

**2SC4637**

## 1800V/15mA High-Voltage Amplifier, High-Voltage Switching Applications

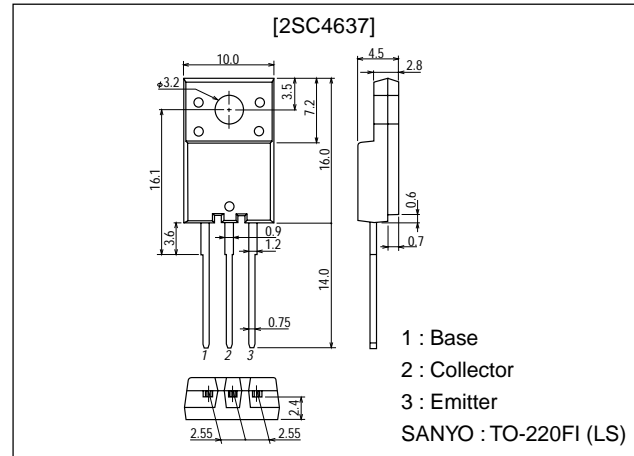
### Features

- High breakdown voltage ( $V_{CE0}$  min=1800V).
- Small Cob (typical Cob=1.8pF).
- 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	$V_{CBO}$		2000	V
Collector-to-Emitter Voltage	$V_{CEO}$		1800	V
Emitter-to-Base Voltage	$V_{EBO}$		5	V
Collector Current	$I_C$		15	mA
Collector Current (Pulse)	$I_{CP}$		50	mA
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	$I_{CBO}$	$V_{CB}=1800\text{V}, I_E=0$			1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=300\mu\text{A}$	10		60	
Gain-Bandwidth Product	$f_T$	$V_{CE}=10\text{V}, I_C=300\mu\text{A}$		6		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=600\mu\text{A}, I_B=120\mu\text{A}$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=600\mu\text{A}, I_B=120\mu\text{A}$			2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	2000			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=100\mu\text{A}, R_{BE}=\infty$	1800			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	5			V

