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| SANYO | No.2771 | 2SC3997 |
| | NPN Triple Diffused Planar Silicon Transistor Very High-Definition Color Display Horizontal Deflection Output Applications | |

Features

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

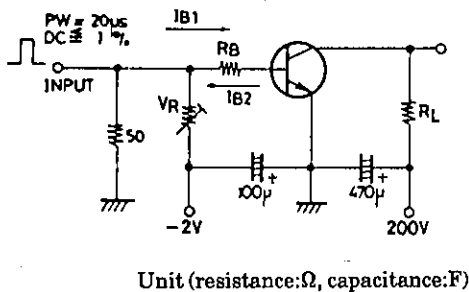
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

| | | | | |
|------------------------------|-----------|-------------|------------------|------------------------|
| Collector-to-Base Voltage | V_{CBO} | 1500 | V | unit |
| Collector-to-Emitter Voltage | V_{CEO} | 800 | V | |
| Emitter-to-Base Voltage | V_{EBO} | 6 | V | |
| Collector Current | I_C | 20 | A | |
| Peak Collector Current | i_{cp} | 40 | A | |
| Collector Dissipation | P_C | 250 | W | $T_c=25^\circ\text{C}$ |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ | |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ | |

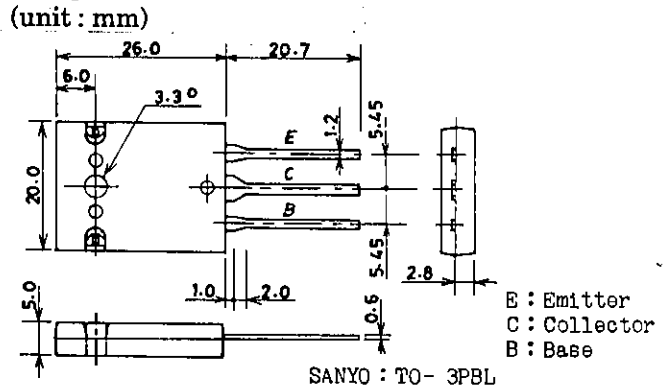
Electrical Characteristics at $T_a=25^\circ\text{C}$

