

**2SC4450**

1500V/5mA High-Voltage Amplifier, High-Voltage Switching Applications

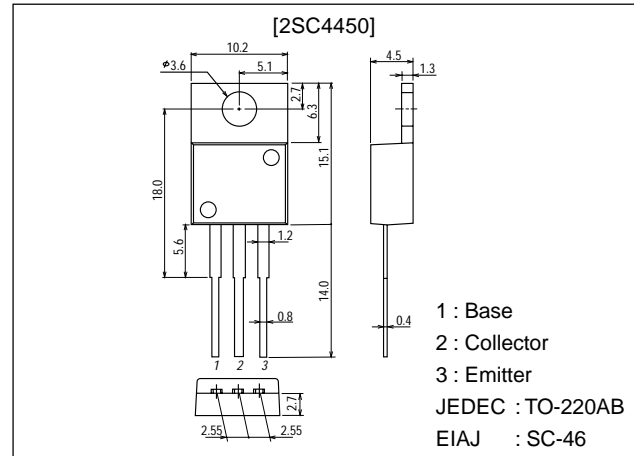
Features

- High breakdown voltage.
- Small C_{ob} .
- Wide ASO.
- High reliability (Adoption of HVP process).

Package Dimensions

unit:mm

2010C



Specifications

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------|-------------|------------------|
| Collector-to-Base Voltage | V_{CBO} | | 1500 | V |
| Collector-to-Emitter Voltage | V_{CEO} | | 1500 | V |
| Emitter-to-Base Voltage | V_{EBO} | | 5 | V |
| Collector Current | I_C | | 5 | mA |
| Collector Current (Pulse) | I_{CP} | | 15 | mA |
| Collector Dissipation | P_C | | 1.75 | 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 | Conditions | Ratings | | | Unit |
|---|---------------|--|---------|-----|-----|---------------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CBO} | $V_{CB}=1500\text{V}, I_E=0$ | | | 1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=4\text{V}, I_C=0$ | | | 1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=5\text{V}, I_C=200\mu\text{A}$ | 10 | | 60 | |
| Gain-Bandwidth Product | f_T | $V_{CE}=10\text{V}, I_C=200\mu\text{A}$ | | 6 | | MHz |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500\mu\text{A}, I_B=100\mu\text{A}$ | | | 5 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=500\mu\text{A}, I_B=100\mu\text{A}$ | | | 2 | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=10\mu\text{A}, I_E=0$ | 1500 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=100\mu\text{A}, R_{BE}=\infty$ | 1500 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=10\mu\text{A}, I_C=0$ | 5 | | | V |
| Output Capacitance | C_{ob} | $V_{CB}=100\text{V}, f=1\text{MHz}$ | | 1.5 | | pF |

