

**2SC4637**

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

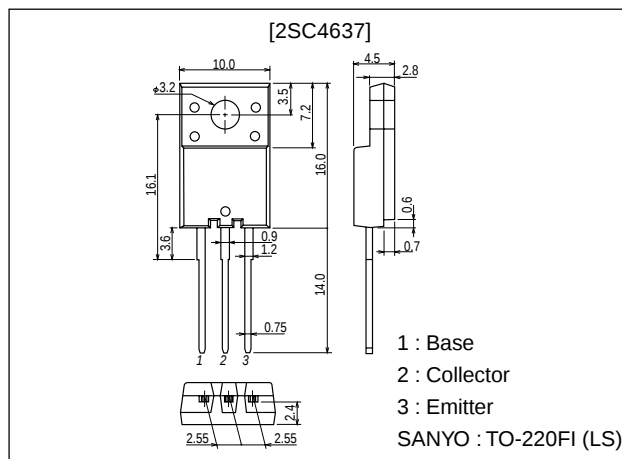
Features

- High breakdown voltage (V_{CEO} 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	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			1	μA
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}, I_C=300\mu\text{A}$	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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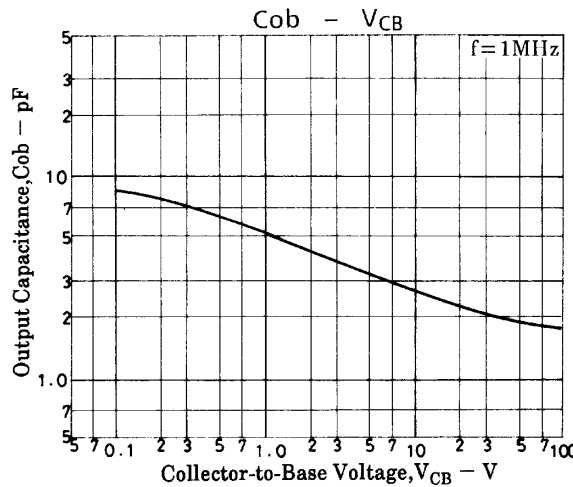
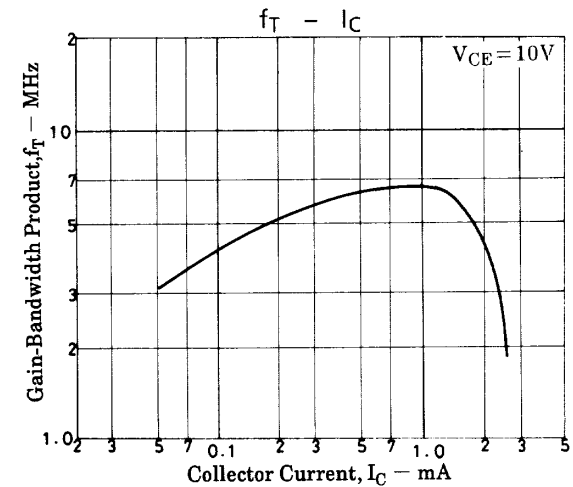
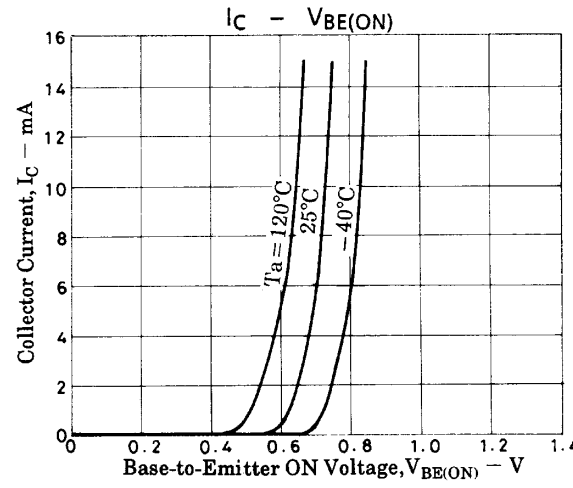
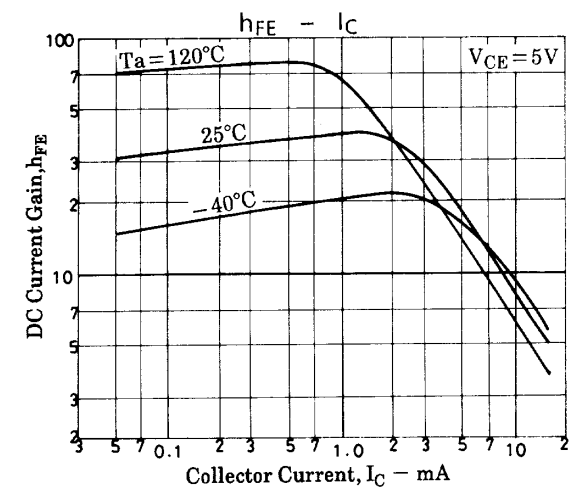
