

**2SC4493**

## High-Voltage Amplifier, High-Voltage Switching Applications

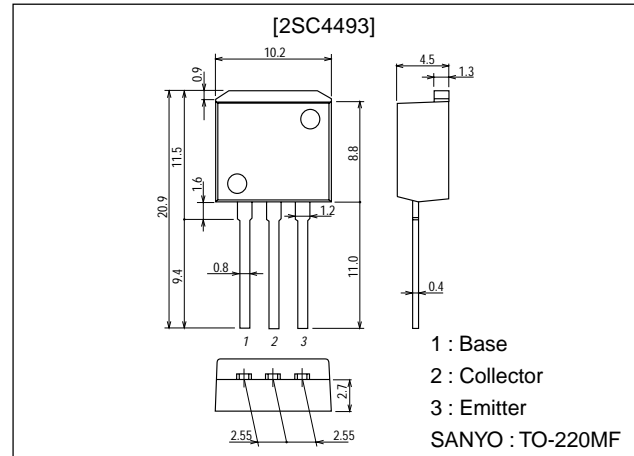
### Features

- High breakdown voltage.
- Small  $C_{ob}$ .
- High reliability (Adoption of HVP process).
- Intended for high-density mounting (Suitable for sets whose height is restricted).

### Package Dimensions

unit:mm

2049C



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		800	V
Collector-to-Emitter Voltage	$V_{CE0}$		800	V
Emitter-to-Base Voltage	$V_{EBO}$		7	V
Collector Current	$I_C$		20	mA
Collector Current (Pulse)	$I_{CP}$		60	mA
Collector Dissipation	$P_C$		1.65	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	$I_{CB0}$	$V_{CB}=800\text{V}, I_E=0$			1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			1	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=5\text{V}, I_C=2\text{mA}$	20		50	
	$h_{FE2}$	$V_{CE}=5\text{V}, I_C=10\text{mA}$	10			
Gain-Bandwidth Product	$f_T$	$V_{CE}=10\text{V}, I_C=2\text{mA}$		40		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=2\text{mA}$			1	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=2\text{mA}$			1.5	V