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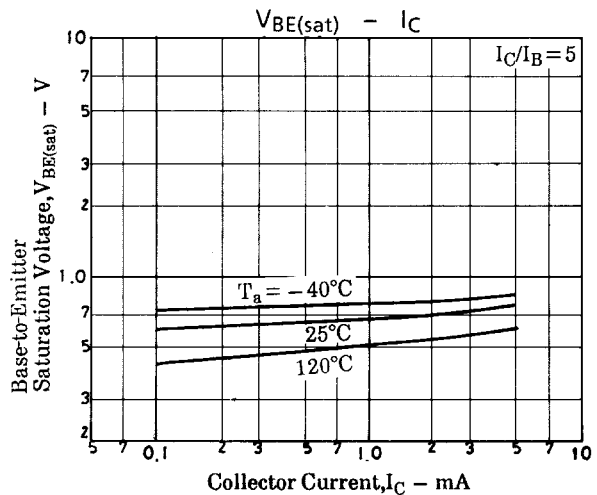
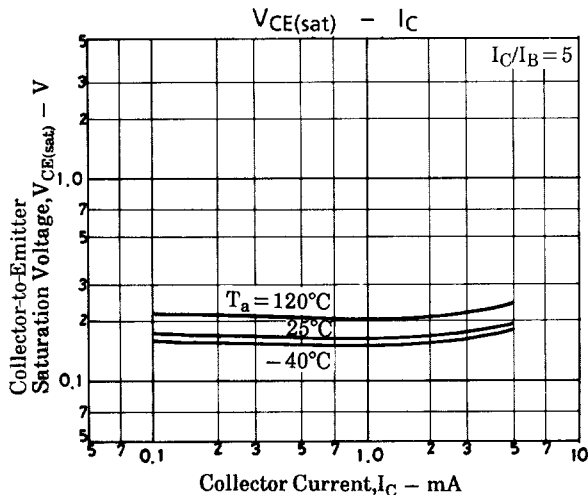
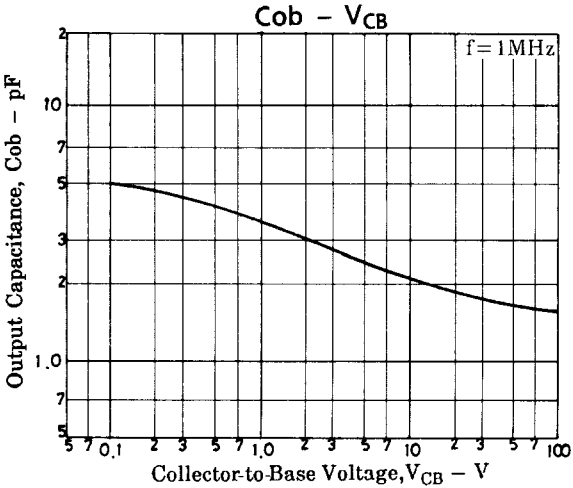
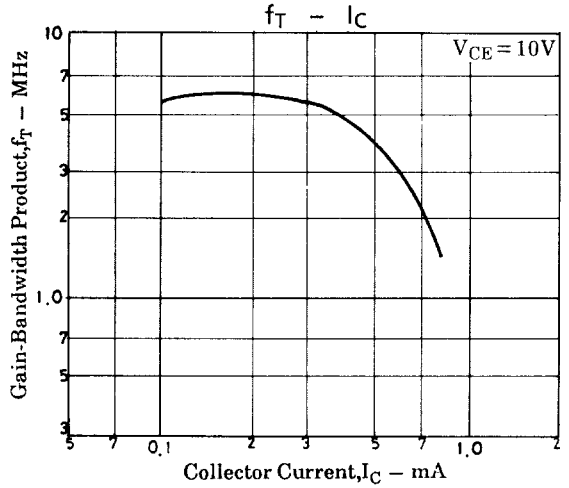
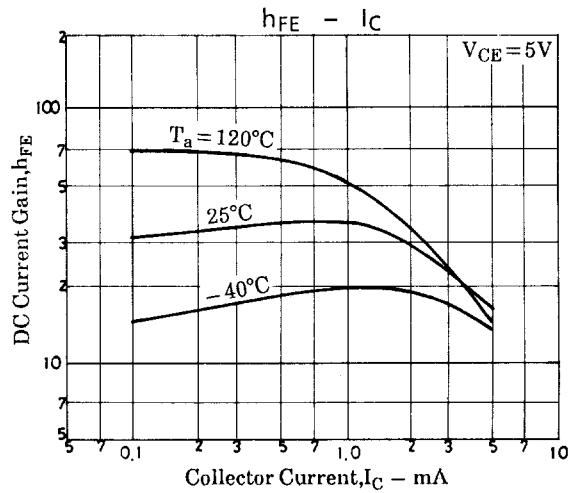
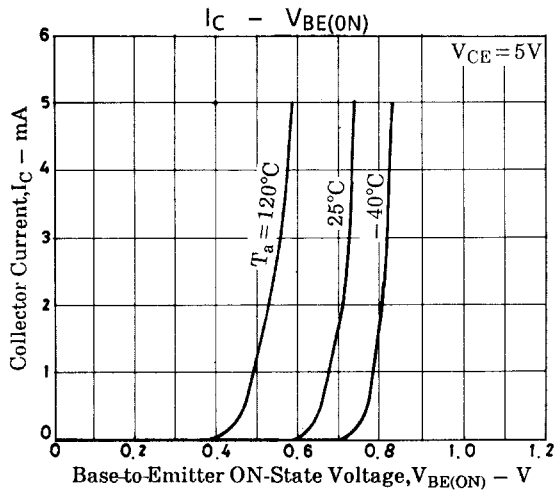