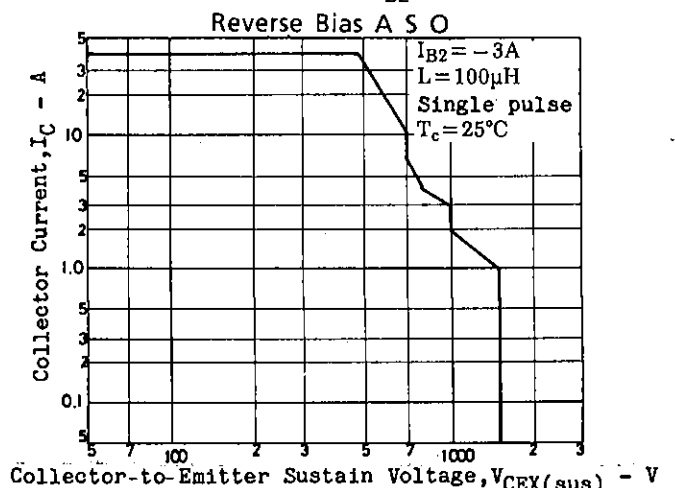
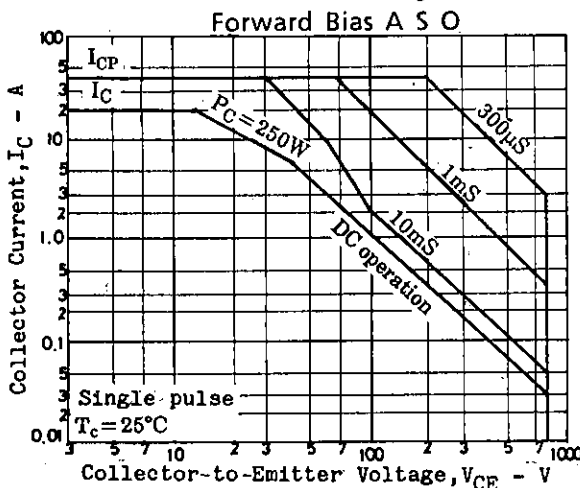
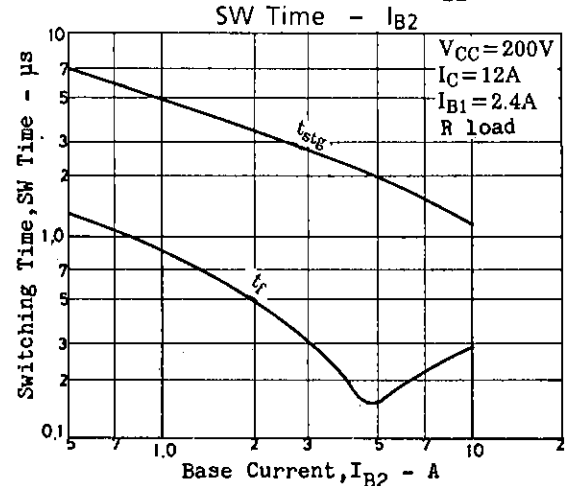
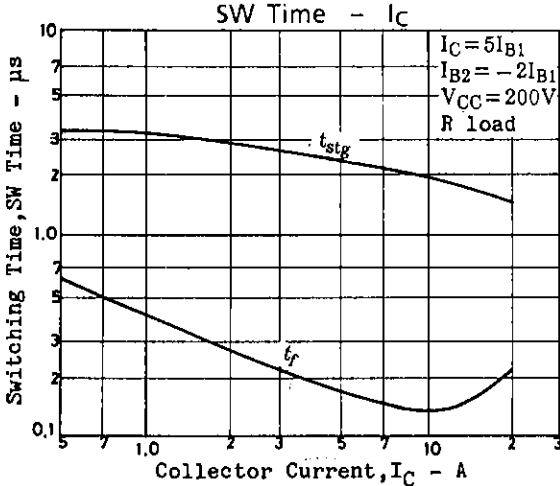
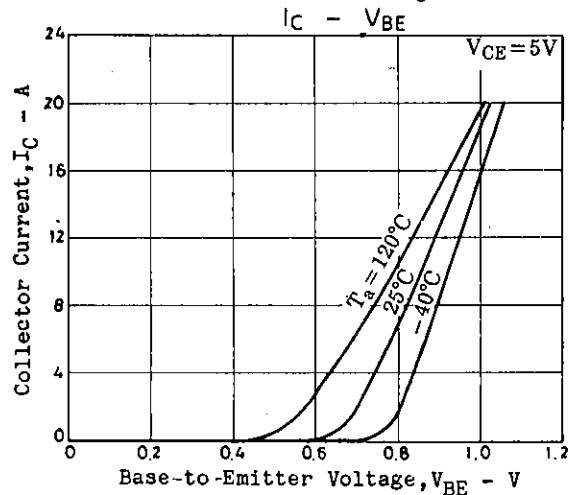
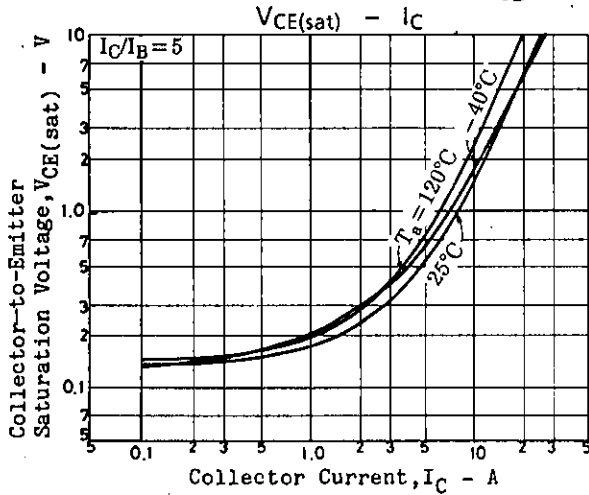
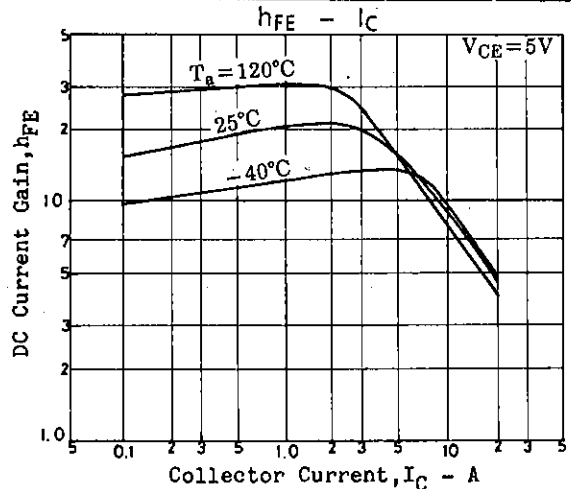
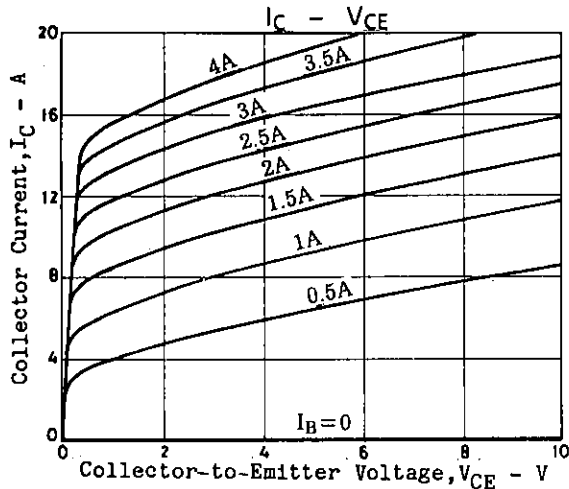
| | | | min | typ | max | unit |
|---------------------------|----------------|--------------------------------------|-----|-----|-----|---------------|
| Collector Cutoff Current | I_{CES} | $V_{CE}=1500\text{V}$ | | | 1.0 | mA |
| Collector Sustain Voltage | $V_{CEO(sus)}$ | $I_C=100\text{mA}, I_B=0$ | 800 | | | V |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=4\text{V}, I_C=0$ | | | 1.0 | mA |
