

**2SC3642**

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

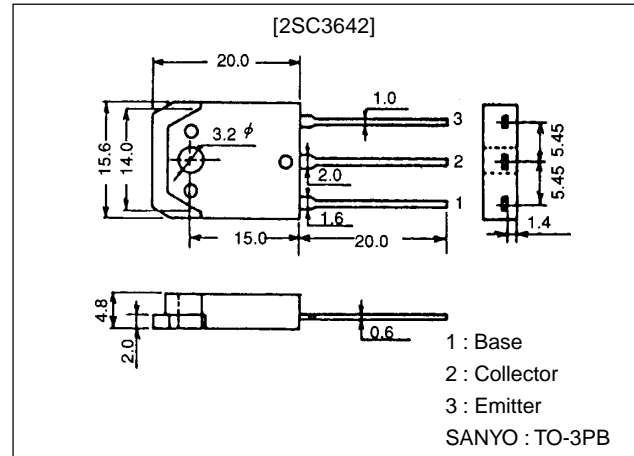
Features

- High reliability (Adoption of HVP process).
- Fast speed.
- High breakdown voltage.
- Adoption of MBIT process.

Package Dimensions

unit:mm

2022A



Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------------------|-------------|------|
| Collector-to-Base Voltage | V_{CBO} | | 1200 | V |
| Collector-to-Emitter Voltage | V_{CEO} | | 800 | V |
| Emitter-to-Base Voltage | V_{EBO} | | 7 | V |
| Collector Current | I_C | | 6 | A |
| Collector Current (Pulse) | I_{CP} | | 12 | A |
| Collector Dissipation | P_C | $T_c=25^\circ\text{C}$ | 100 | W |
| Junction Temperature | T_j | | 150 | °C |
| Storage Temperature | T_{stg} | | -55 to +150 | °C |

Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|----------------|--|---------|-----|-----|---------------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CBO} | $V_{CB}=800\text{V}, I_E=0$ | | | 10 | μA |
| | I_{CES} | $V_{CE}=1200\text{V}, R_{BE}=0$ | | | 0.5 | mA |
| Collector-to-Emitter Sustain Voltage | $V_{CEO(sus)}$ | $I_C=100\text{mA}, I_B=0$ | 800 | | | V |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=5\text{V}, I_C=0$ | | | 1 | mA |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=4\text{A}, I_B=0.8\text{A}$ | | | 5 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=4\text{A}, I_B=0.8\text{A}$ | | | 1.5 | V |
| DC Current Gain | h_{FE} | $V_{CE}=5\text{V}, I_C=0.8\text{A}$ | 8 | | | |
| Storage Time | t_{stg} | $I_C=4\text{A}, I_{B1}=0.8\text{A}, I_{B2}=-1.6\text{A}$ | | | 3.0 | μs |
| Fall Time | t_f | $I_C=4\text{A}, I_{B1}=0.8\text{A}, I_{B2}=-1.6\text{A}$ | | 0.1 | 0.2 | μs |