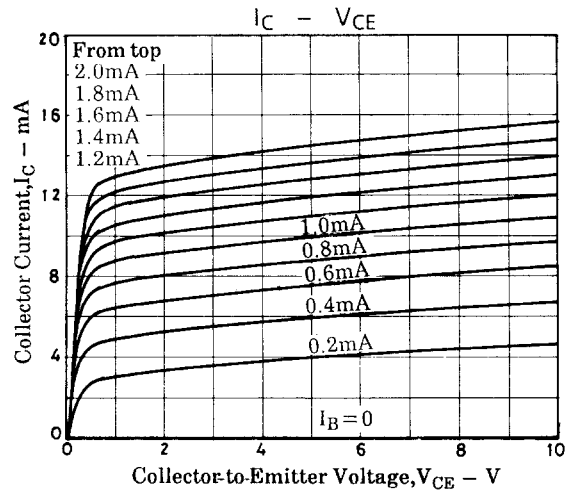
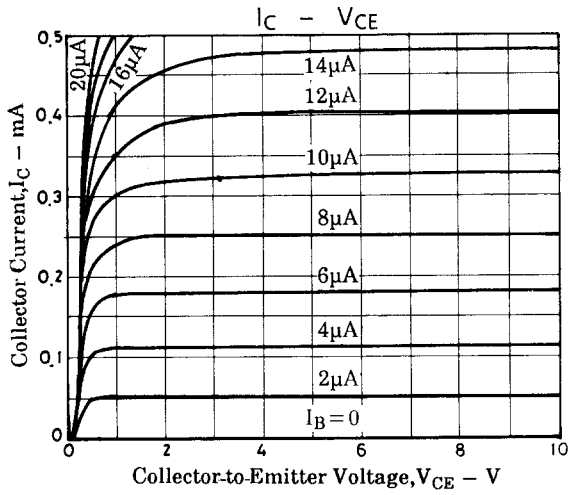
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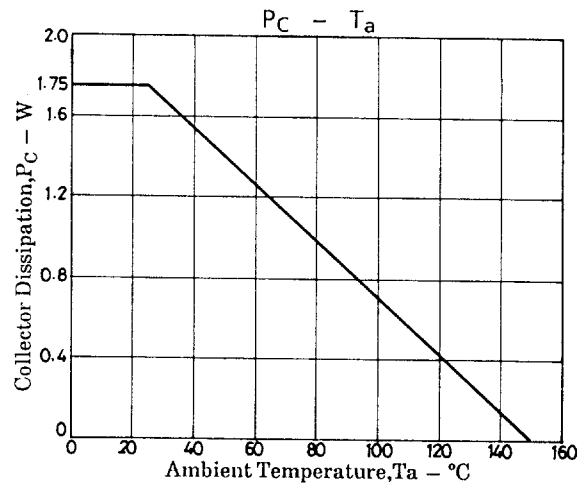
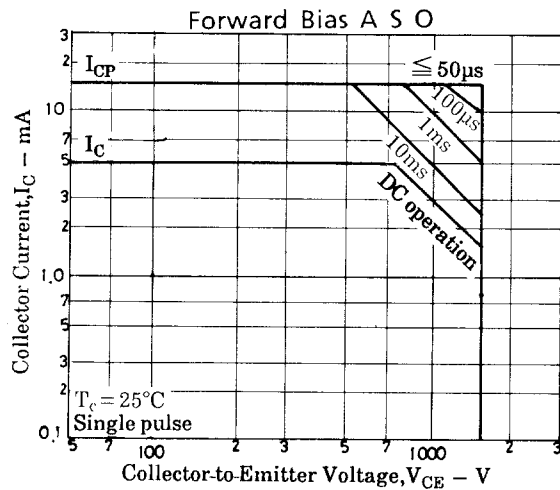
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