{CE} = 10 \text{ V}$ , $I_C = 0.5 \text{ A}$ , $f = 1 \text{ MHz}$ |     | 20  |     | MHz           |

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

2. \*: Rank classification

| Rank      | Q         | P          |
|-----------|-----------|------------|
| $h_{FE1}$ | 60 to 140 | 100 to 240 |





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