

**2SD1882**

## Color TV Horizontal Deflection Output Applications

### Applications

- Color TV horizontal deflection output.
- Color display horizontal deflection output.

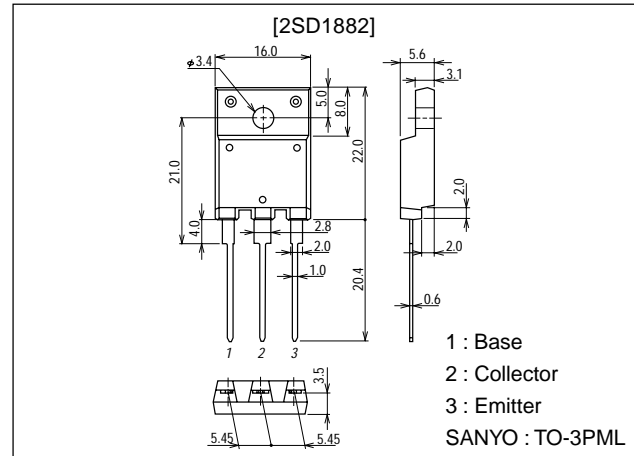
### Features

- High speed ( $t_f=100\text{ns}$ ).
- High breakdown voltage ( $V_{CBO}=1500\text{V}$ ).
- High reliability (adoption of HVP process).

### Package Dimensions

unit:mm

2039D



### Specifications

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

| Parameter                    | Symbol    | Conditions | Ratings     | Unit             |
|------------------------------|-----------|------------|-------------|------------------|
| Collector-to-Base Voltage    | $V_{CBO}$ |            | 1500        | V                |
| Collector-to-Emitter Voltage | $V_{CEO}$ |            | 800         | V                |
| Emitter-to-Base Voltage      | $V_{EBO}$ |            | 6           | V                |
| Collector Current            | $I_C$     |            | 3           | A                |
| Collector Current (Pulse)    | $I_{CP}$  |            | 12          | A                |
| Collector Dissipation        | $P_C$     |            | 50          | W                |
| Junction Temperature         | $T_J$     |            | 150         | $^\circ\text{C}$ |
| Storage Temperature          | $T_{stg}$ |            | -55 to +150 | $^\circ\text{C}$ |

#### Electrical Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                               | Symbol         | Conditions   | Ratings |     |     | Unit          |
|---|----------------|--|---------|-----|-----|---------------|
|   |                |  | min     | typ | max |               |
| Collector Cutoff Current                | $I_{CES}$      | $V_{CE}=1500\text{V}$                                    |         |     | 1.0 | mA            |
|   | $I_{CBO}$      | $V_{CB}=800\text{V}$                                     |         |     | 10  | $\mu\text{A}$ |
| Collector-to-Emitter Sustain Voltage    | $V_{CEO(sus)}$ | $I_C=100\text{mA}, I_B=0$                                | 800     |     |     | V             |
| Emitter Cutoff Current                  | $I_{EBO}$      | $V_{EB}=4\text{V}$                                       |         |     | 1.0 | mA            |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$  | $I_C=2\text{A}, I_B=0.6\text{A}$                         |         |     | 5   | V             |
| Base-to-Emitter Saturation Voltage      | $V_{BE(sat)}$  | $I_C=2\text{A}, I_B=0.6\text{A}$                         |         |     | 1.5 | V             |
| DC Current Gain                         | $h_{FE1}$      | $V_{CE}=5\text{V}, I_C=0.5\text{A}$                      | 8       |     |     |               |
|   | $h_{FE2}$      | $V_{CE}=5\text{V}, I_C=2\text{A}$                        | 3       |     | 6   |               |
| Fall Time                               | $t_f$          | $I_C=3\text{A}, I_{B1}=0.8\text{A}, I_{B2}=-1.6\text{A}$ |         | 0.1 | 0.3 | $\mu\text{s}$ |

