

2SC5296

Ultrahigh-Definition CRT Display

Horizontal Deflection Output Applications

Features

- High Speed : $t_r = 100\text{ns}$ typ.
- High breakdown voltage : $V_{CBO} = 1500\text{V}$.
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.
- On-chip damper diode.

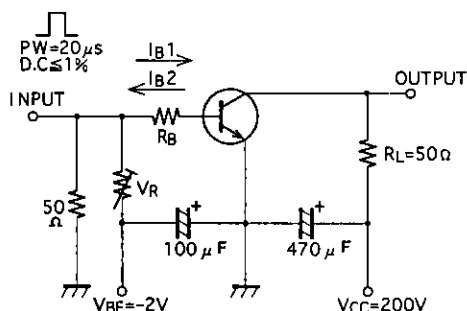
Absolute Maximum Ratings at Ta=25°C

| | | | |
|------------------------------|--------------------------|-------------|------------------|
| 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 | 8 | A |
| Collector Current (Pulse) | I_{CP} | 16 | A |
| Collector Dissipation | P_C | 3.0 | W |
| | $T_c = 25^\circ\text{C}$ | 60 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

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

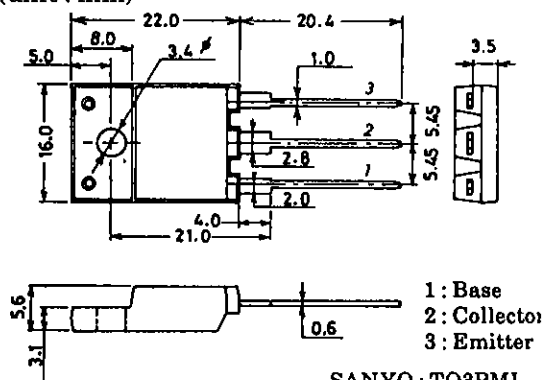
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------------|----------------|-------------------------------------|-----|-----|-----|---------|
| Collector Cutoff Current | I_{CBO} | $V_{CB}=800V, I_E=0$ | | | 10 | μA |
| Collector Cutoff Current | I_{CES} | $V_{CE}=1500V, R_{BE}=0$ | | | 1.0 | mA |
| Collector Sustaining Voltage | $V_{CEO(SUS)}$ | $I_C=100mA, I_B=0$ | 800 | | | V |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=4V, I_C=0$ | 40 | | 130 | mA |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C=5A, I_B=1.25A$ | | | 5 | V |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C=5A, I_B=1.25A$ | | | 1.5 | V |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=5V, I_C=1A$ | 15 | | 25 | |
| | $h_{FE(2)}$ | $V_{CE}=5V, I_C=5A$ | 4 | | 7 | |
| Storage Time | t_{stg} | $I_C=4A, I_{B1}=0.8A, I_{B2}=-1.6A$ | | | 3.0 | μs |
| Fall Time | t_f | $I_C=4A, I_{B1}=0.8A, I_{B2}=-1.6A$ | | 0.1 | 0.2 | μs |

