

**SANYO**

No. 4097

**2SC3896**

NPN Triple Diffused Planar Silicon Transistor  
 Very High-Definition CRT Display  
 Horizontal Deflection Output Applications

**Features**

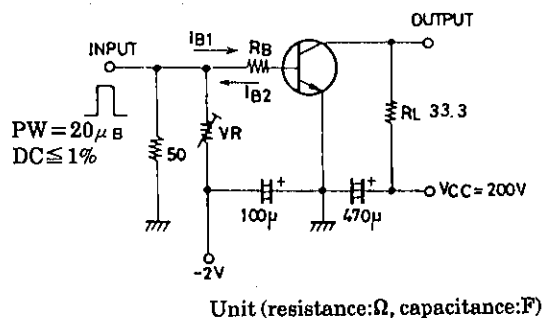
- High-speed ( $t_f$  typ = 100ns).
- High reliability (Adoption of HVP process).
- High breakdown voltage ( $V_{CBO} = 1500V$ ).
- Adoption of MBIT process.

**Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

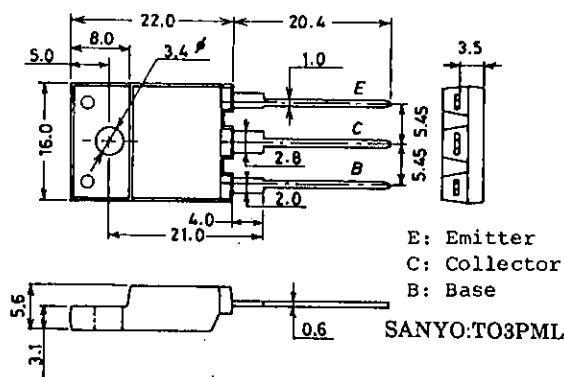
|                              |           |             | unit       |
|------------------------------|-----------|-------------|------------|
| Collector-to-Base Voltage    | $V_{CBO}$ | 1500        | V          |
| Collector-to-Emitter Voltage | $V_{CEO}$ | 800         | V          |
| Emitter-to-Base Voltage      | $V_{EBO}$ | 6           | V          |
| Collector Current            | $I_C$     | 8           | A          |
| Peak Collector Current       | $i_{cp}$  | 25          | A          |
| Collector Dissipation        | $P_C$     | 3.0         | W          |
|                              |           | 70          | W          |
| Junction Temperature         | $T_j$     | 150         | $^\circ C$ |
| Storage Temperature          | $T_{stg}$ | -55 to +150 | $^\circ C$ |

