

# 2SC5885

Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV, CRT monitor

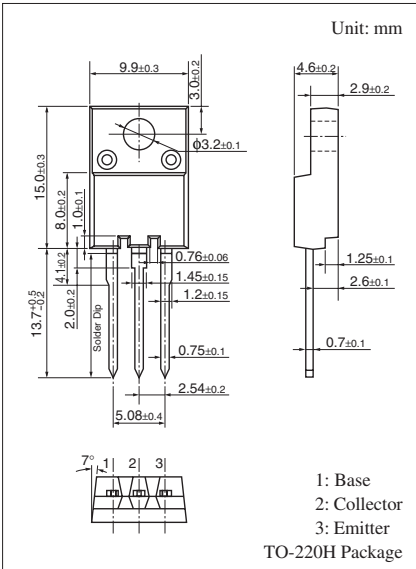
## ■ Features

- High breakdown voltage:  $V_{CBO} \geq 1\,500\text{ V}$
- Wide safe operation area
- Built-in dumper diode

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

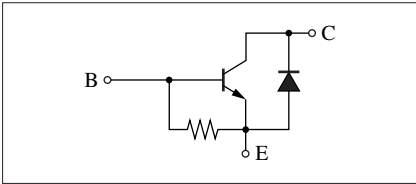
| Parameter                             | Symbol           | Rating      | Unit |
|---------------------------------------|------------------|-------------|------|
| Collector-base voltage (Emitter open) | V <sub>CBO</sub> | 1 500       | V    |
| Collector-emitter voltage (E-B short) | V <sub>CES</sub> | 1 500       | V    |
| Emitter-base voltage (Collector open) | V <sub>EBO</sub> | 5           | V    |
| Base current                          | I <sub>B</sub>   | 3           | A    |
| Collector current                     | I <sub>C</sub>   | 6           | A    |
| Peak collector current *              | I <sub>CP</sub>  | 9           | A    |
| Collector power dissipation           | P <sub>C</sub>   | 30          | W    |
| T <sub>a</sub> = 25°C                 |                  | 2           |      |
| Junction temperature                  | T <sub>j</sub>   | 150         | °C   |
| Storage temperature                   | T <sub>stg</sub> | −55 to +150 | °C   |

Note) \*: Non-repetitive peak collector current



Marking Symbol: C5885

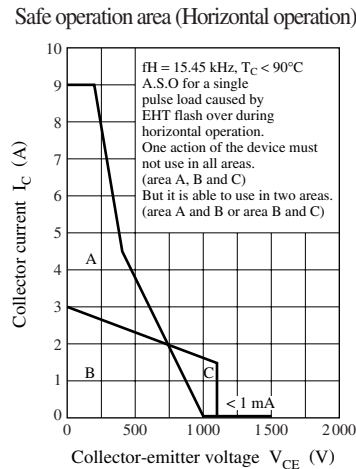
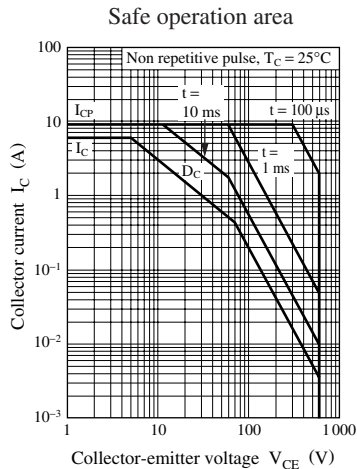
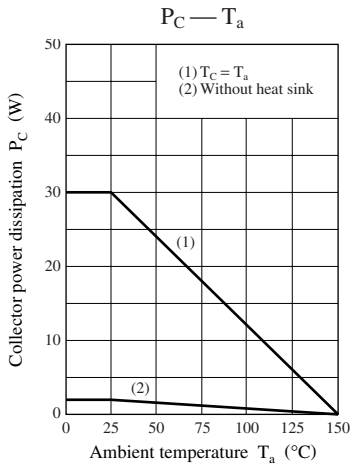
Internal Connection



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

| Parameter                                    | Symbol        | Conditions                                                     | Min | Typ | Max | Unit          |
|----------------------------------------------|---------------|----------------------------------------------------------------|-----|-----|-----|---------------|
| Emitter-base voltage (Collector open)        | $V_{EBO}$     | $I_E = 500\text{ mA}, I_C = 0$                                 | 5   |     |     | V             |
| Forward voltage                              | $V_F$         | $I_F = 3\text{ A}$                                             |     |     | -2  | V             |
| Collector-base cutoff current (Emitter open) | $I_{CBO}$     | $V_{CB} = 1\,000\text{ V}, I_E = 0$                            |     |     | 50  | $\mu\text{A}$ |
|                                              |               | $V_{CB} = 1\,500\text{ V}, I_E = 0$                            |     |     | 1   | mA            |
| Forward current transfer ratio               | $h_{FE}$      | $V_{CE} = 5\text{ V}, I_C = 3\text{ A}$                        | 5   |     | 10  | —             |
| Collector-emitter saturation voltage         | $V_{CE(sat)}$ | $I_C = 3\text{ A}, I_B = 0.75\text{ A}$                        |     |     | 2.5 | V             |
| Base-emitter saturation voltage              | $V_{BE(sat)}$ | $I_C = 3\text{ A}, I_B = 0.75\text{ A}$                        |     |     | 1.5 | V             |
| Transition frequency                         | $f_T$         | $V_{CE} = 10\text{ V}, I_C = 0.1\text{ A}, f = 0.5\text{ MHz}$ |     | 3   |     | MHz           |
| Storage time                                 | $t_{stg}$     | $I_C = 3\text{ A}, \text{Resistance loaded}$                   |     |     | 5.0 | $\mu\text{s}$ |
| Fall time                                    | $t_f$         | $I_{B1} = 0.75\text{ A}, I_{B2} = -1.5\text{ A}$               |     |     | 0.5 | $\mu\text{s}$ |

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



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