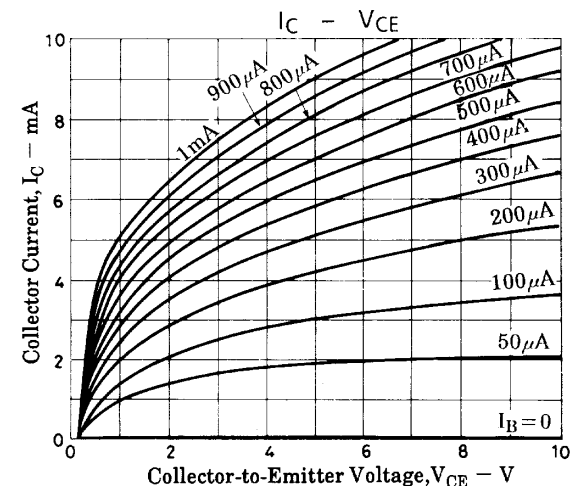
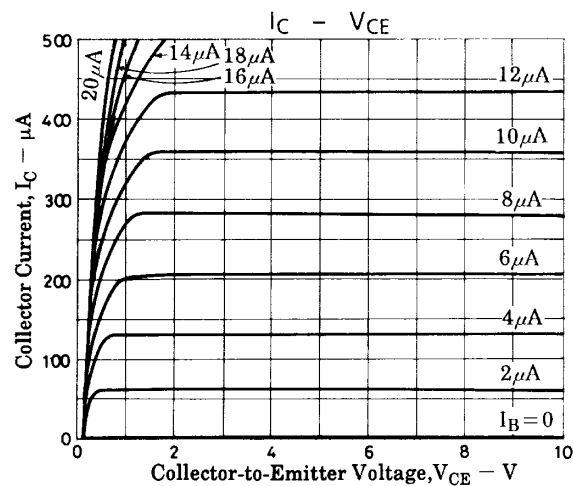
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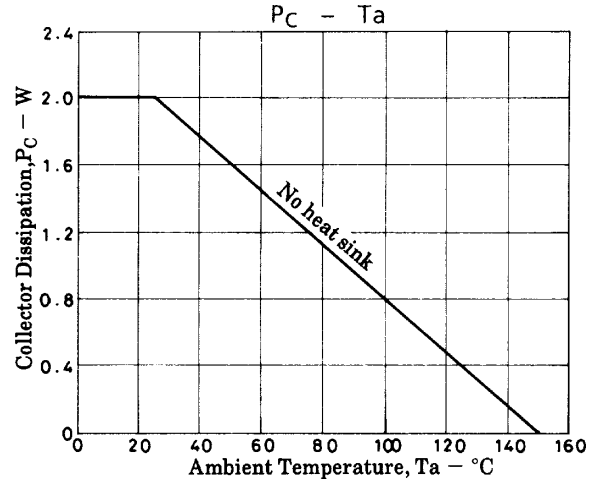
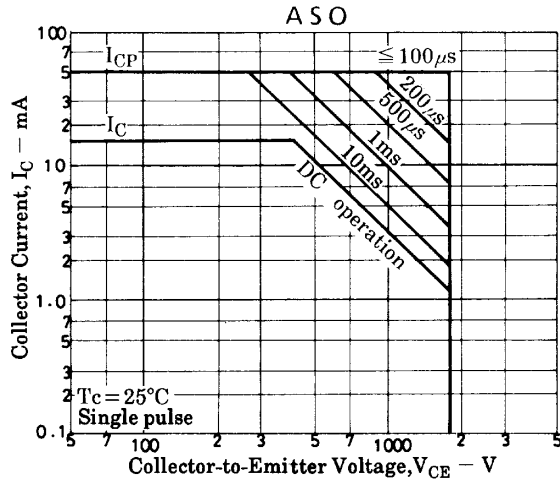
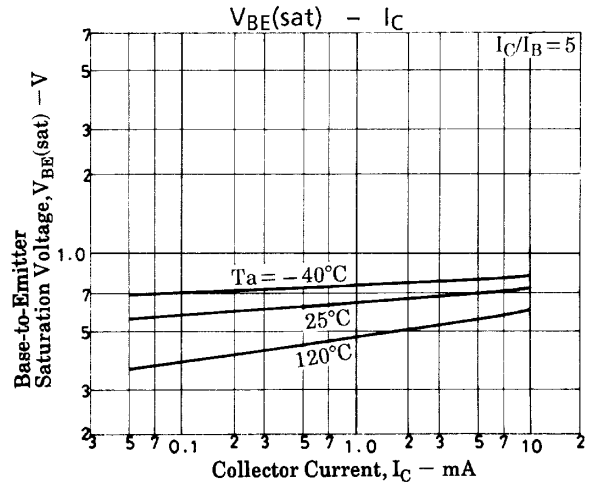
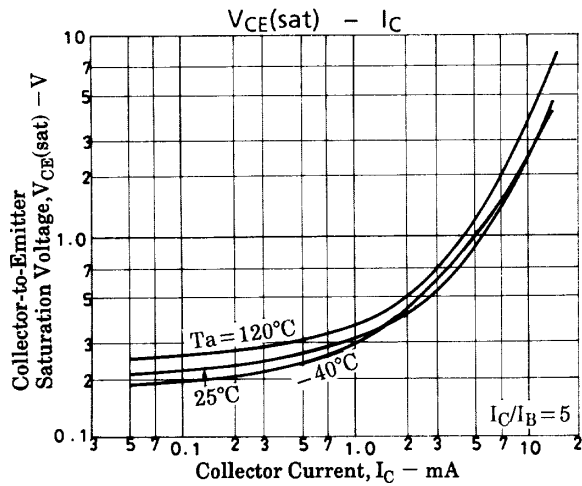
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11599HA (KT)/80296YK (KOTO) TA-0465, AX-7506, 8-6928 No.3706-1/3

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	Cob	V _{CB} =100V, f=1MHz		1.8		pF
Thermal Resistance	Rthj-c	Junction – case			8.3	°C/W





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