

**2SC4631**

900V/300mA High-Voltage Amplifier, High-Voltage Switching Applications

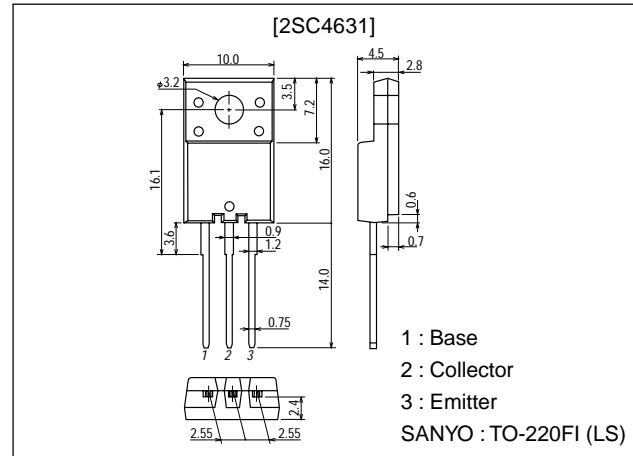
Features

- High breakdown voltage (V_{CE0} min=900V).
- Small Cob (typical Cob=5.0pF).
- Full-isolation package.
- High reliability (Adoption of HVP process).

Package Dimensions

unit:mm

2079B



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} | | 900 | V |
| Emitter-to-Base Voltage | V_{EBO} | | 5 | V |
| Collector Current | I_C | | 300 | mA |
| Collector Current (Pulse) | I_{CP} | | 1 | A |
| Collector Dissipation | P_C | | 2 | 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} | $V_{CB}=900\text{V}, I_E=0$ | | | 10 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=4\text{V}, I_C=0$ | | | 10 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=5\text{V}, I_C=30\text{mA}$ | 30 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE}=10\text{V}, I_C=30\text{mA}$ | | 6 | | MHz |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=60\text{mA}, I_B=12\text{mA}$ | | | 5 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=60\text{mA}, I_B=12\text{mA}$ | | | 2 | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=1\text{mA}, I_E=0$ | 1500 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=1\text{mA}, R_{BE}=\infty$ | 900 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=1\text{mA}, I_C=0$ | 5 | | | V |

