

**2SD1876**

Color TV Horizontal Deflection Output Applications

Applications

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

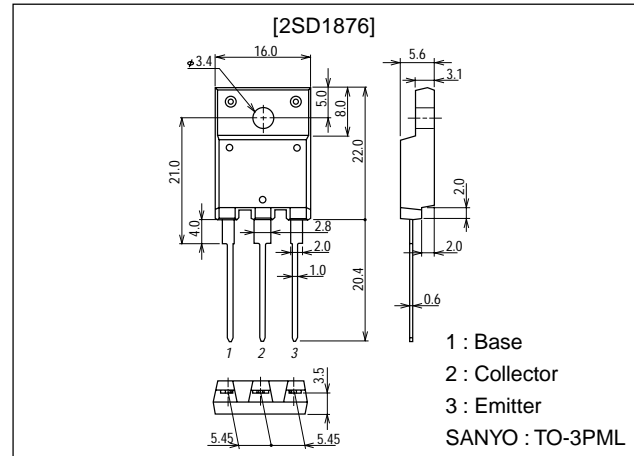
Features

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

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 | μA |
| Collector-to-Emitter Sustain Voltage | $V_{CEO(sus)}$ | $I_C=100\text{mA}, I_B=0$ | 800 | | | V |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=4\text{V}$ | 40 | | 130 | 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 | |
| Diode Forward Voltage | V_F | $I_{EC}=3\text{A}$ | | | 2.0 | V |
| 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 | μs |

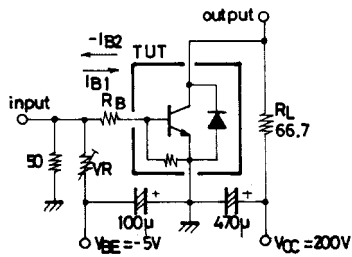
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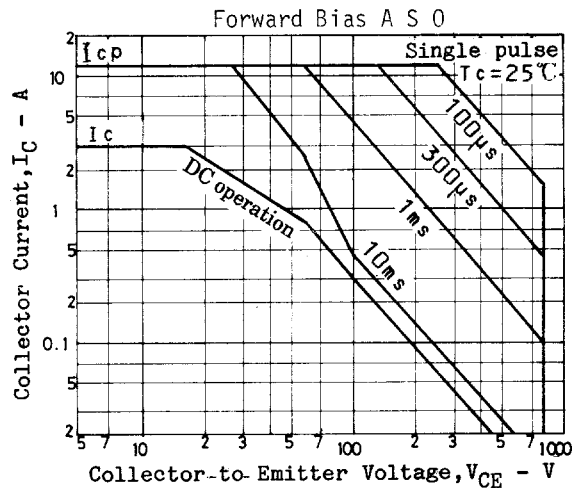
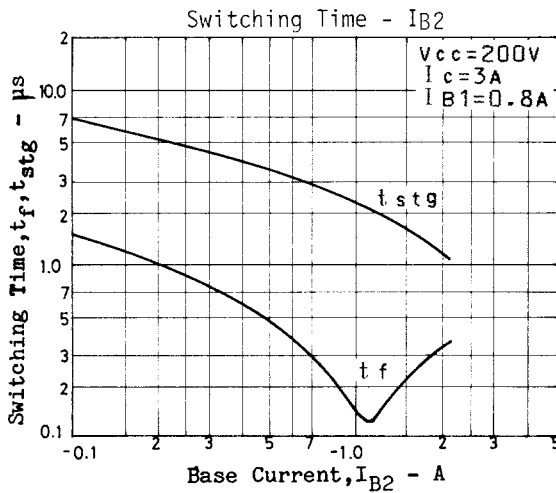
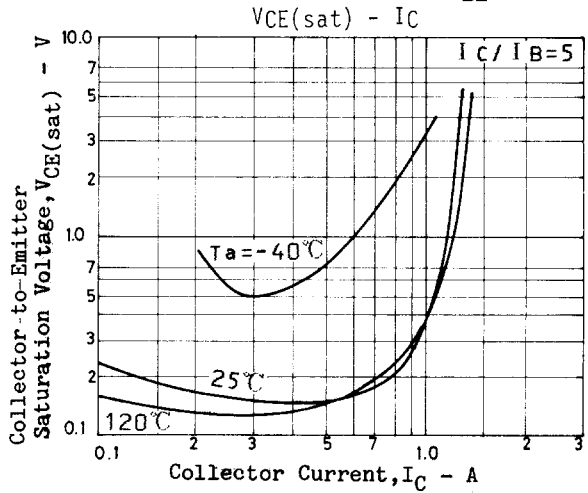
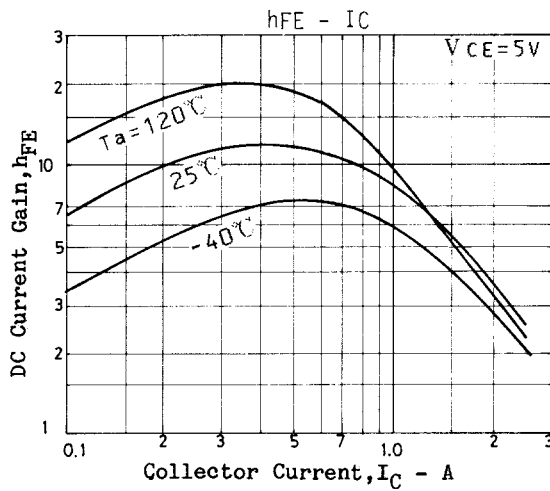
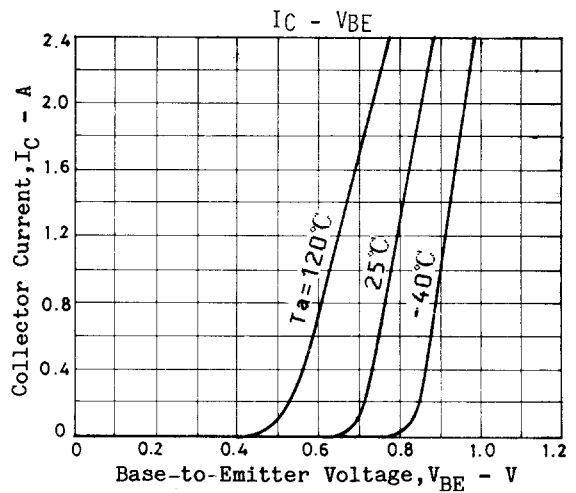
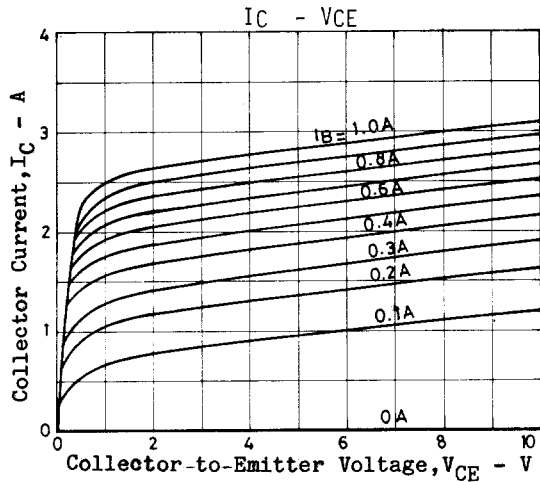
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Switching Time Test Circuit

