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| SANYO | No.2425 | 2SD1878 |
| | | NPN Triple Diffused Planar Type Silicon Transistor |

COLOR TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS

Applications

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

Features

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

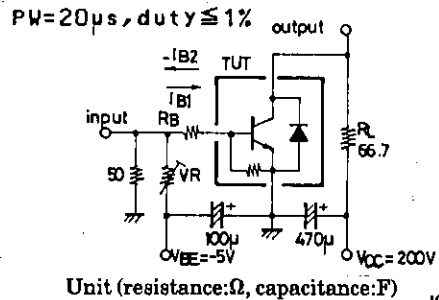
Absolute Maximum Ratings at $T_a=25^\circ C$

| | | | 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 | 5 | A |
| Peak Collector Current | i_{cp} | 20 | A |
| Collector Dissipation | P_C | 60 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ C$ |

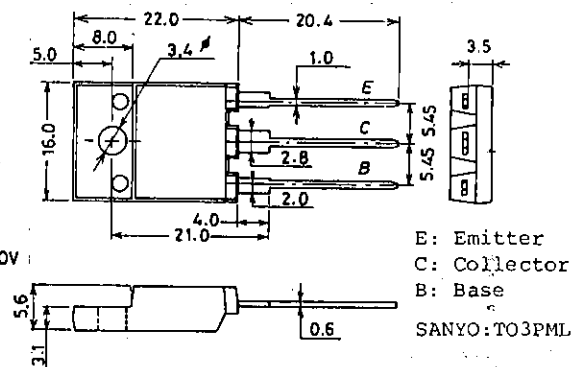
Electrical Characteristics at $T_a=25^\circ C$