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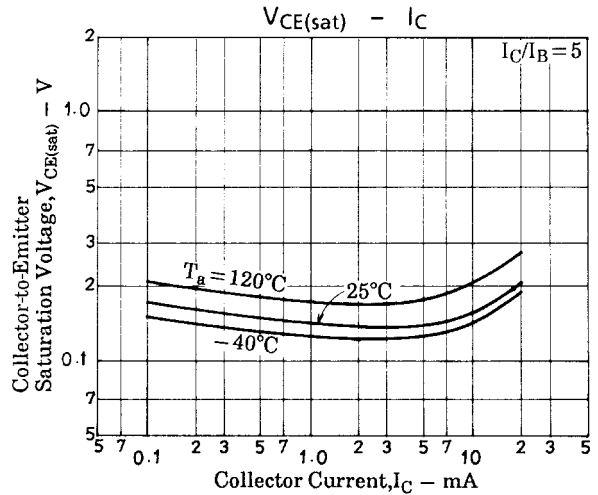
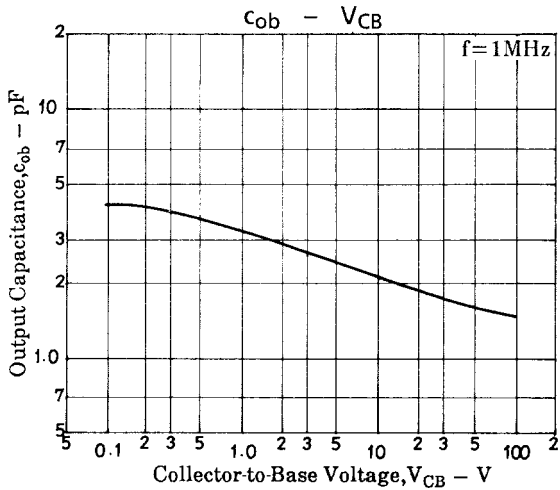
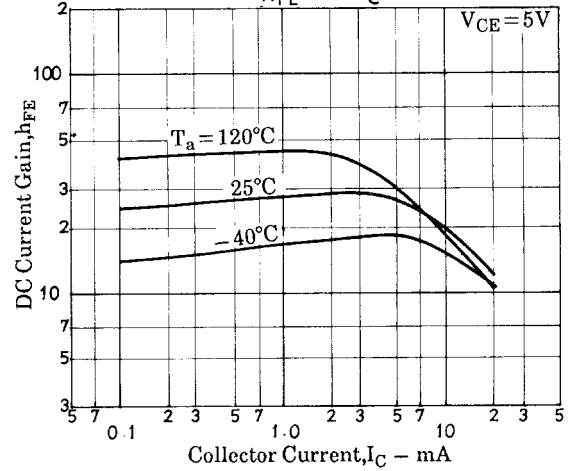
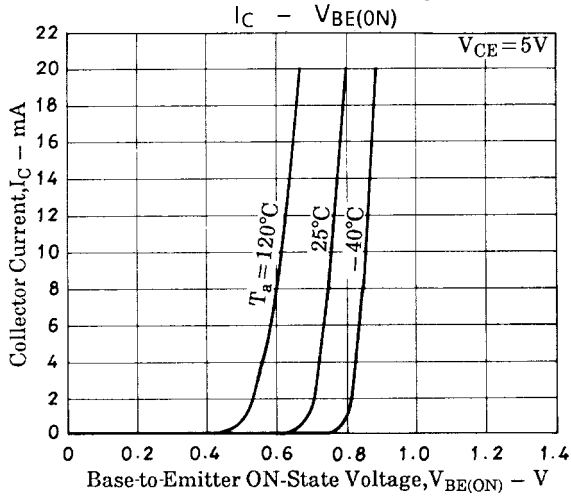
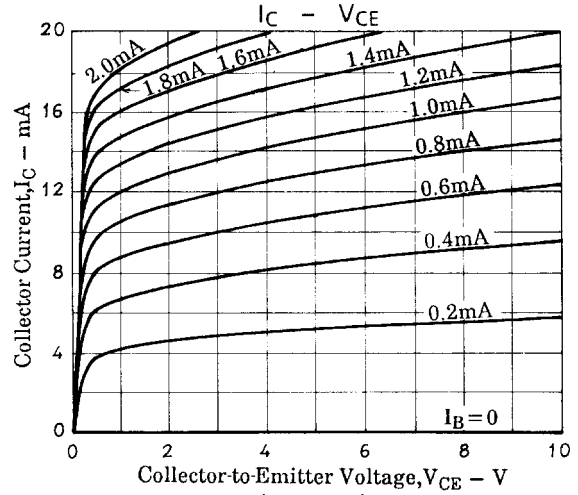
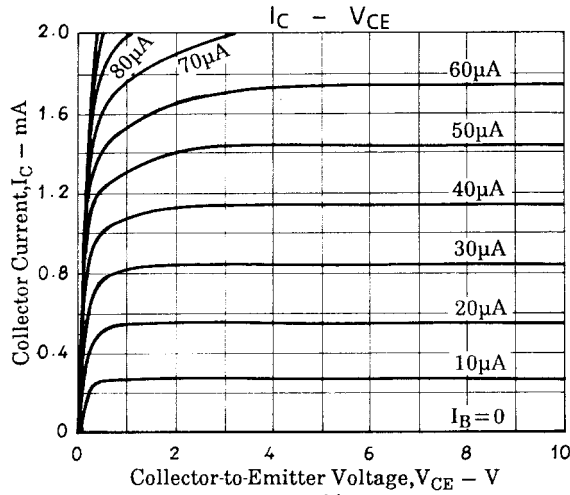
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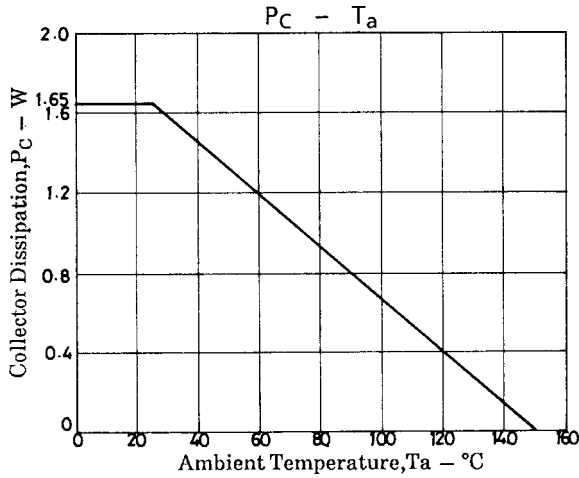
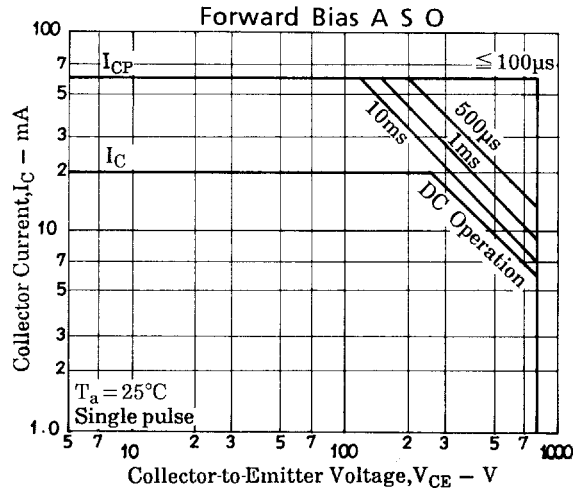
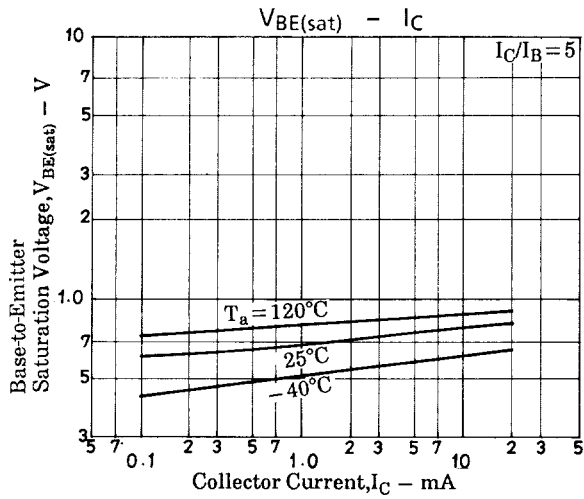
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	800			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	800			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	7			V
Output Capacitance	$C_{ob}$	$V_{CB}=100V, f=1MHz$		1.6		pF



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