



2SB1295/2SD1935

Low-Frequency General-Purpose Amplifier Applications

Applications

- AF power amplifier, medium-speed switching, small-sized motor drivers.

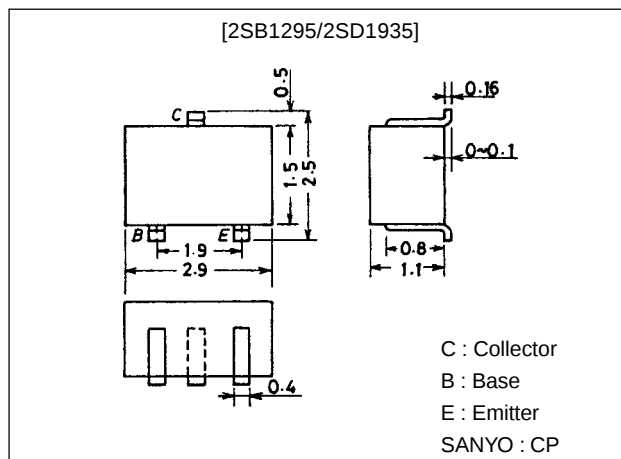
Features

- Large current capacity.
- Low collector to emitter saturation voltage.
- Very small-sized package permitting sets to be made smaller and slimer.

Package Dimensions

unit:mm

2018A



() : 2SB1295

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)15	V
Collector-to-Emitter Voltage	V_{CEO}		(-)15	V
Emitter-to-Base Voltage	V_{EBO}		(-)5	V
Collector Current	I_C		(-)0.8	A
Collector Current (Pulse)	I_{CP}		(-)3	A
Collector Dissipation	P_C		200	mW
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)12V, I_E=0$			(-)100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0$			(-)100	nA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2V, I_C=(-)50mA$	135*		900*	
	h_{FE2}	$V_{CE}=(-)2V, I_C=(-)800mA$	80		(600)	

* : The 2SB1295/2SD1935 are classified by 50mA h_{FE} as follows :