 $T_c = 25^\circ C$ **Electrical Characteristics at  $T_a = 25^\circ C$** 

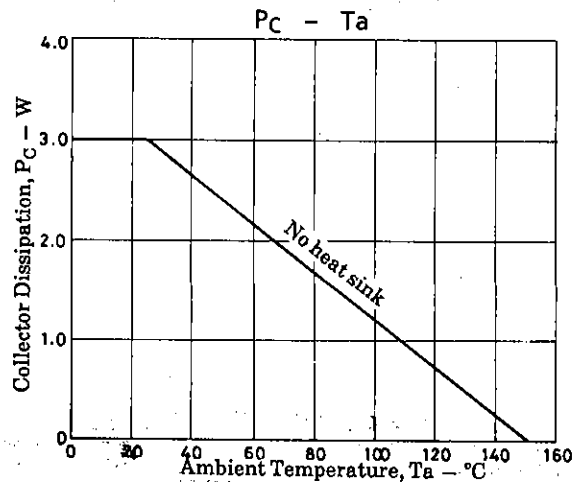
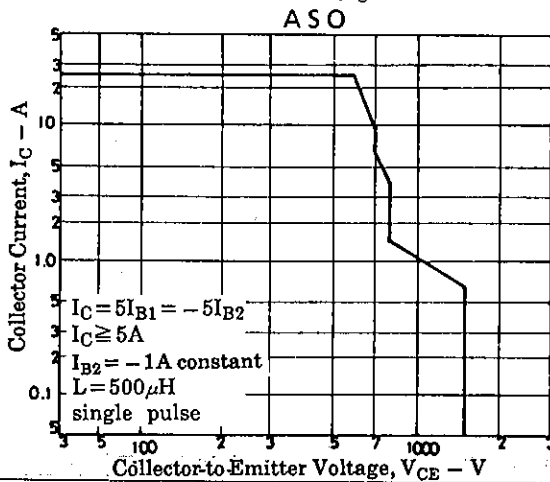
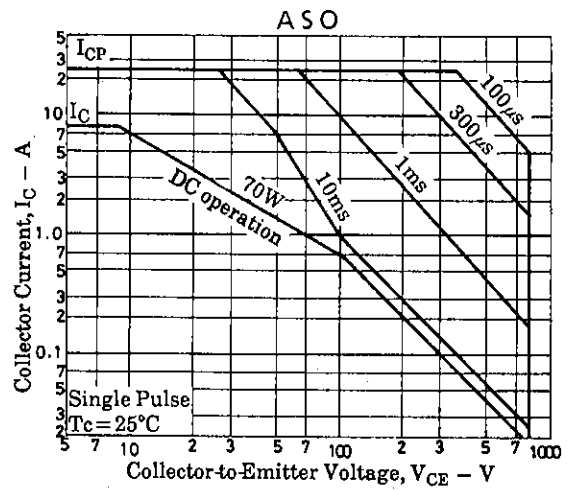
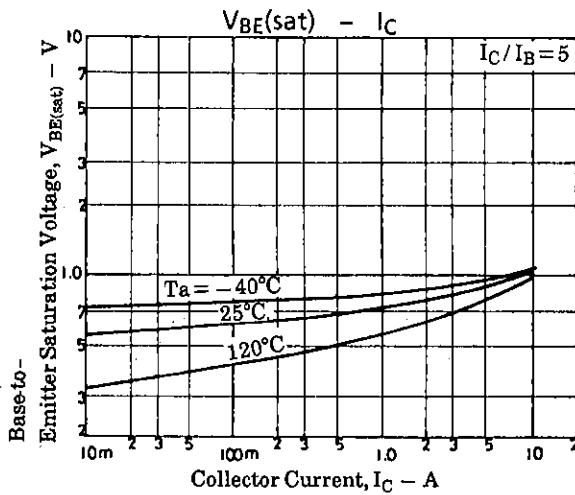
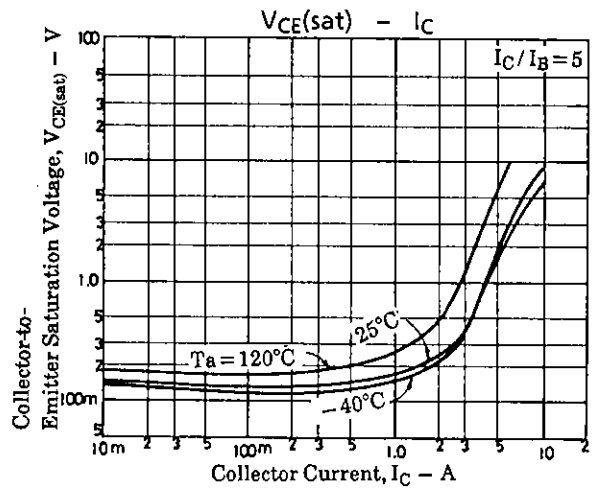
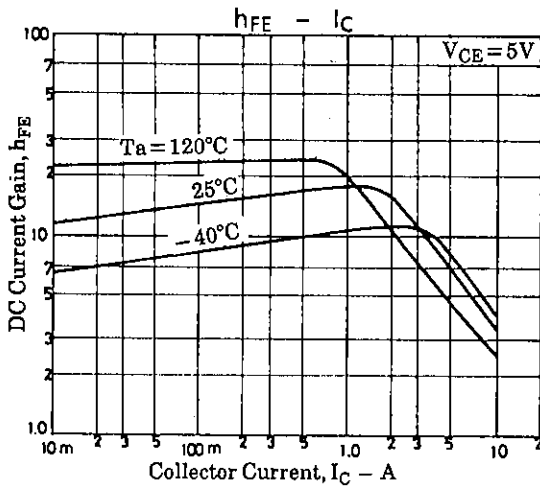
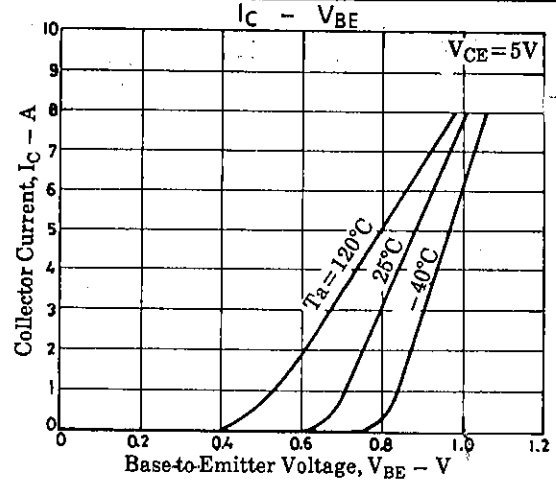
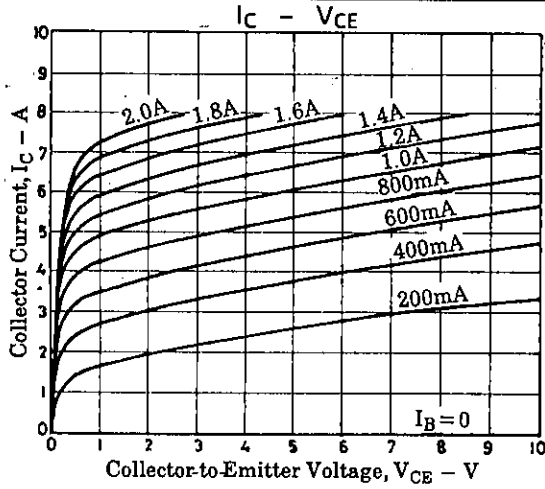
|                           |                |                                           | min | typ | max | unit    |
|---------------------------|----------------|-------------------------------------------|-----|-----|-----|---------|
| Collector Cutoff Current  | $I_{CBO}$      | $V_{CB} = 800V, I_E = 0$                  |     |     | 10  | $\mu A$ |
|                           | $I_{CES}$      | $V_{CE} = 1500V, R_{BE} = 0$              |     |     | 1.0 | mA      |
| Collector Sustain Voltage | $V_{CEO(sus)}$ | $I_C = 100mA, I_B = 0$                    | 800 |     |     | V       |
