

Ordering number:EN2516

PNP/NPN Epitaxial Planar Silicon Transistors



## 2SB1295/2SD1935

### Low-Frequency General-Purpose Amplifier Applications

#### Applications

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

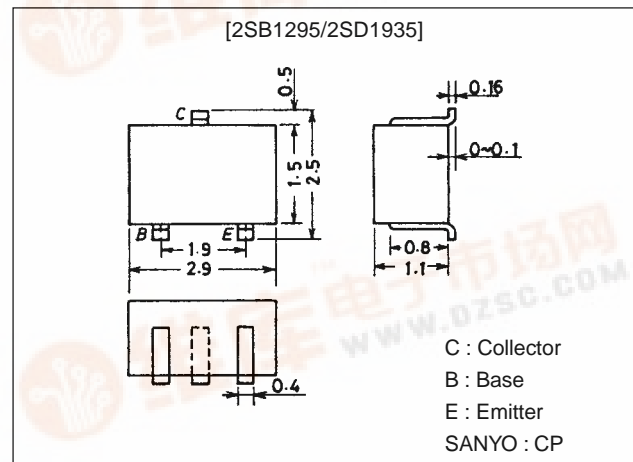
#### Features

- 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 <sub>CB0</sub>		(-15)	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		(-15)	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		(-5)	V
Collector Current	I <sub>C</sub>		(-0.8)	A
Collector Current (Pulse)	I <sub>CP</sub>		(-3)	A
Collector Dissipation	P <sub>C</sub>		200	mW
Junction Temperature	T <sub>j</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

##### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =(-)12V, I <sub>E</sub> =0			(-100)	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0			(-100)	nA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)50mA	135*		900*	
	h <sub>FE2</sub>	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)800mA	80		(600)	

\* : The 2SB1295/2SD1935 are classified by 50mA h<sub>FE</sub> as follows :

2SB1295	135	5	270	200	6	400	300	7	600
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2SB1935	135	5	270	200	6	400	300	7	600	450	8	900
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Marking: 2SB1295 : UL/2SD1935 : CT

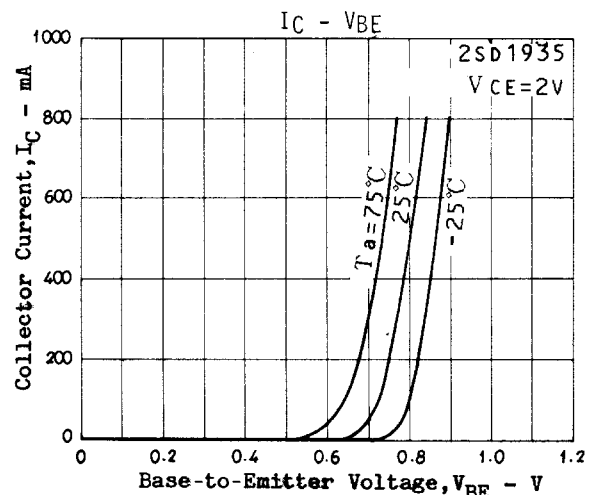
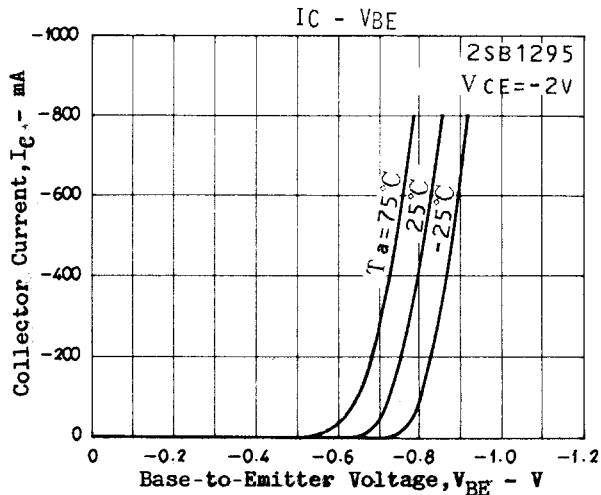
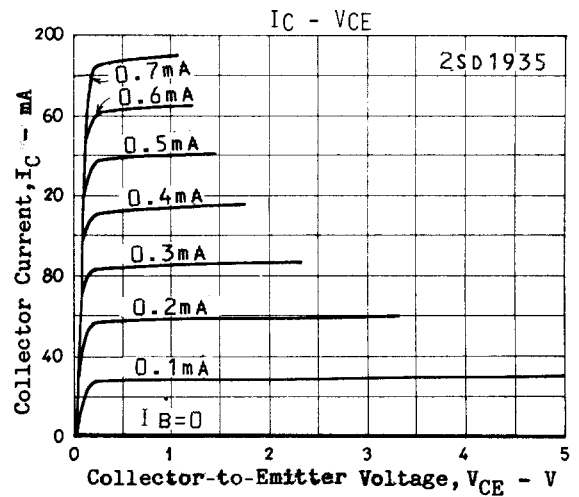
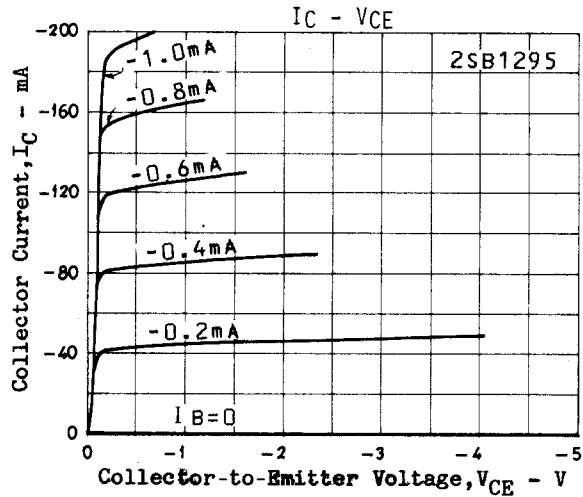
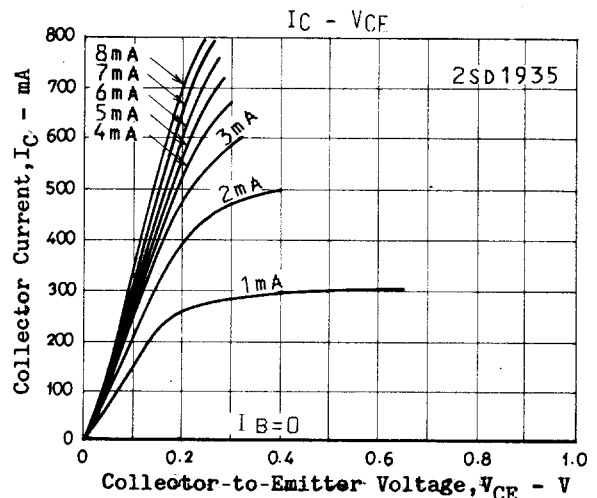
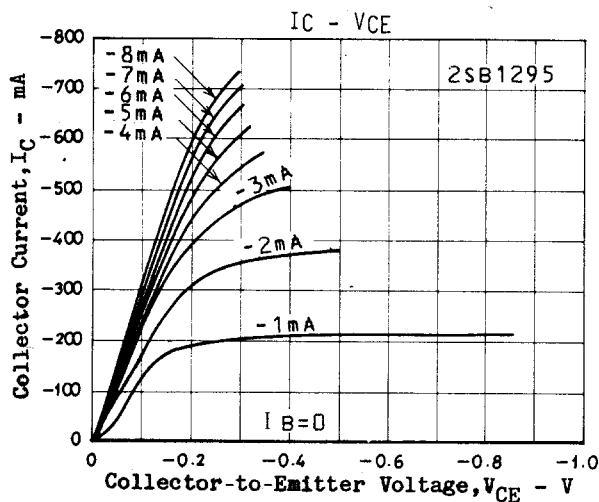
h<sub>FE</sub> rank: 2SB1295 : 5, 6, 7/2SD1935 : 5, 6, 7, 8

