

2SC5931

Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV, CRT monitor

■ Features

- High breakdown voltage: $V_{CBO} \geq 1700$ V
- High speed switching: $t_f < 200$ ns
- Wide safe operation area

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

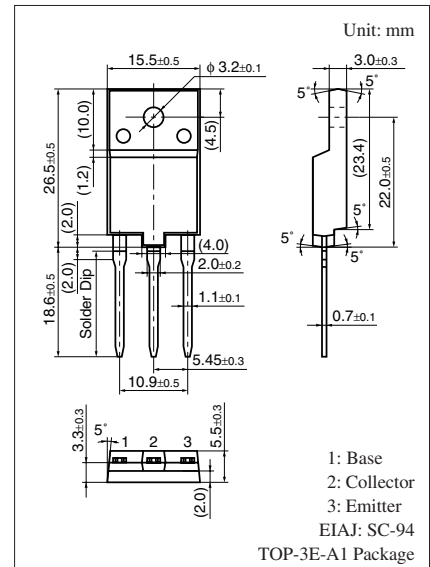
| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|--------------------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | 1700 | V |
| Collector-emitter voltage (E-B short) | V_{CES} | 1700 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | 600 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | 7 | V |
| Base current | I_B | 7.5 | A |
| Collector current | I_C | 15 | A |
| Peak collector current * | I_{CP} | 25 | A |
| Collector power dissipation | P_C | 60 | W |
| | | $T_a = 25^\circ\text{C}$ | |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note) *: Non-repetitive peak collector current

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

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--|---------------|---|-----|-----|-----|---------------|
| Collector-base cutoff current (Emitter open) | I_{CBO} | $V_{CB} = 1000$ V, $I_E = 0$ | | | 50 | μA |
| | | $V_{CB} = 1700$ V, $I_E = 0$ | | | 1 | mA |
| Emitter-base cutoff current (Collector open) | I_{EBO} | $V_{EB} = 7$ V, $I_C = 0$ | | | 50 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CE} = 5$ V, $I_C = 7.5$ A | 5 | | 10 | — |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 7.5$ A, $I_B = 1.88$ A | | | 3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = 7.5$ A, $I_B = 1.88$ A | | | 1.5 | V |
| Transition frequency | f_T | $V_{CE} = 10$ V, $I_C = 0.1$ A, $f = 0.5$ MHz | | 3 | | MHz |
| Storage time | t_{stg} | $I_C = 7.5$ A, Resistance loaded | | | 2.7 | μs |
| Fall time | t_f | $I_{B1} = 1.88$ A, $I_{B2} = -3.75$ A | | | 0.2 | μs |

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



Marking Symbol: C5931

Internal Connection

