

**2SC4631**

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

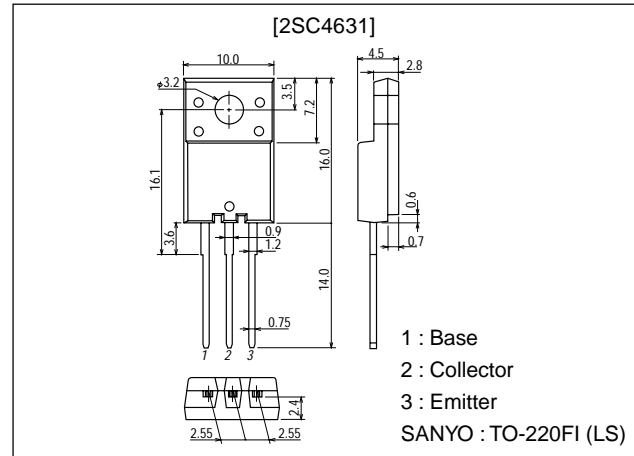
### Features

- 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	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			10	$\mu\text{A}$
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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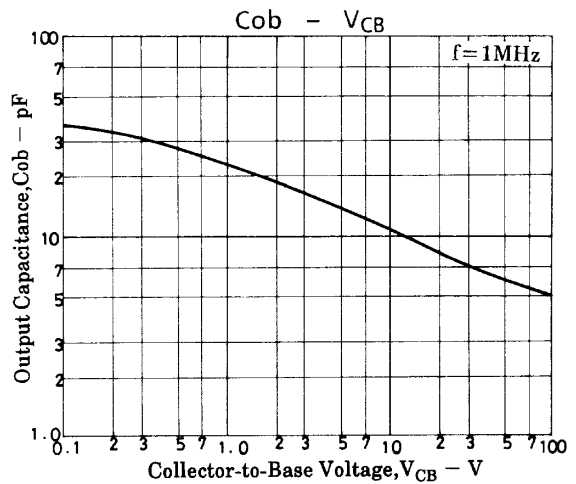
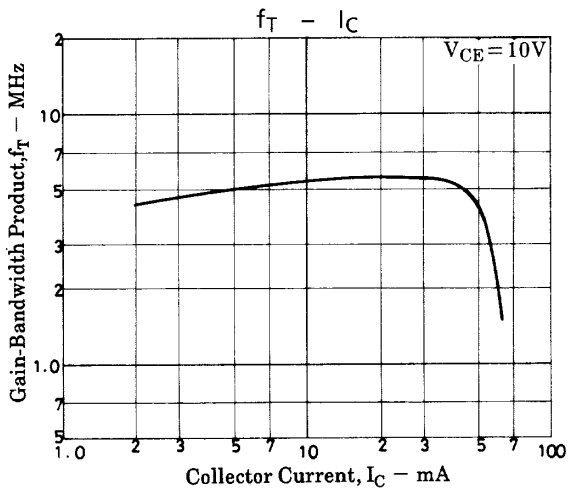
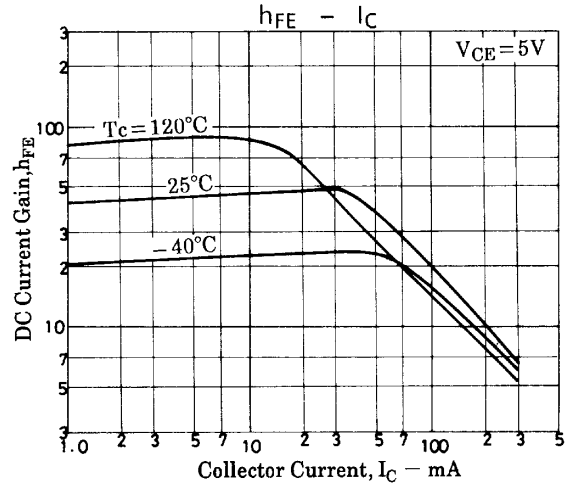
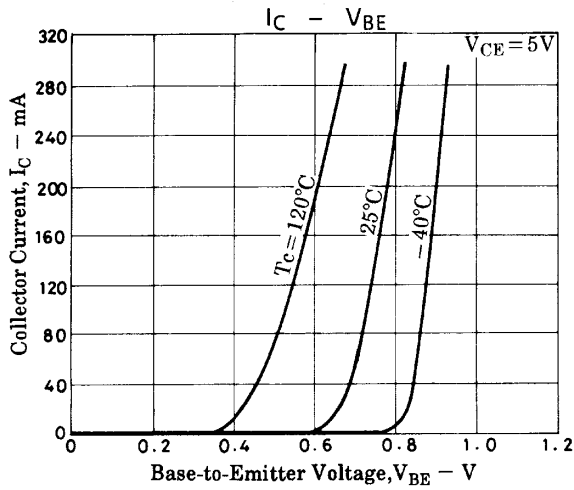