Switching Time Test Circuit



Package Dimensions 2039C

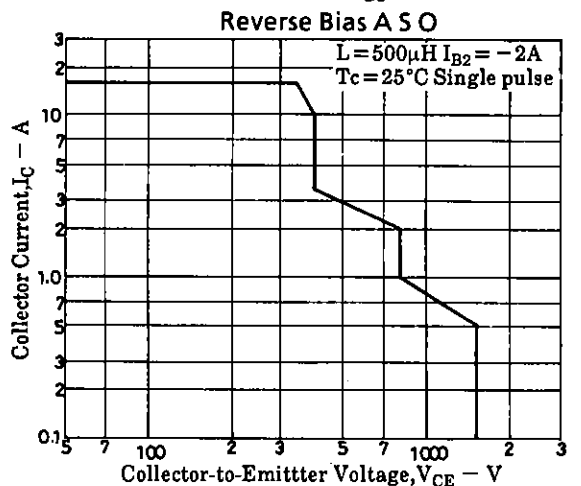
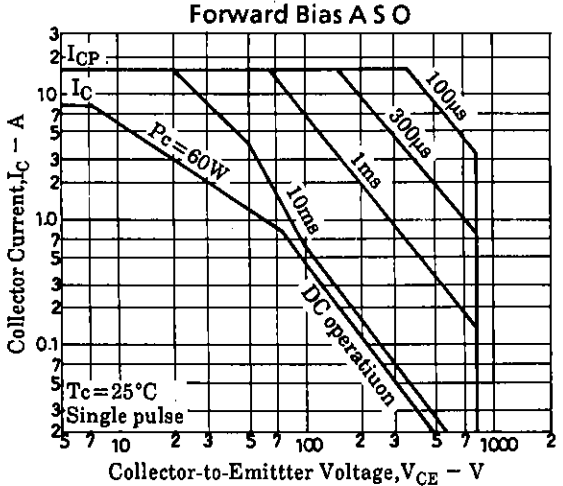
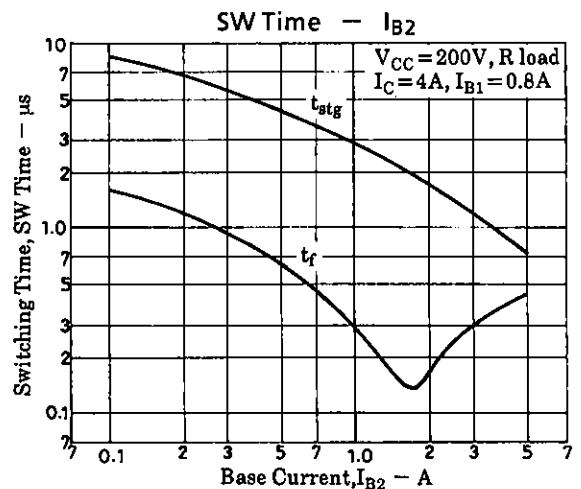
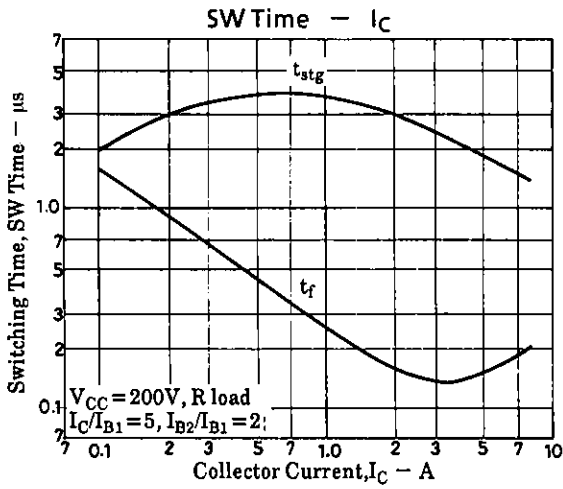
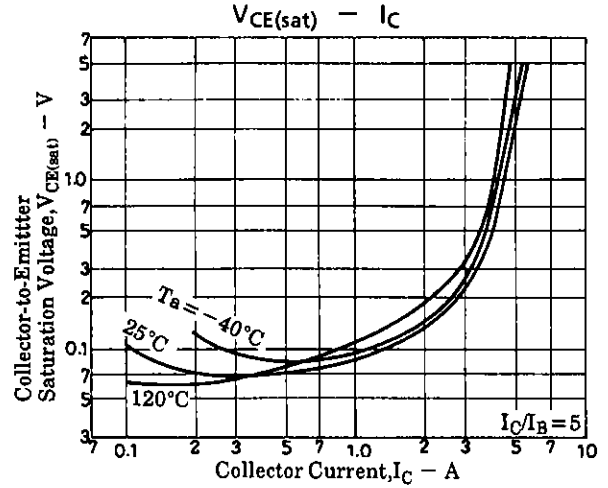
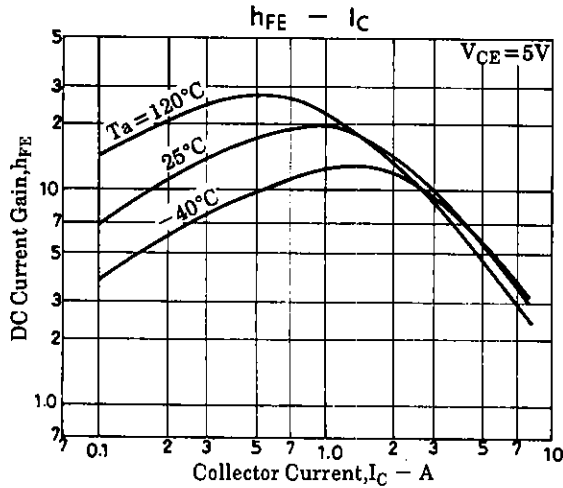
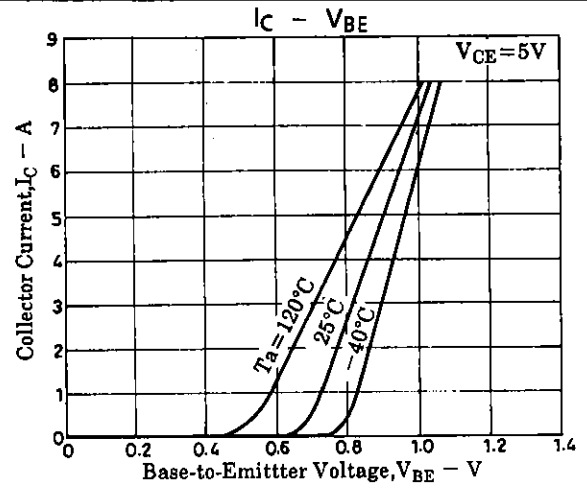
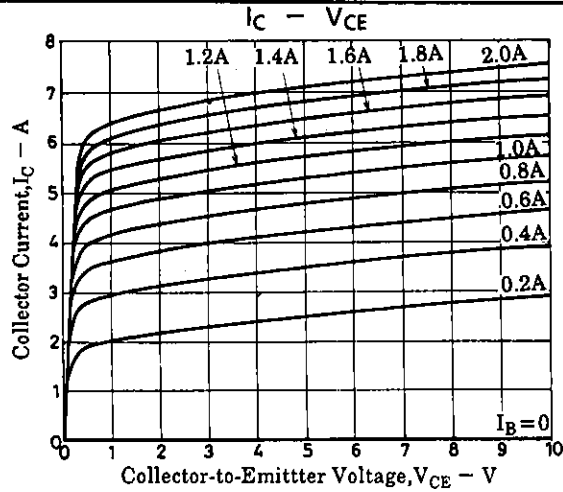
(unit : mm)

