

# 2SD1732

## Silicon PNP Triple-Diffused Planar Type

### Horizontal Deflection Output

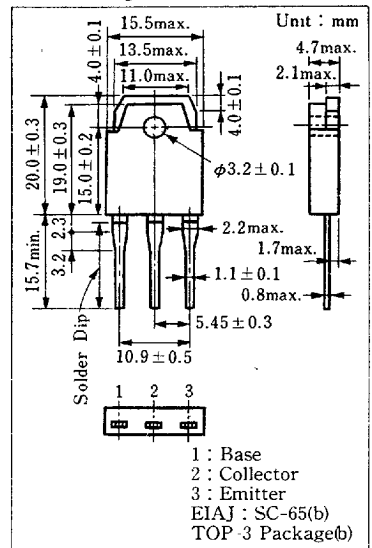
#### ■ Features

- Damper diode built-in
- Minimizes external component counts and simplifies circuitry
- High breakdown voltage, high reliability
- High speed switching
- Wide area of safety operation (ASO)

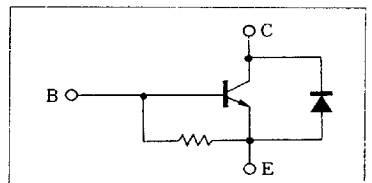
#### ■ Absolute Maximum Ratings (Tc=25°C)

| Item                        | Symbol    | Value      | Unit |
|-----------------------------|-----------|------------|------|
| Collector-base voltage      | $V_{CB0}$ | 1500       | V    |
| Collector-emitter voltage   | $V_{CEs}$ | 1500       | V    |
|                             | $V_{CE0}$ | 700        | V    |
| Emitter-base voltage        | $V_{EB0}$ | 7          | V    |
| Peak collector current      | $I_{CP}$  | 20         | A    |
| Collector current           | $I_C$     | 7          | A    |
| Base current                | $I_B$     | 3          | A    |
| Collector power dissipation | Tc=25°C   | 100        | W    |
|                             | Ta=25°C   | 2.5        |      |
| Junction temperature        | $T_J$     | 150        | °C   |
| Storage temperature         | $T_{stg}$ | -55 ~ +150 | °C   |