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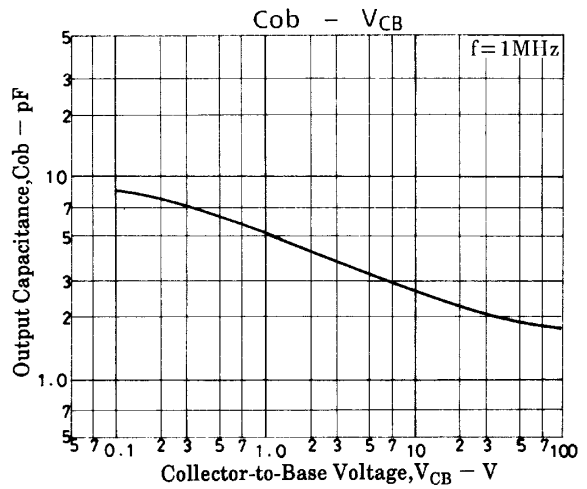
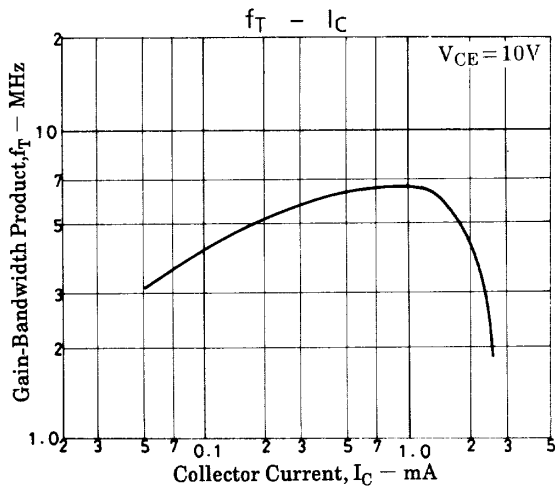
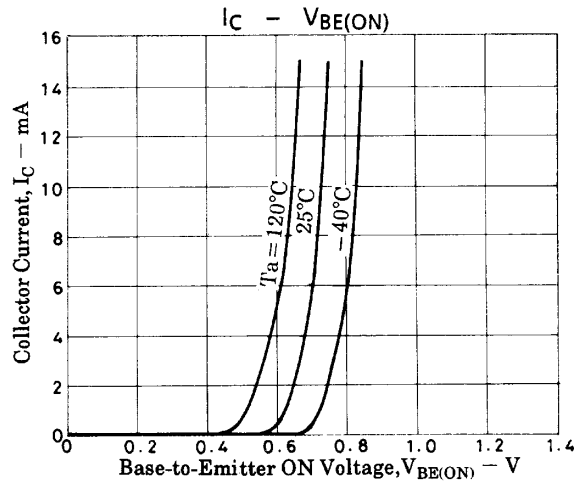
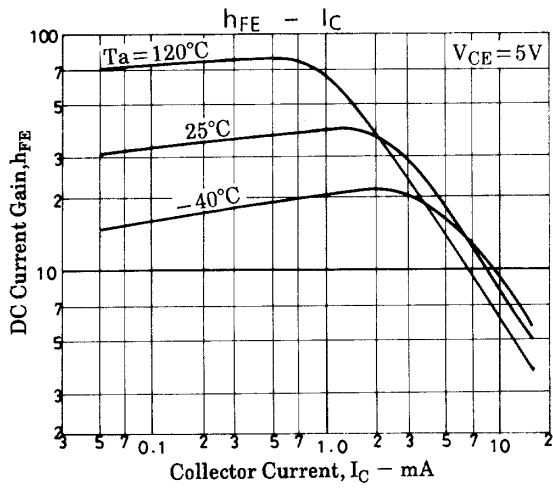
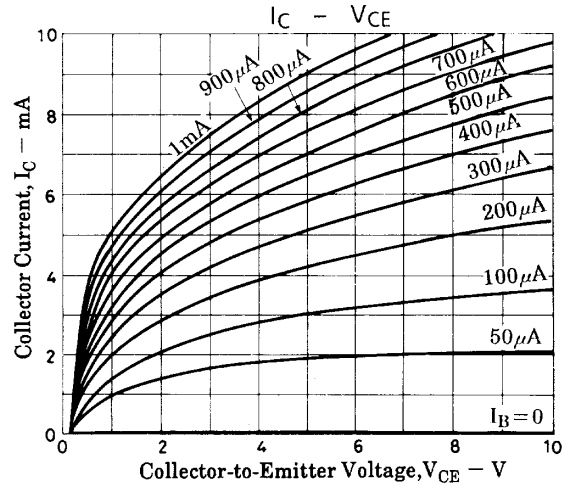
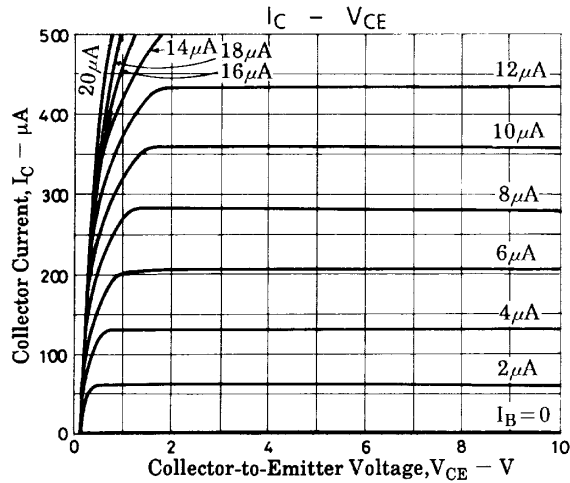
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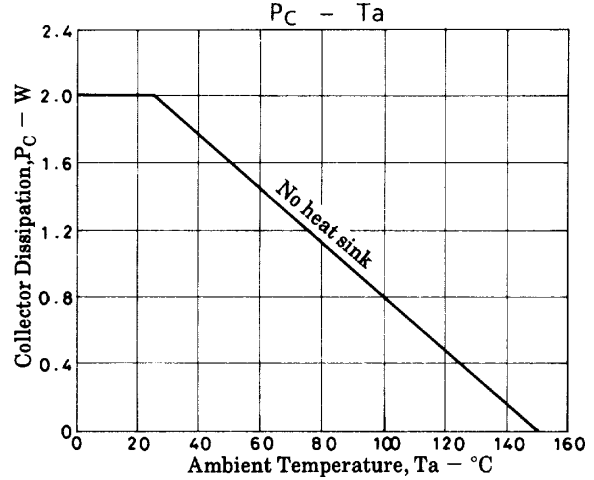
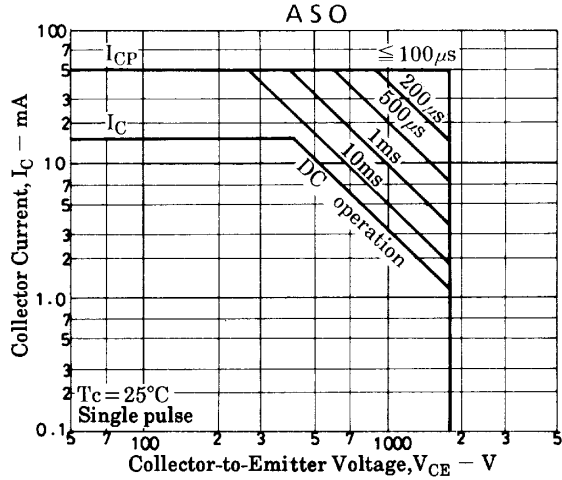