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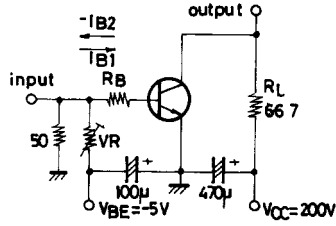
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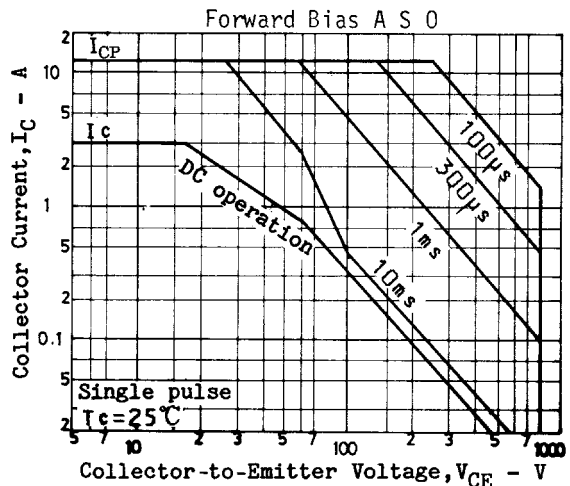
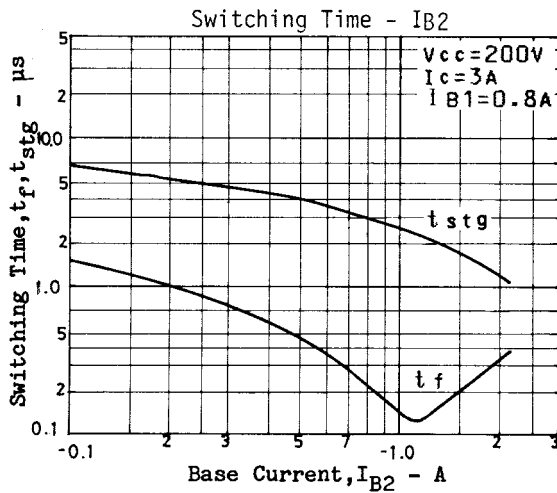
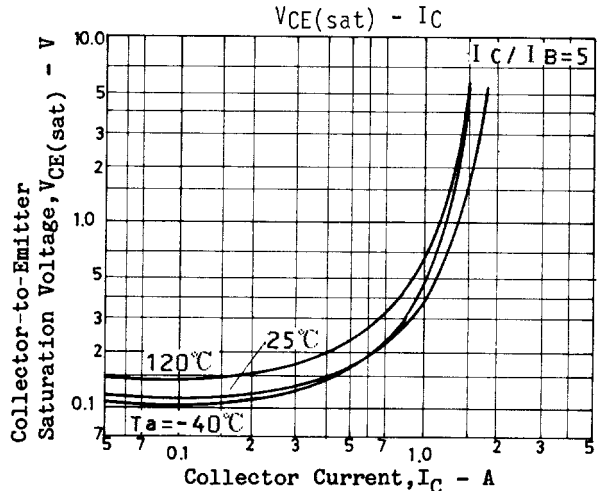
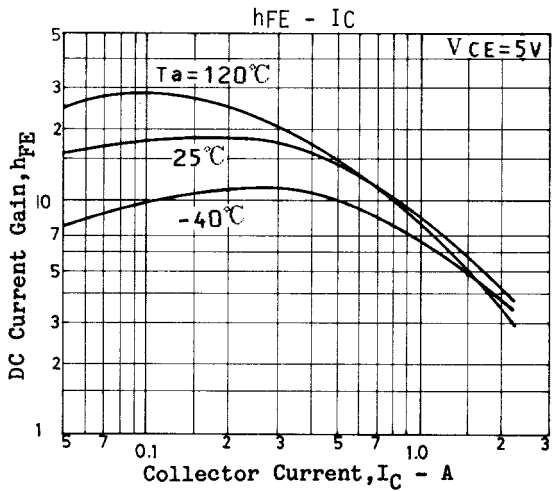
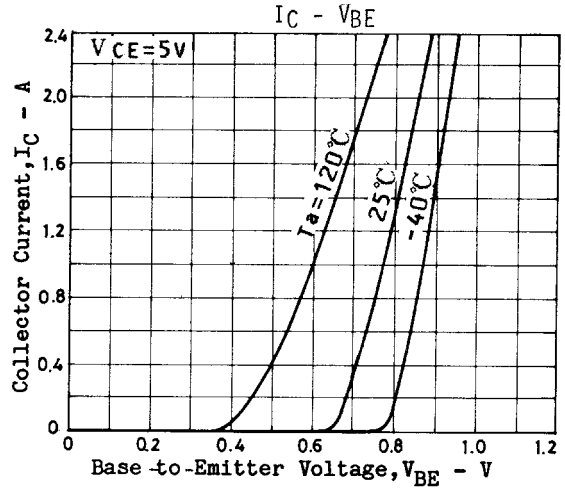
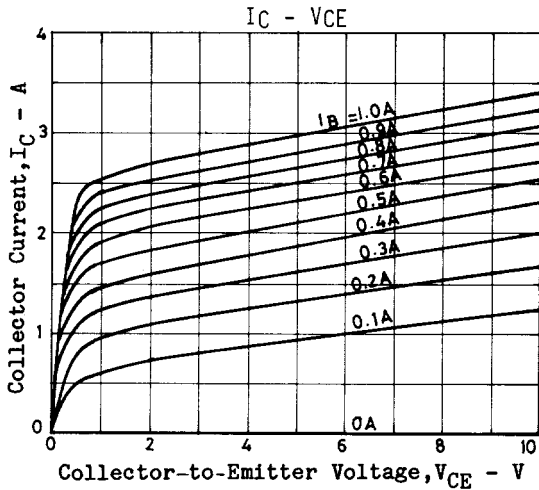
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Switching Time Test Circuit

