



# 2SA1968LS

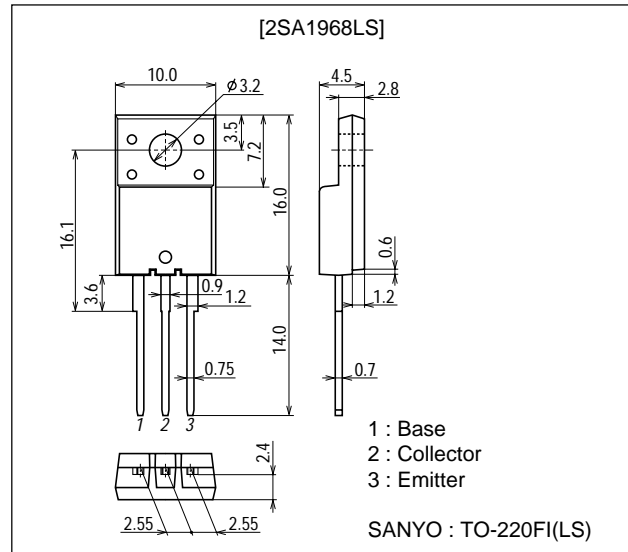
## High-Voltage Amplifier, High-Voltage Switching Applications

### Features

- High breakdown voltage( $V_{CEO} \text{ min} = -900\text{V}$ ).
- Small Cob(Cob typ=2.2pF).
- High reliability(Adoption of HVP process).
- Package of full isolation type.

### Package Dimensions

unit : mm  
2079D



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		-900	V
Collector-to-Emitter Voltage	$V_{CEO}$		-900	V
Emitter-to-Base Voltage	$V_{EB0}$		-7	V
Collector Current	$I_C$		-10	mA
Collector Current (Pulse)	$I_{CP}$		-30	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	$I_{CB0}$	$V_{CB} = -900\text{V}, I_E = 0$			-1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EB0}$	$V_{EB} = -5\text{V}, I_C = 0$			-1	$\mu\text{A}$