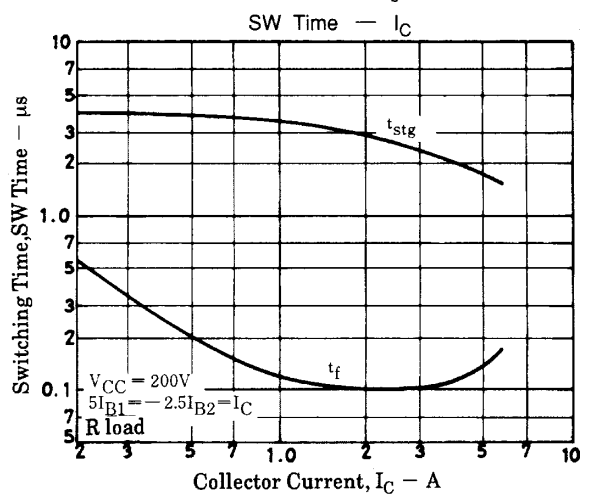
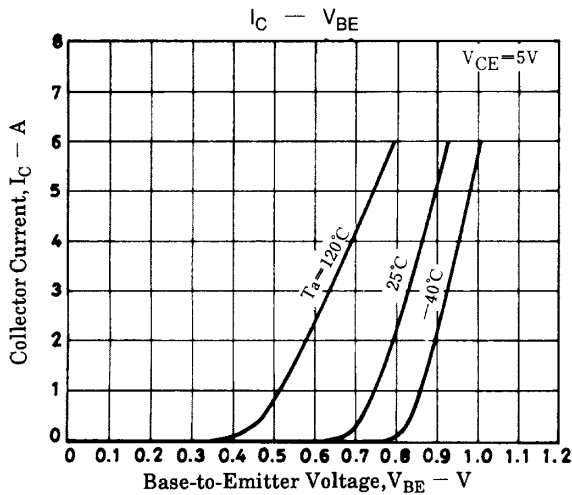
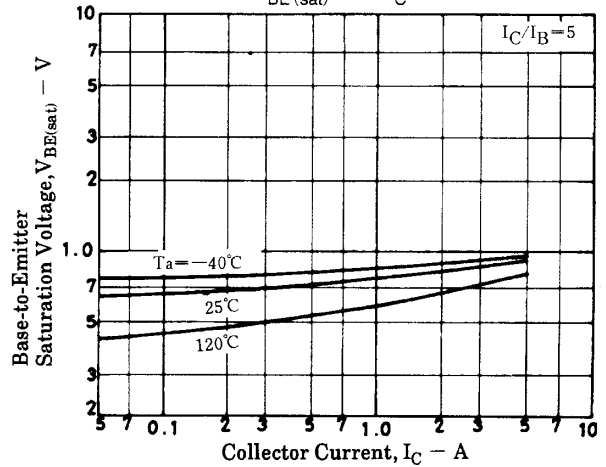
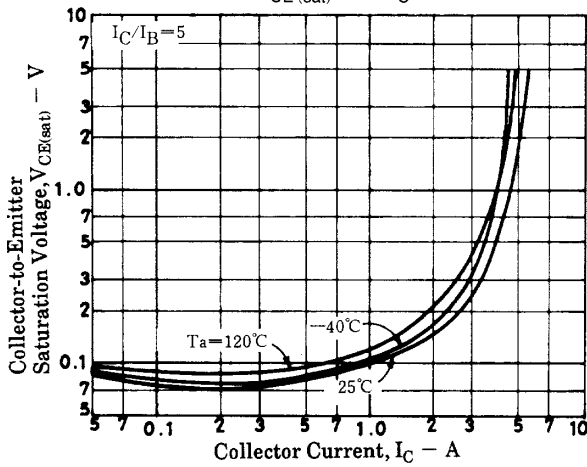
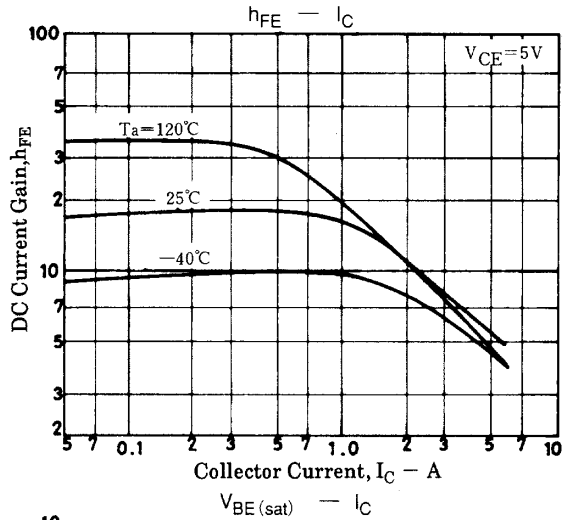
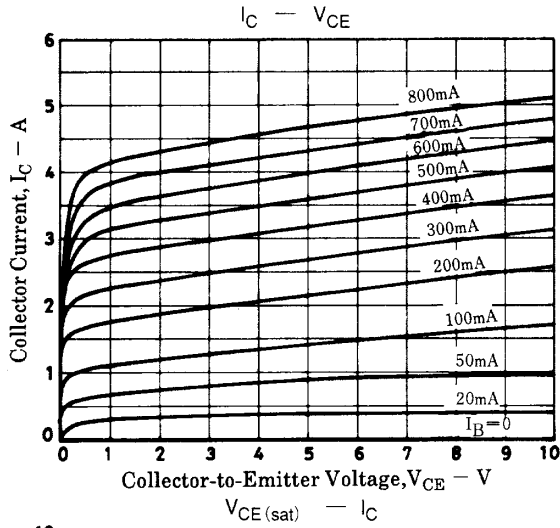
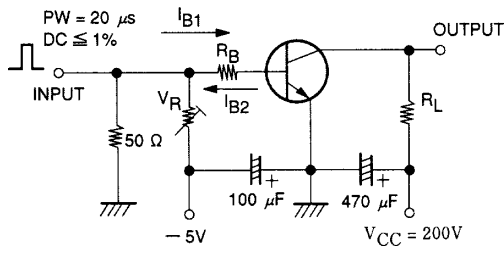
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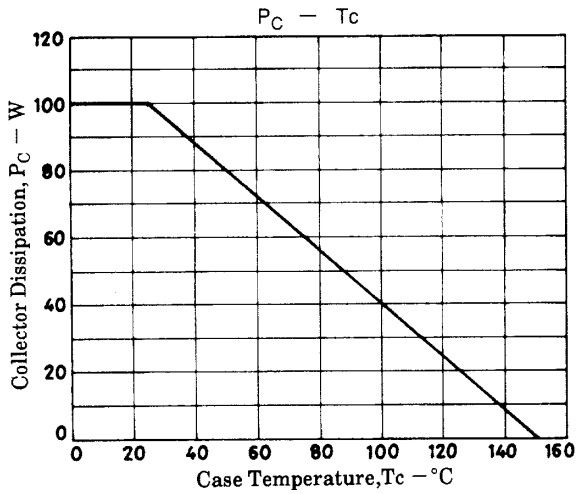