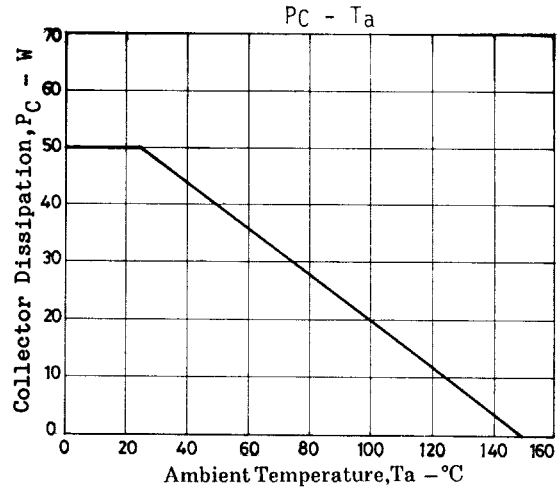
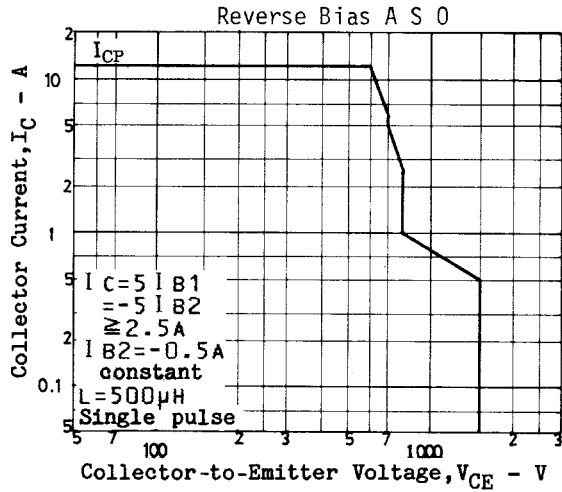
PW=20μs, duty ≤ 1%



Unit (resistance:Ω, capacitance:F)



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