#### ■ Package Dimensions



#### ■ Inner Circuit



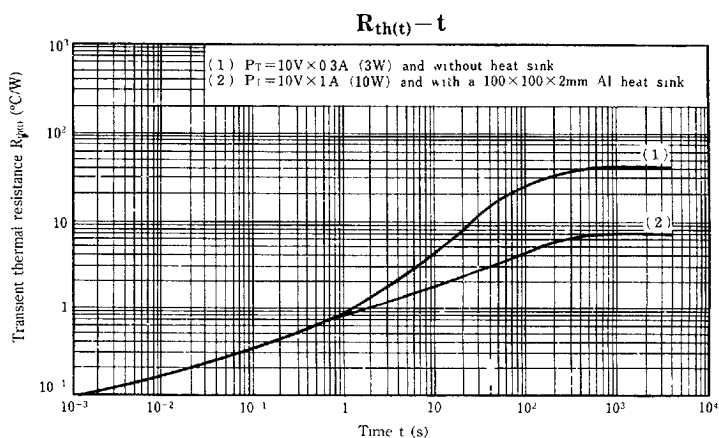
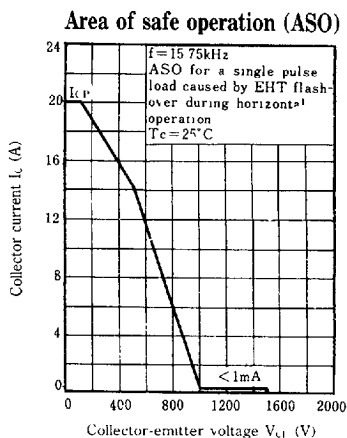
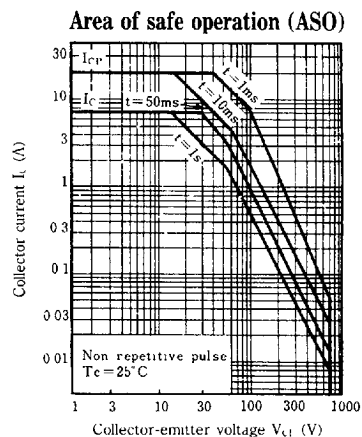
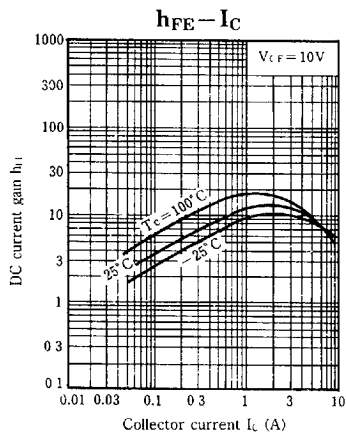
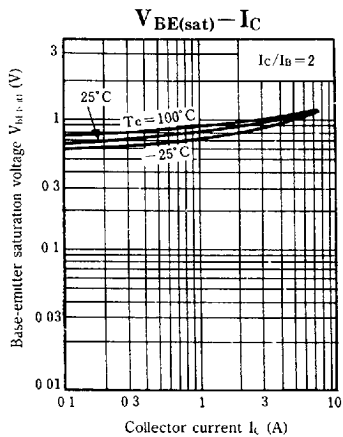
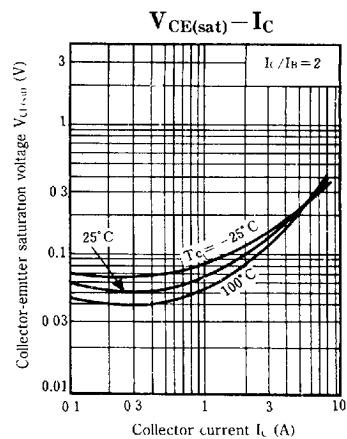
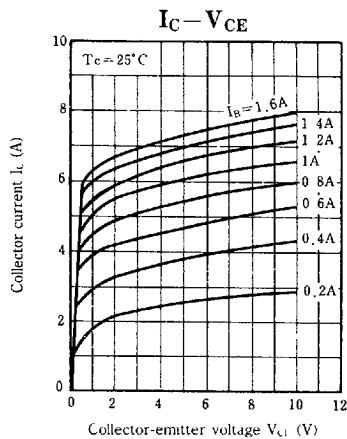
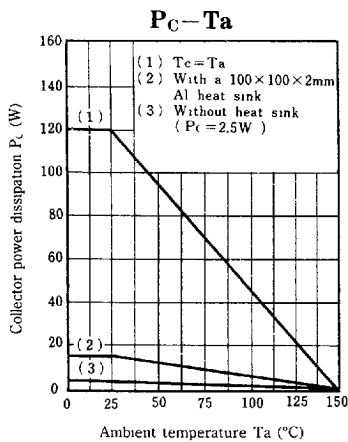
#### ■ Electrical Characteristics (Tc=25°C)

| Item                                 | Symbol        | Condition                                                       | min. | typ. | max. | Unit          |
|--------------------------------------|---------------|-----------------------------------------------------------------|------|------|------|---------------|
| Collector cutoff current             | $I_{CB0}$     | $V_{CB} = 750 \text{ V}, I_F = 0$                               |      |      | 10   | $\mu\text{A}$ |
|                                      |               | $V_{CB} = 1500 \text{ V}, I_F = 0$                              |      |      | 1    | mA            |
| Emitter-base voltage                 | $V_{FBO}$     | $I_E = 500 \text{ mA}, I_C = 0$                                 | 7    |      |      | V             |
| DC current gain                      | $h_{FE}$      | $V_{CE} = 5 \text{ V}, I_C = 1 \text{ A}$                       | 5    |      | 25   |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 6 \text{ A}, I_B = 1.4 \text{ A}$                        |      |      | 8    | V             |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = 6 \text{ A}, I_B = 1.4 \text{ A}$                        |      |      | 1.5  | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = 10 \text{ V}, I_C = 1 \text{ A}, f = 0.5 \text{ MHz}$ |      | 2    |      | MHz           |
| Storage time (L load)                | $t_{stg}$     | $I_C = 6 \text{ A}, I_{B1} = 1.4 \text{ A}$                     |      |      | 11   | $\mu\text{s}$ |
| Fall time (L load)                   | $t_f$         | $I_{B2} = -1.4 \text{ A}, L_{leak} = 5 \mu\text{H}$             |      |      | 0.8  | $\mu\text{s}$ |
| Storage time (R load)                | $t_{stg}$     | $I_C = 6 \text{ V}, I_{B1} = 1.2 \text{ A}$                     |      | 1.5  |      | $\mu\text{s}$ |
| Fall time (R load)                   | $t_f$         | $I_{B2} = -2.4 \text{ A}, V_{CC} = 200 \text{ V}$               |      | 0.2  |      | $\mu\text{s}$ |
| Diode forward voltage                | $V_F$         | $I_C = -7 \text{ A}, I_B = 0$                                   |      |      | -2.3 | V             |

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