| Collector Cutoff Current | I_{CBO} | $V_{CB}=800\text{V}, I_E=0$ | | | 10 | μA |
| DC Current Gain | $h_{FE}(1)$ | $V_{CE}=5\text{V}, I_C=1.0\text{A}$ | 8 | | 30 | |
| | | $V_{CE}=5\text{V}, I_C=16\text{A}$ | 4 | | 8 | |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C=16\text{A}, I_B=4\text{A}$ | | | 5 | V |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C=16\text{A}, I_B=4\text{A}$ | | | 1.5 | V |
| Storage Time | t_{stg} | $I_C=12\text{A}, I_{B1}=2.4\text{A}$ | | | 3.0 | μs |
| | | $I_{B2}=-4.8\text{A}$ | | | | |
| Fall Time | t_f | $I_C=12\text{A}, I_{B1}=2.4\text{A}$ | | | 0.2 | μs |
| | | $I_{B2}=-4.8\text{A}$ | | | | |

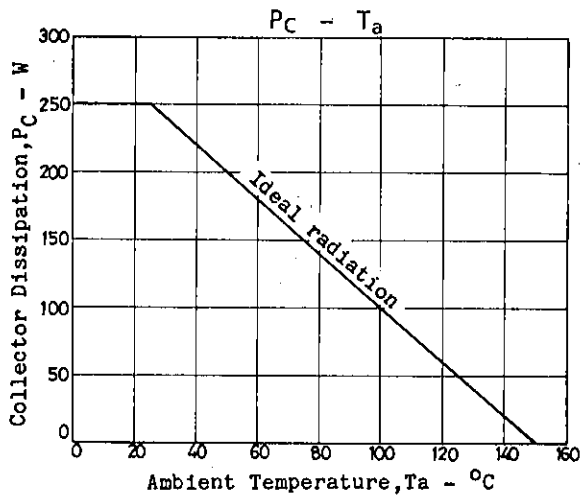
Switching Time Test Circuit



Package Dimensions 2048







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