| Emitter Cutoff Current    | $I_{EBO}$      | $V_{EB} = 4V, I_C = 0$                    |     |     | 1.0 | mA      |
| C-E Saturation Voltage    | $V_{CE(sat)}$  | $I_C = 6A, I_B = 1.5A$                    |     |     | 5   | V       |
| B-E Saturation Voltage    | $V_{BE(sat)}$  | $I_C = 6A, I_B = 1.5A$                    |     |     | 1.5 | V       |
| DC Current Gain           | $h_{FE(1)}$    | $V_{CE} = 5V, I_C = 1A$                   | 8   |     |     |         |
|                           | $h_{FE(2)}$    | $V_{CE} = 5V, I_C = 6A$                   | 4   |     | 8   |         |
| Storage Time              | $t_{stg}$      | $I_C = 6A, I_{B1} = 1.2A, I_{B2} = -2.4A$ |     |     | 3.0 | $\mu s$ |
| Fall Time                 | $t_f$          | $I_C = 6A, I_{B1} = 1.2A, I_{B2} = -2.4A$ |     | 0.1 | 0.2 | $\mu s$ |

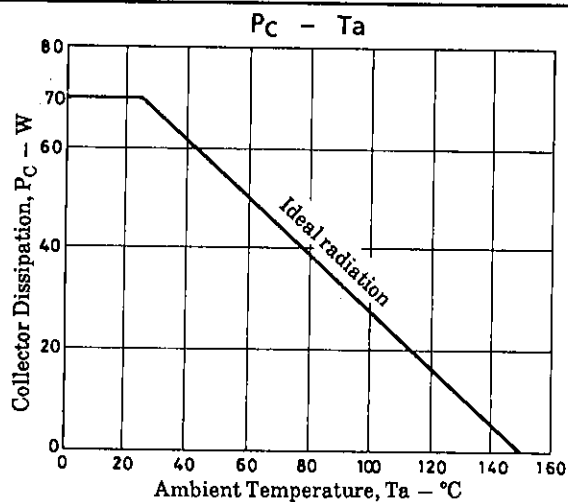
**Switching Time Test Circuit****Package Dimensions 2039A**

(unit: mm)

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