2SB1295	135	5	270	200	6	400	300	7	600	
2SB1935	135	5	270	200	6	400	300	7	600	450 8 900

Marking: 2SB1295 : UL/2SD1935 : CT

 h_{FE} rank: 2SB1295 : 5, 6, 7/2SD1935 : 5, 6, 7, 8

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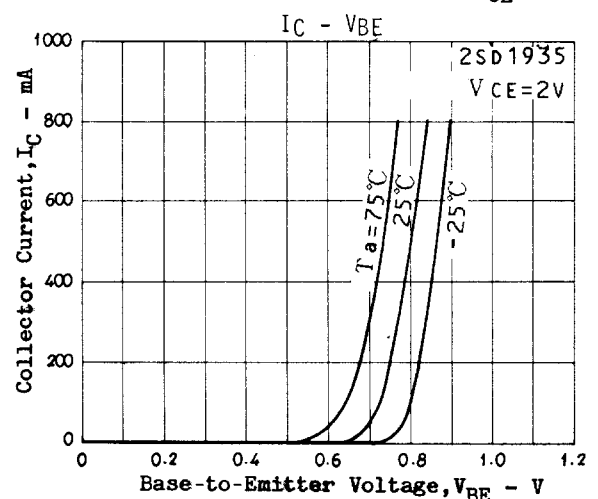
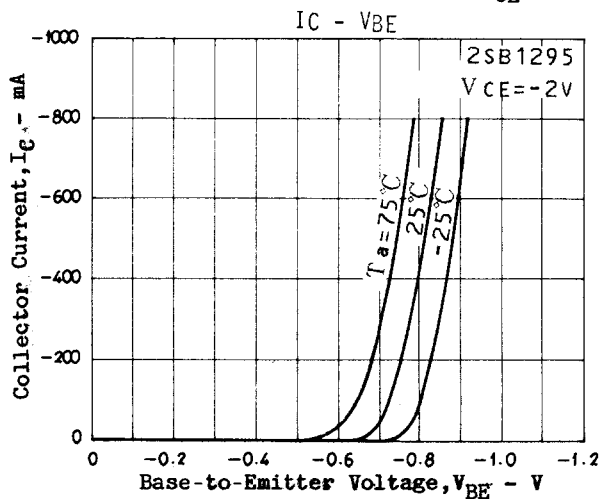
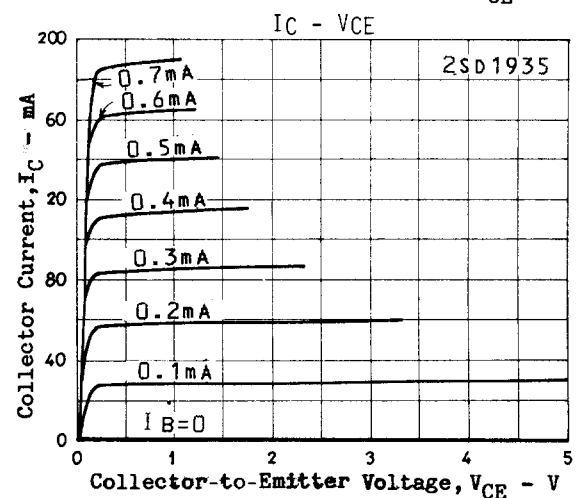
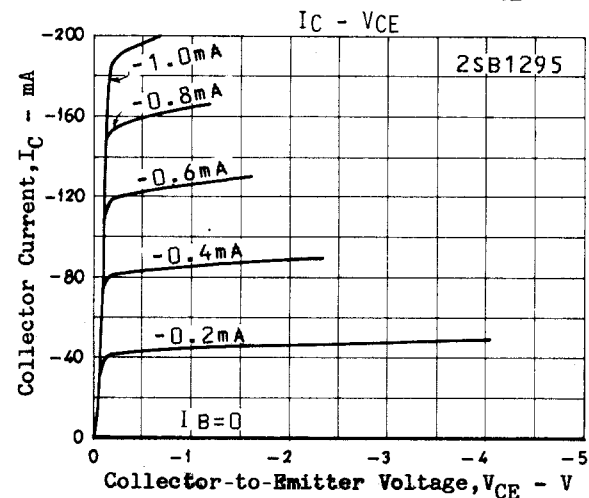
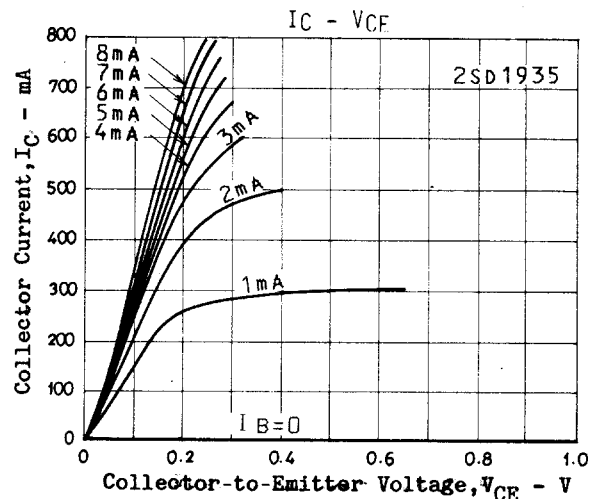
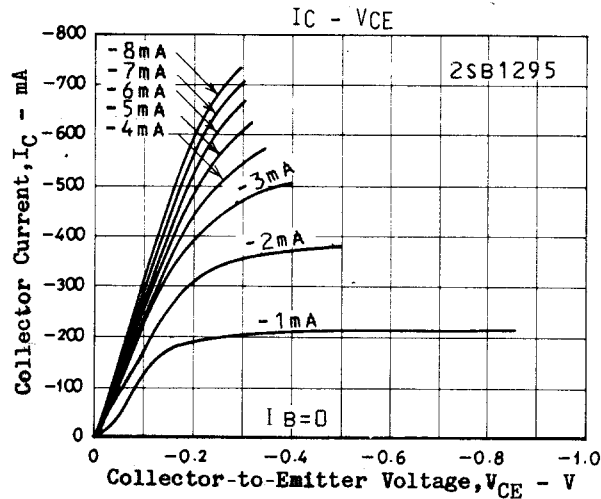
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters

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

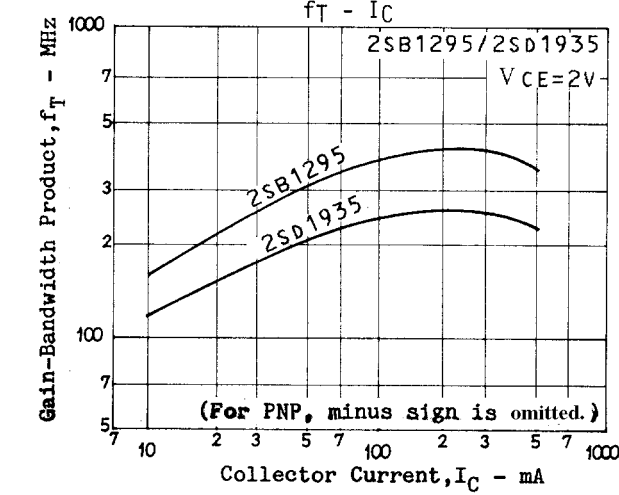
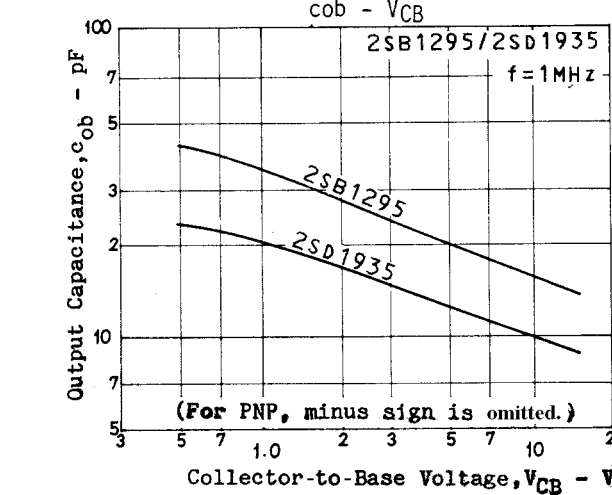
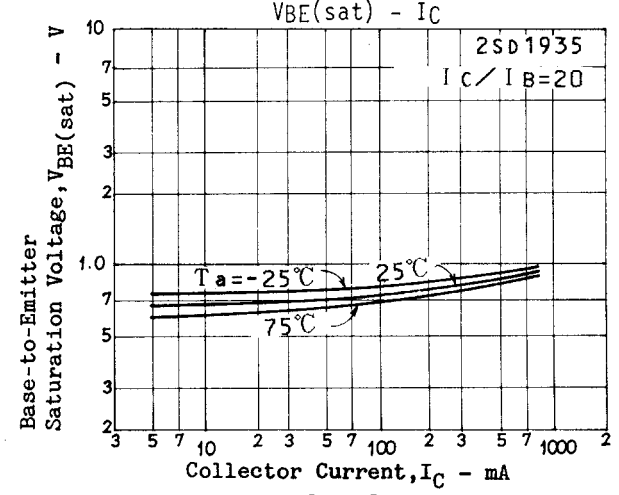
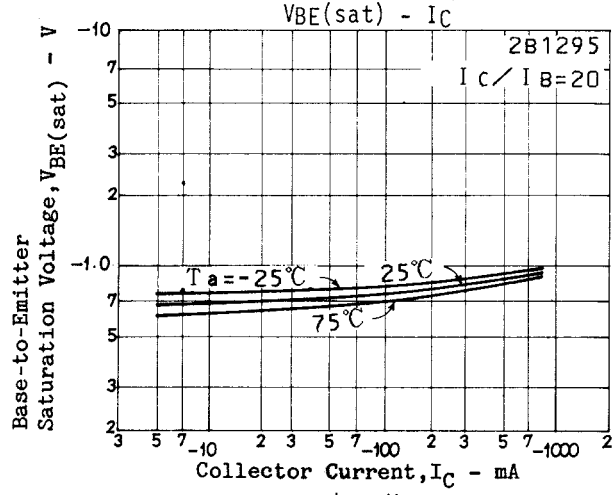
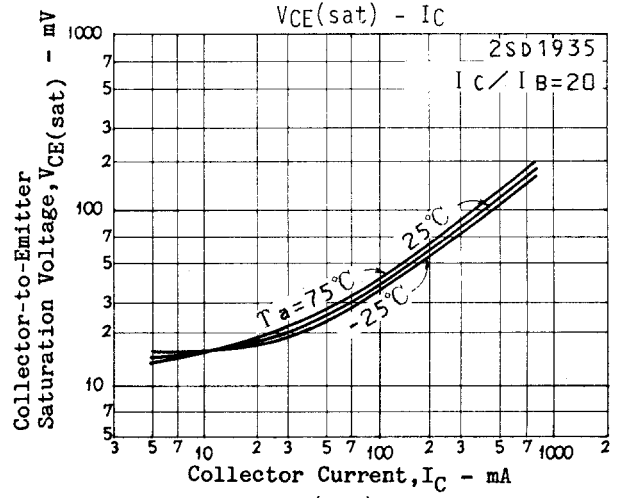
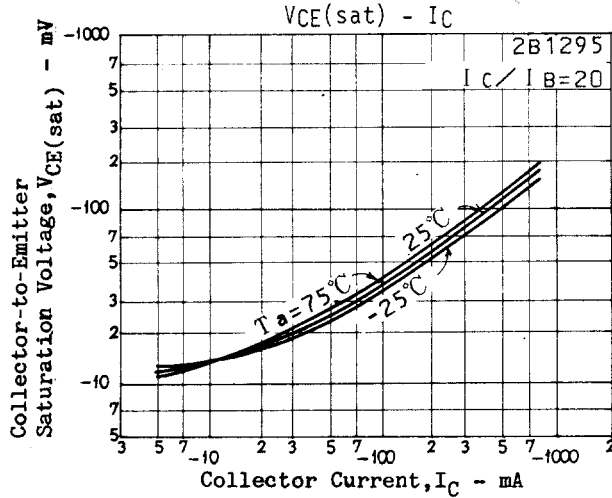
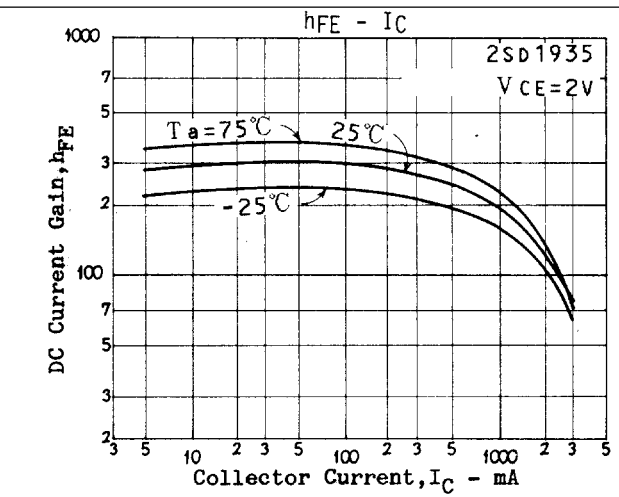
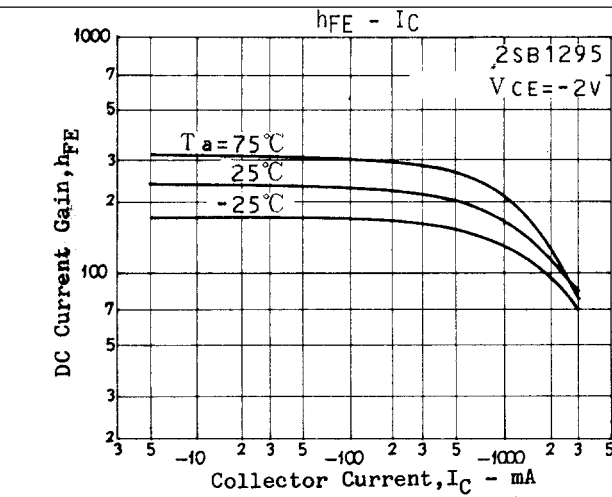
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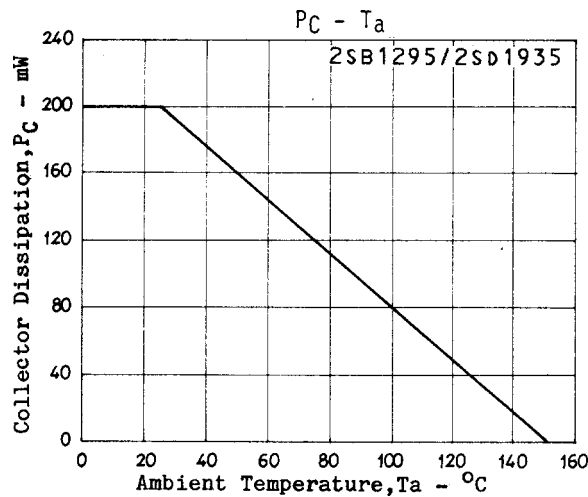
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)2V, I_C=(-)50mA$		200		MHz
				(300)		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(15)		pF
				10		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}^1$	$I_C=(-)5mA, I_B=(-)0.5mA$		(-)10	(-)25	mV
	$V_{CE(sat)}^2$	$I_C=(-)400mA, I_B=(-)20mA$		(-)100	(-)200	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)400mA, I_B=(-)20mA$		(-)0.9	(-)1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$		(-)15		V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$		(-)15		V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$		(-)5		V



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