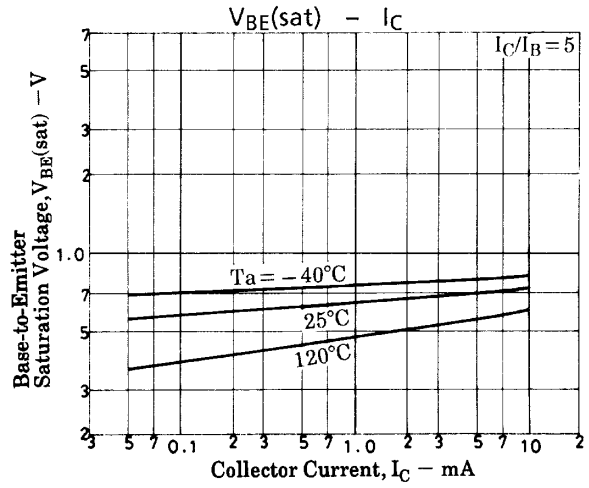
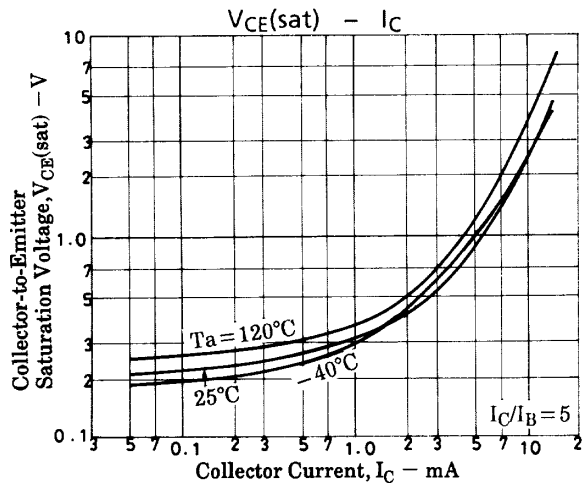
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11599HA (KT)/80296YK (KOTO) TA-0465, AX-7506, 8-6928 No.3706-1/3

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	Cob	V <sub>CB</sub> =100V, f=1MHz		1.8		pF
Thermal Resistance	Rth-j-c	Junction - case			8.3	°C/W





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