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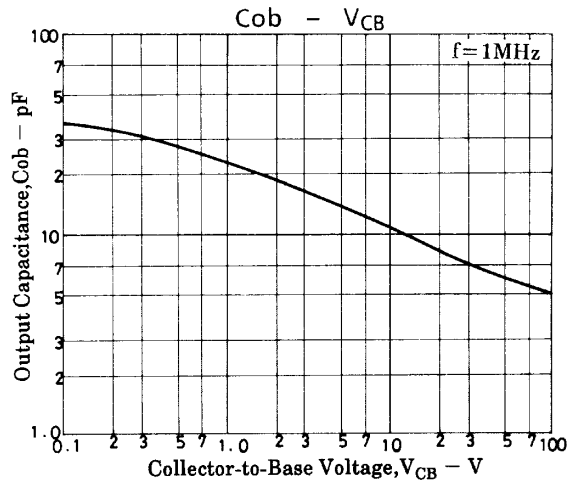
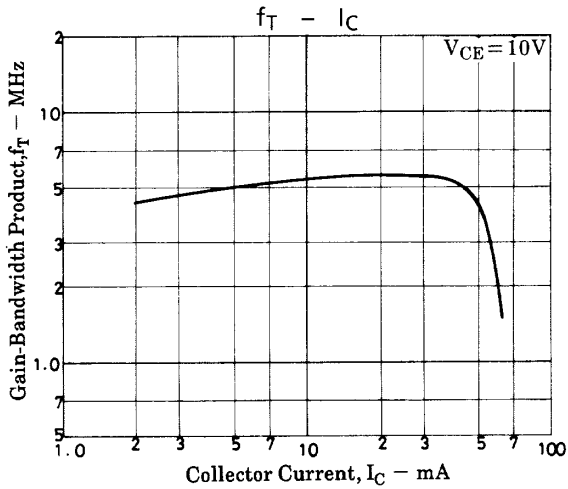
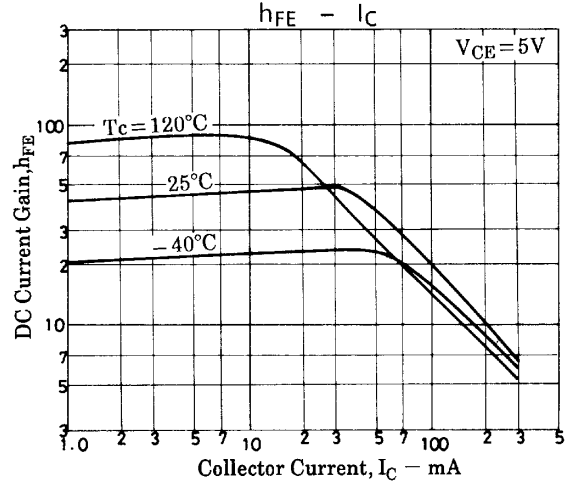
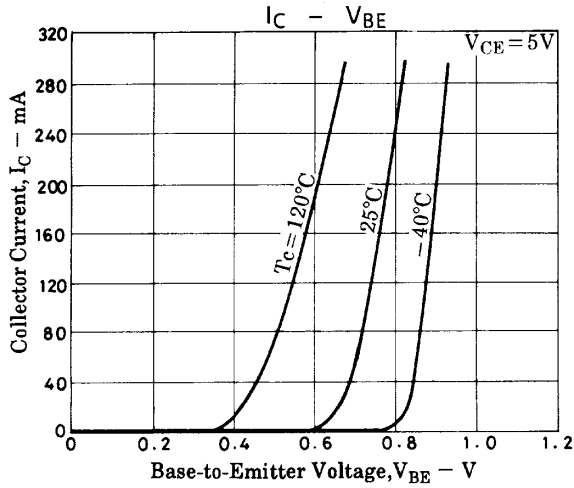
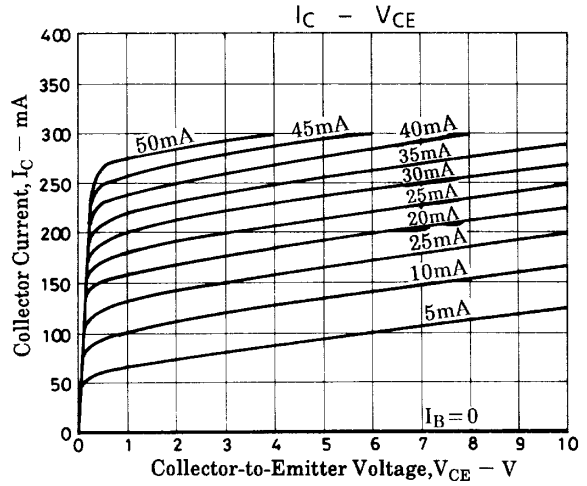
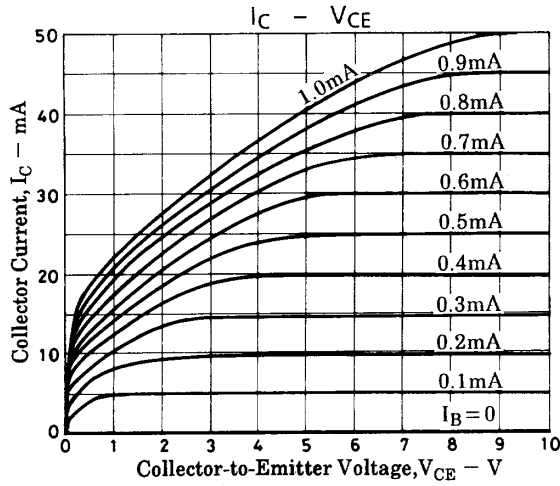
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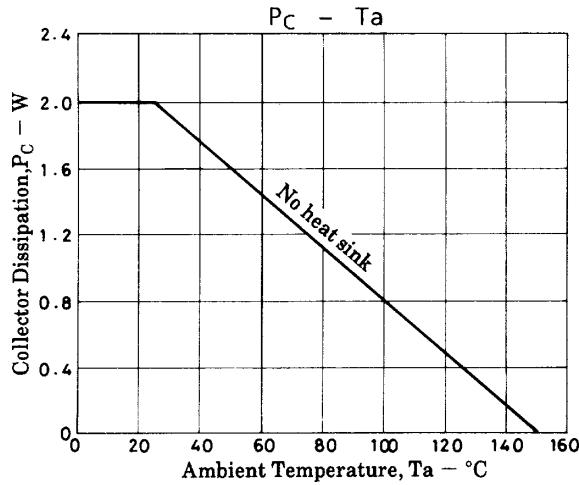
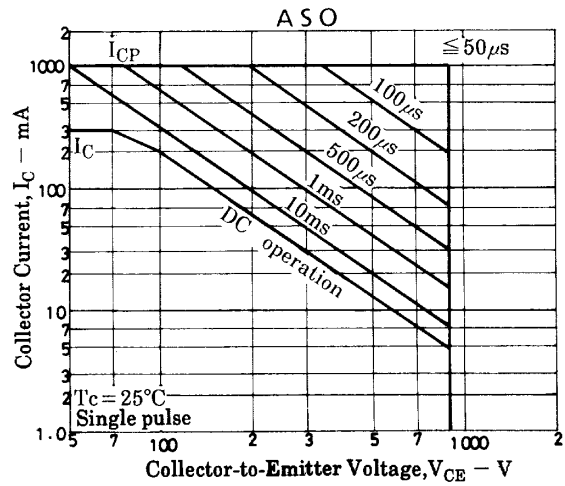
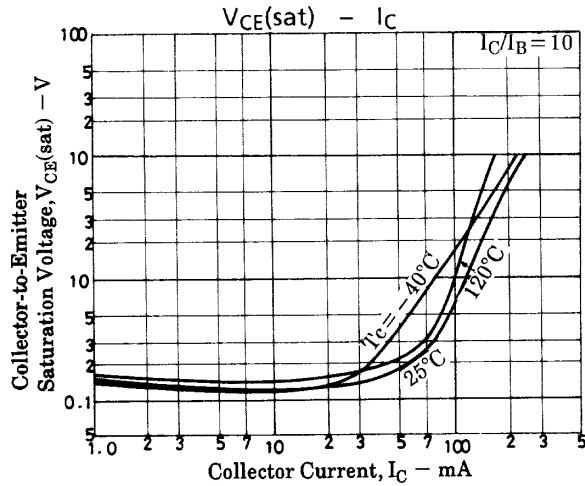
11599HA (KT)/80296YK (KOTO) TA-0465, AX-7506, 8-6922 No.3700-1/3

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| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------|--------|-------------------------------|---------|-----|------|------|
| | | | min | typ | max | |
| Output Capacitance | Cob | V _{CB} =100V, f=1MHz | | 5.0 | | pF |
| Thermal Resistance | Rthj-c | Junction - case | | | 6.25 | °C/W |



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