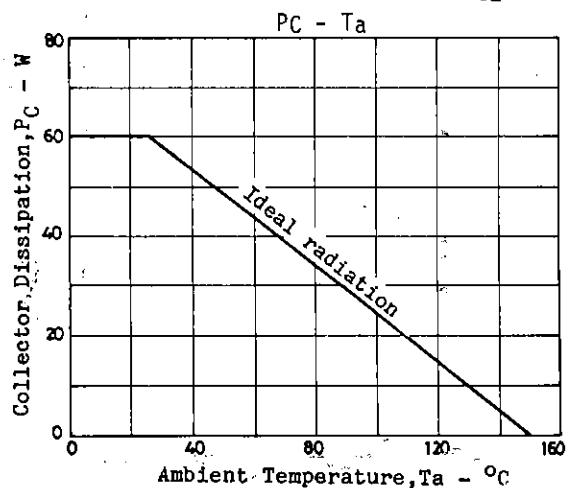
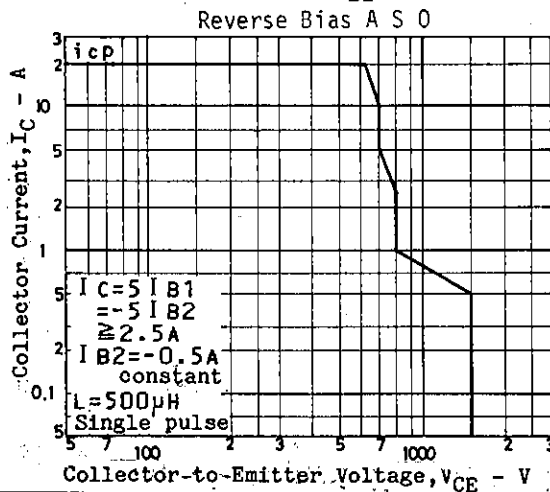
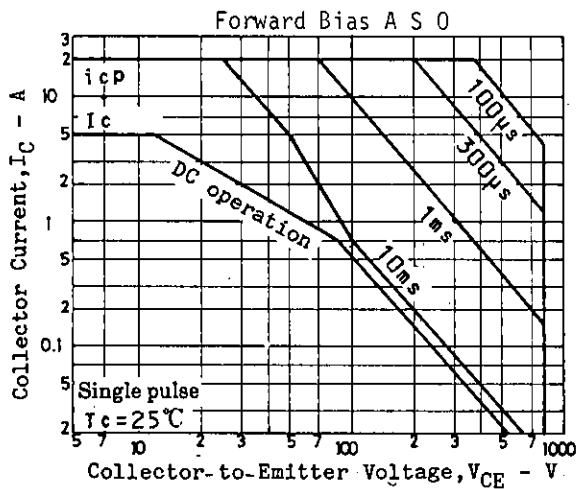
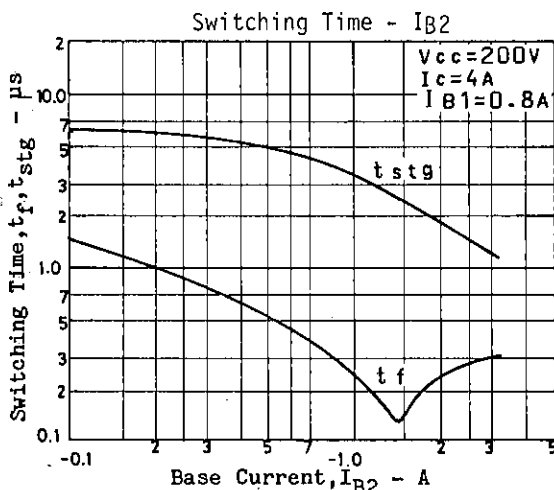
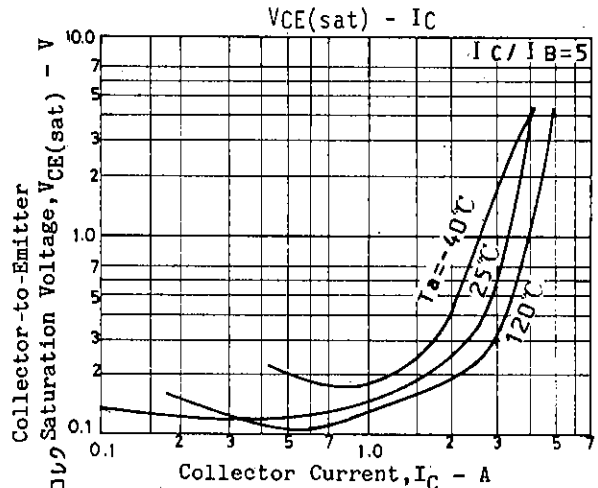
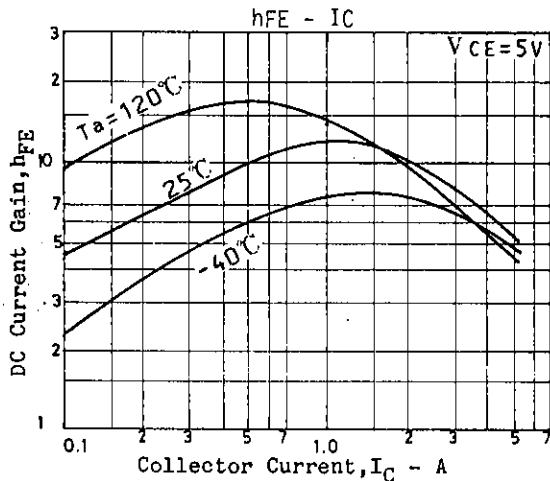
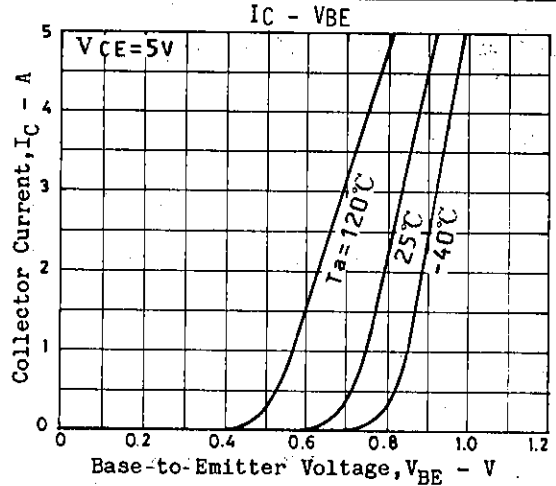
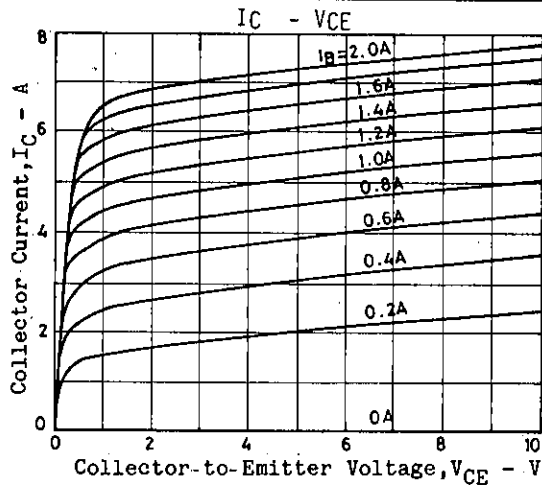
| | | | min | typ | max | unit |
|---------------------------|----------------|------------------------|-----|-----|-----|---------|
| Collector Cutoff Current | I_{CES} | $V_{CE}=1500V$ | | | 1.0 | mA |
| | I_{CBO} | $V_{CB}=800V$ | | | 10 | μA |
| Collector Sustain Voltage | $V_{CEO}(sus)$ | $I_C=100mA, I_B=0$ | 800 | | | V |
| | I_{EBO} | $V_{EB}=4V$ | 40 | | 130 | mA |
| C-E Saturation Voltage | $V_{CE}(sat)$ | $I_C=4A, I_B=0.8A$ | | | 5 | V |
| B-E Saturation Voltage | $V_{BE}(sat)$ | $I_C=4A, I_B=0.8A$ | | | 1.5 | V |
| DC Current Gain | h_{FE1} | $V_{CE}=5V, I_C=1A$ | 8 | | | |
| | h_{FE2} | $V_{CE}=5V, I_C=4A$ | 5 | | 10 | |
| Diode Forward Voltage | V_F | $I_{EC}=5A$ | | | 2.0 | V |
| Fall Time | t_f | $I_C=4A, I_{B1}=0.8A,$ | | 0.1 | 0.3 | μs |
| | | $I_{B2}=-1.6A$ | | | | |

Switching Time Test Circuit



Package Dimensions 2039 (unit:mm)





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