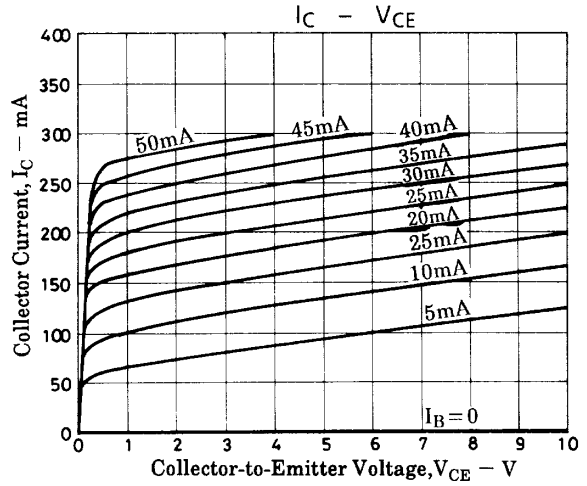
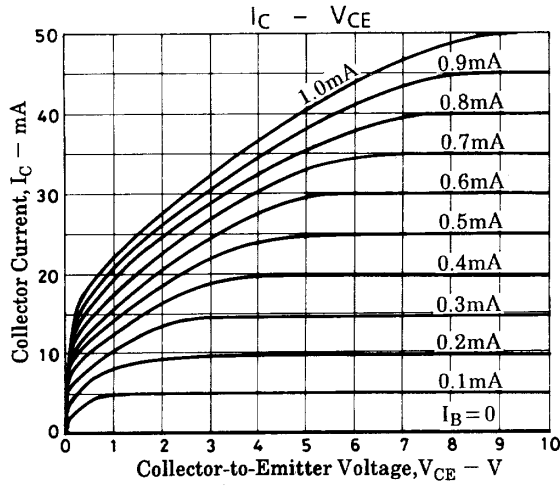
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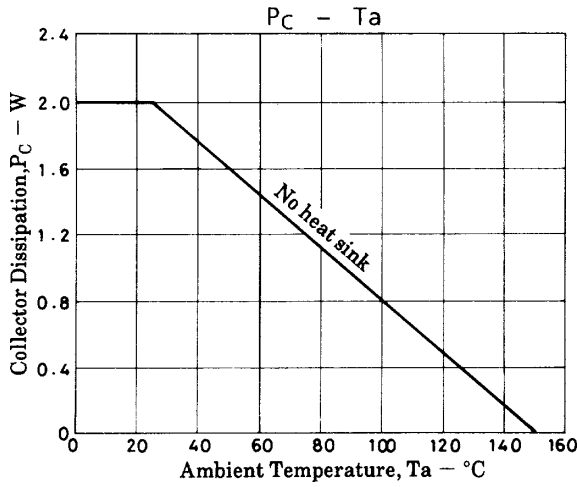
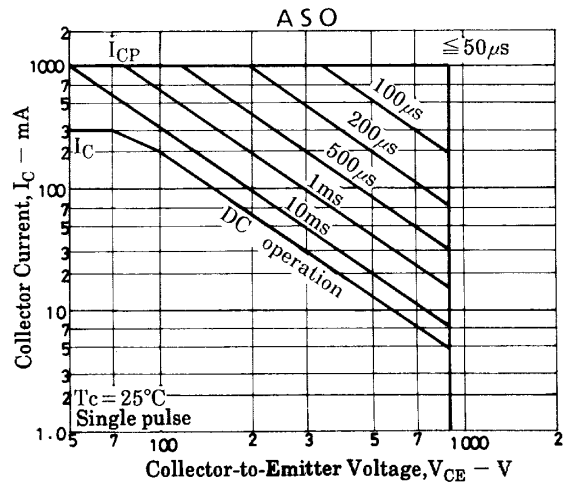
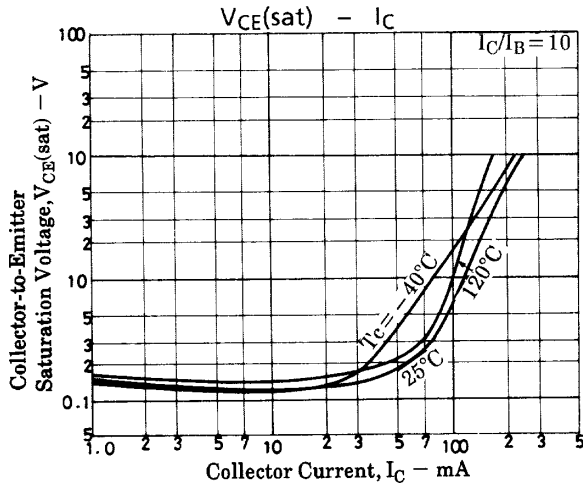
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11599HA (KT)/80296YK (KOTO) TA-0465, AX-7506, 8-6922 No.3700-1/3

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





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