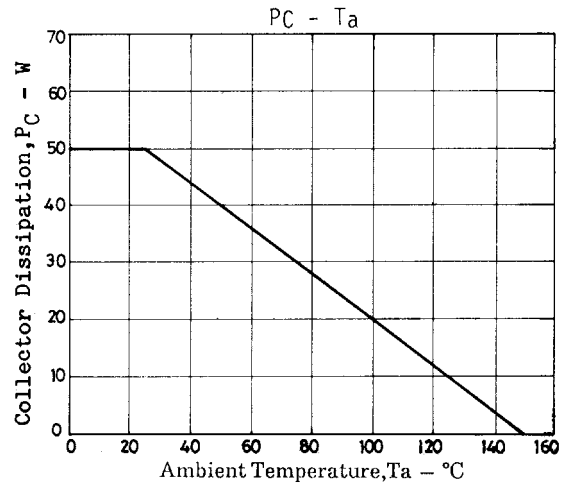
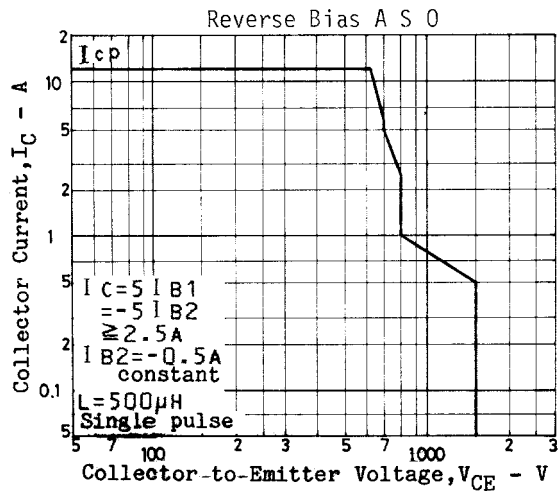


PW=20µs, duty ≤ 1%

Unit (resistance:Ω, capacitance:F)



2SD1876



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