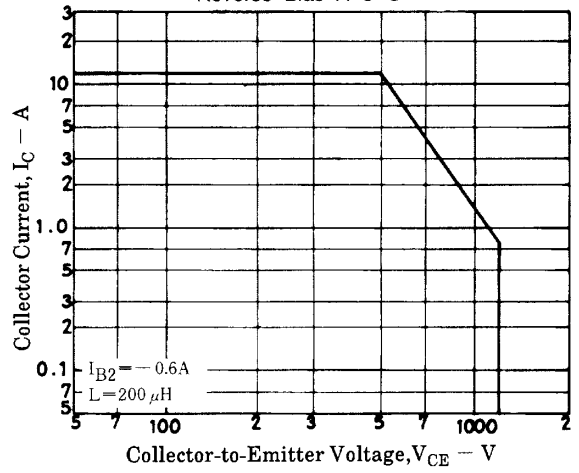
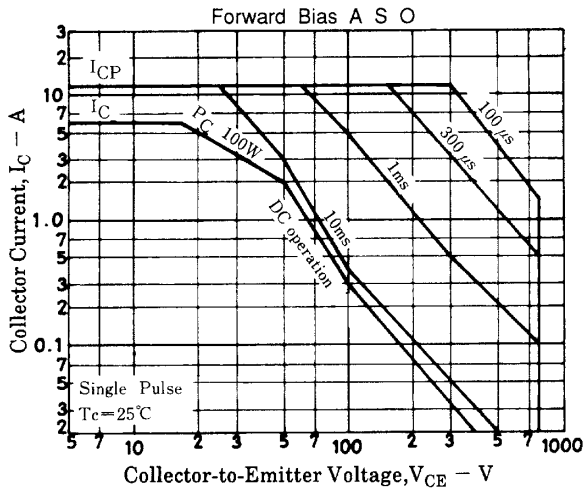
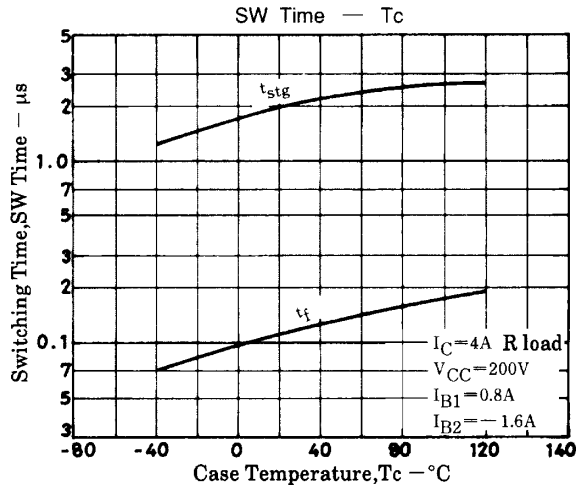
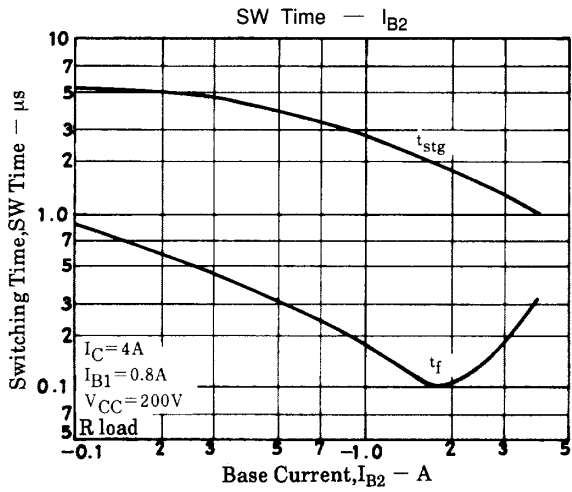
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Switching Time Test Circuit



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