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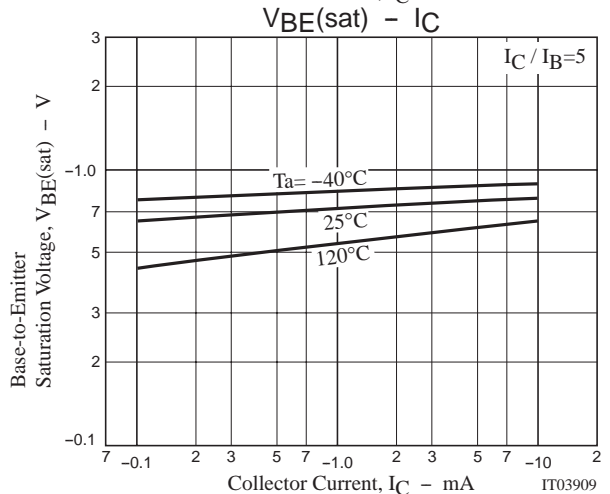
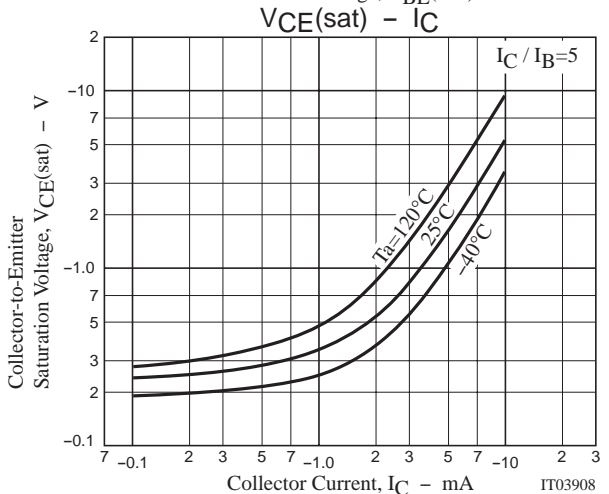
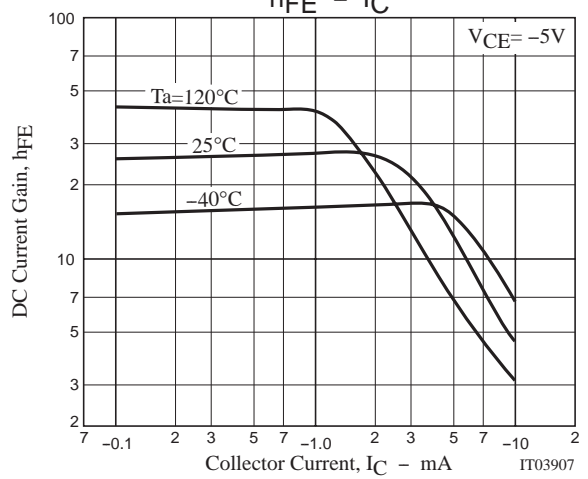
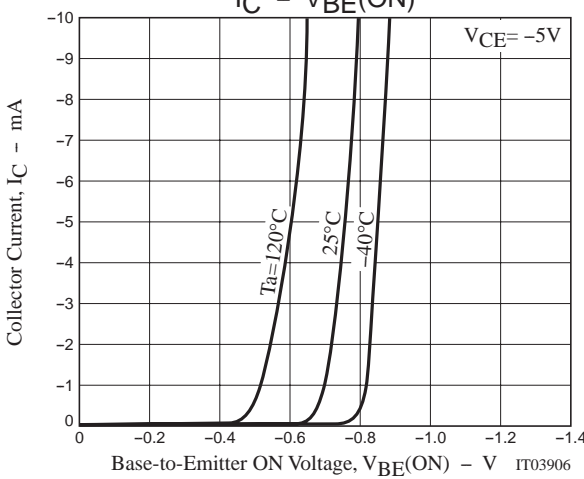
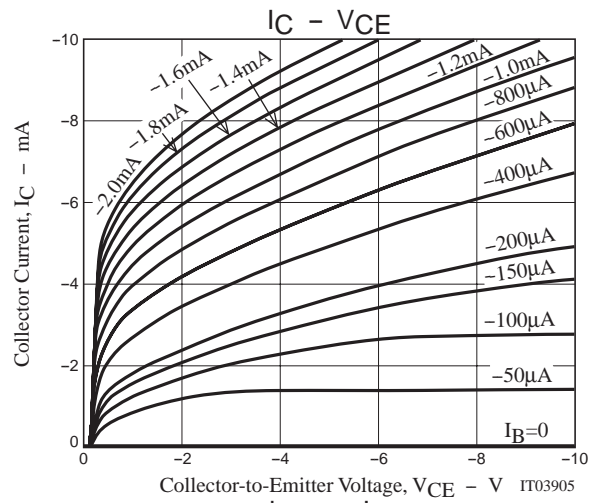
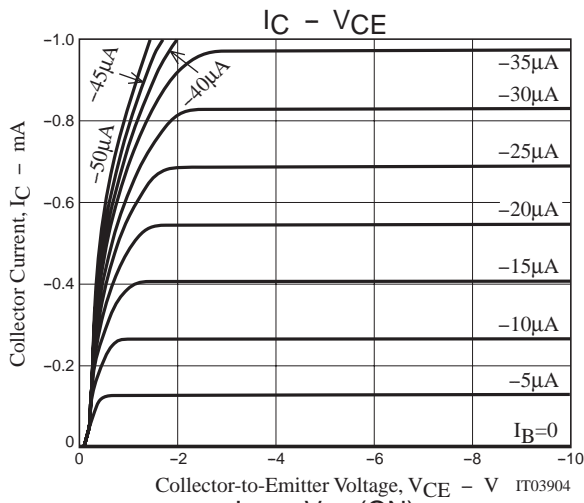
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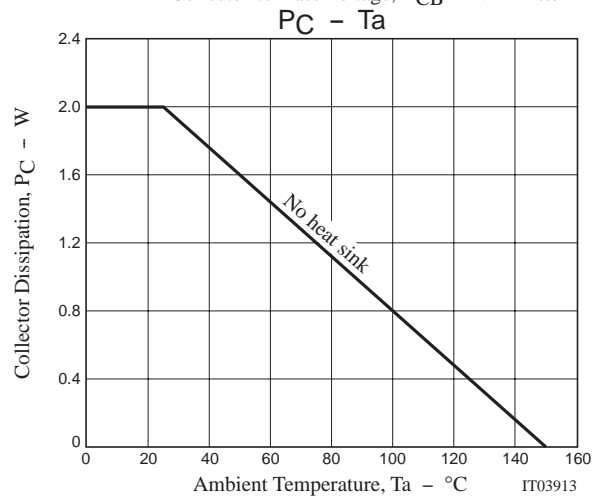
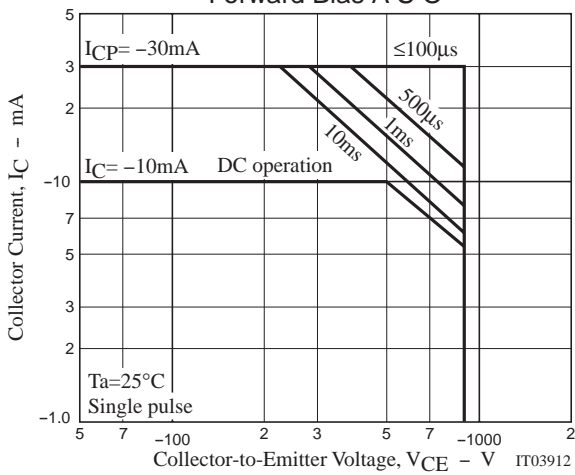
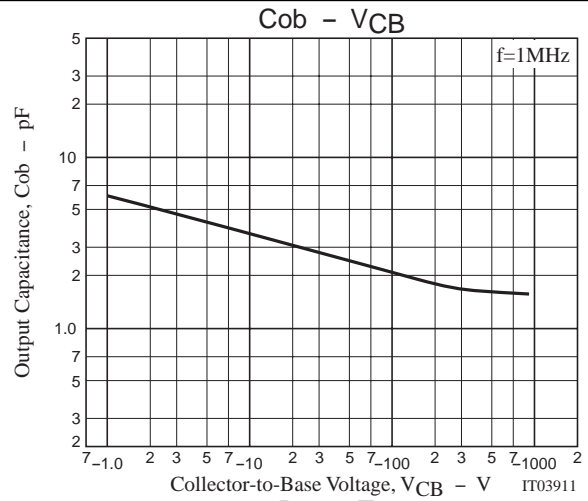
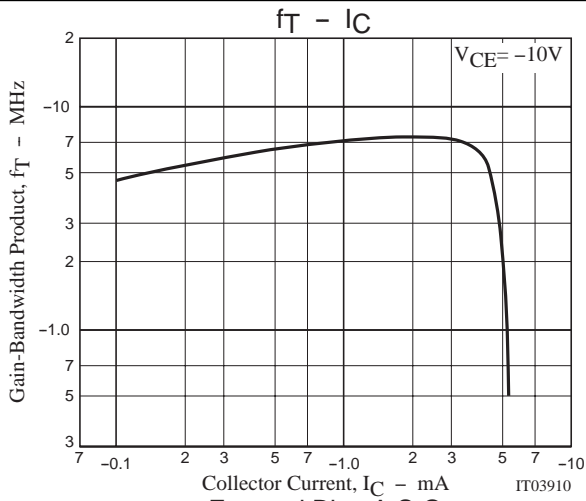
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE}$	$V_{CE}=-5V, I_C=-1mA$	20		50	
Gain-Bandwidth Product	$f_T$	$V_{CE}=-10V, I_C=-1mA$		6		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-100V, f=1MHz$		2.2		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\mu A, I_B=-100\mu A$			-1	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-500\mu A, I_B=-100\mu A$			-1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-900			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, R_{BE}=\infty$	-900			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-7			V
Transient Thermal Resistance	$R_{th(j-c)}$	junction-case			8.3	$^{\circ}C/W$



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