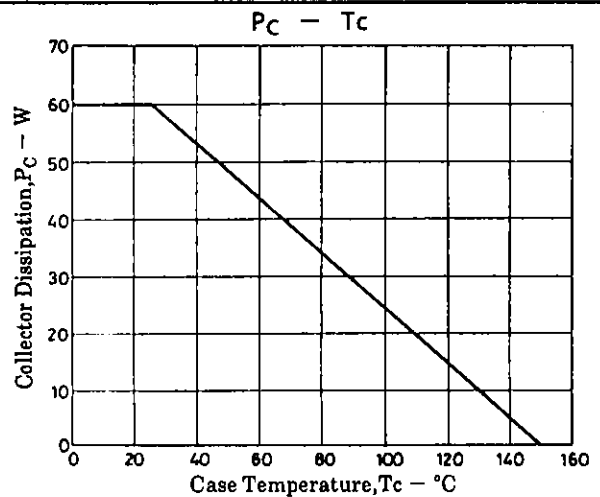
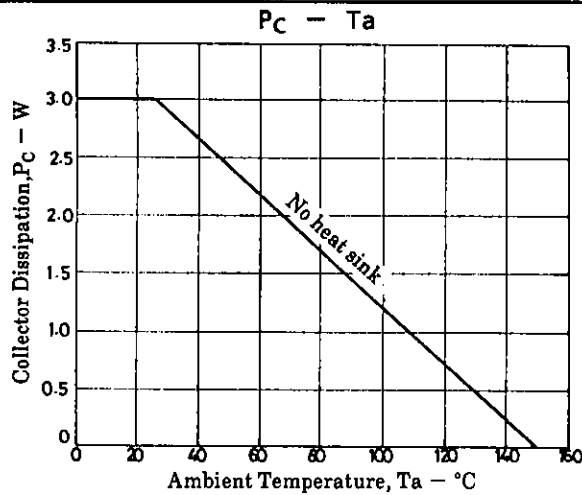


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