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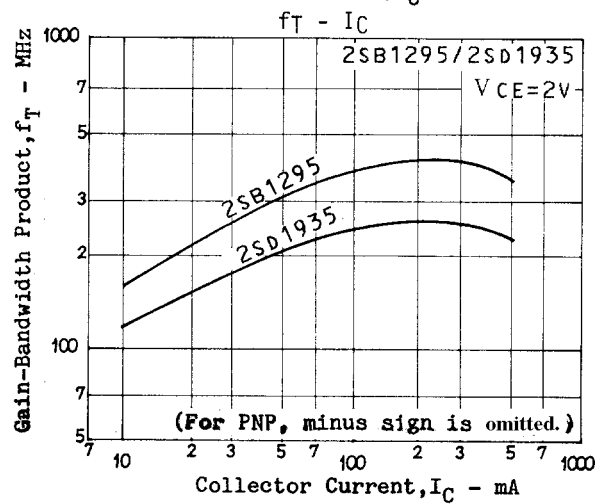
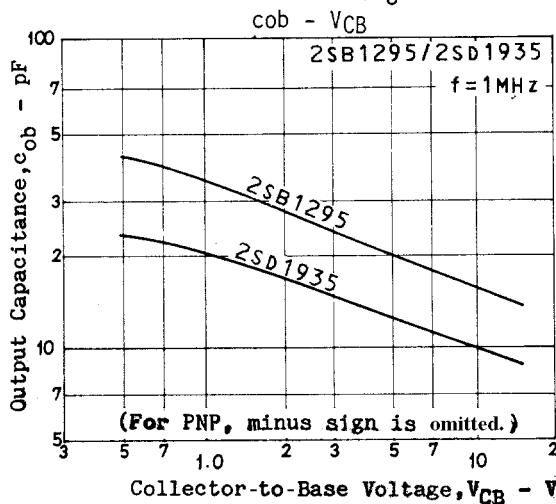
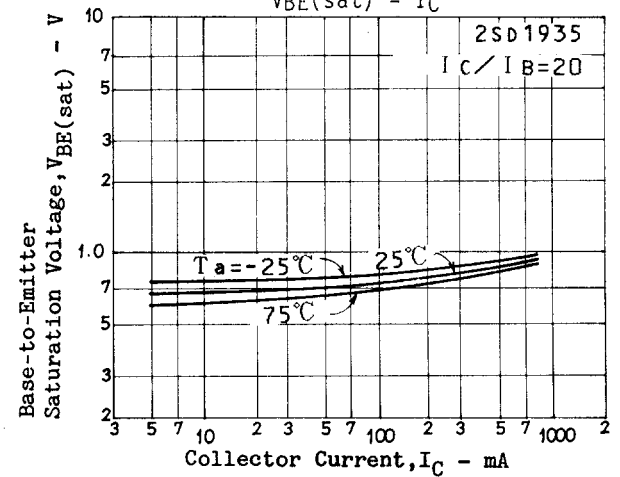
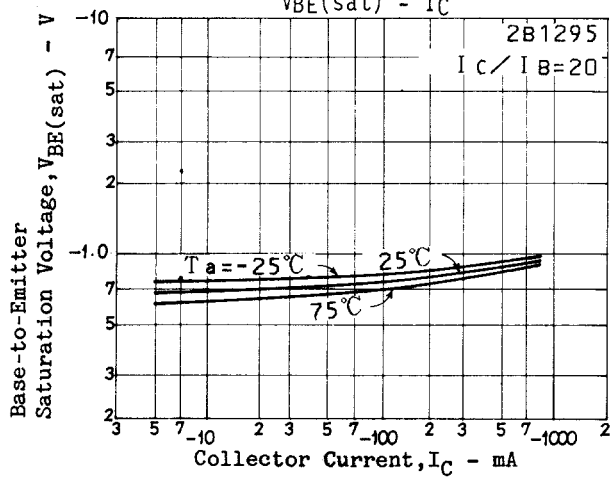
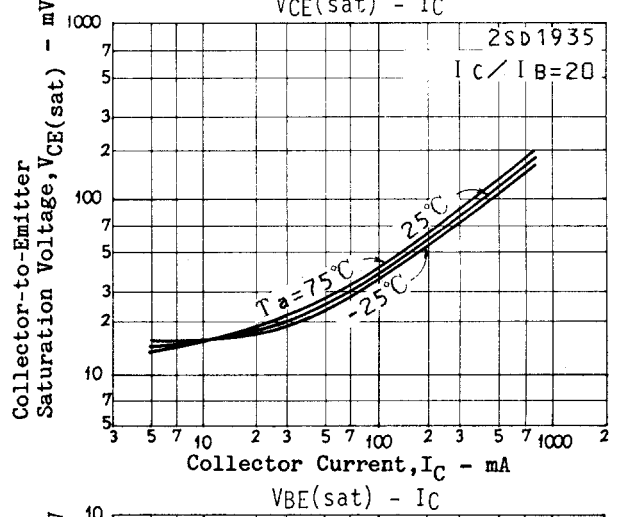
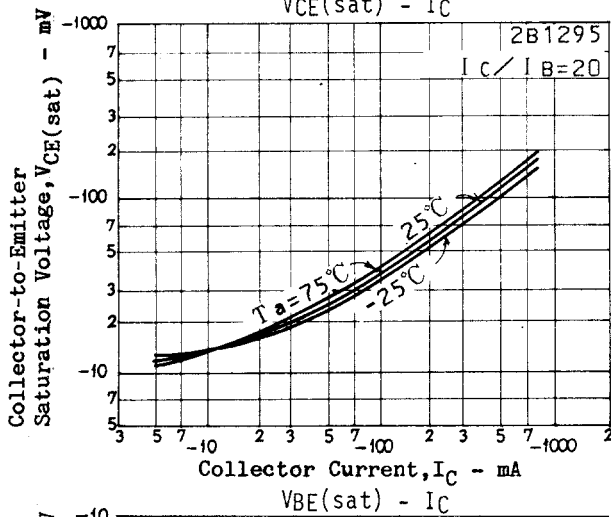
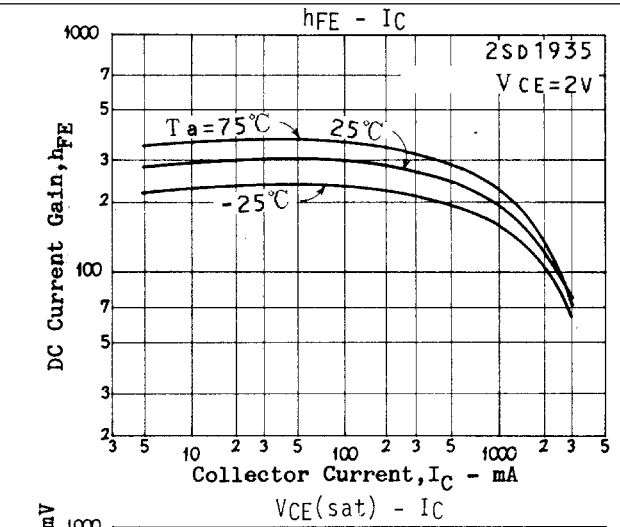
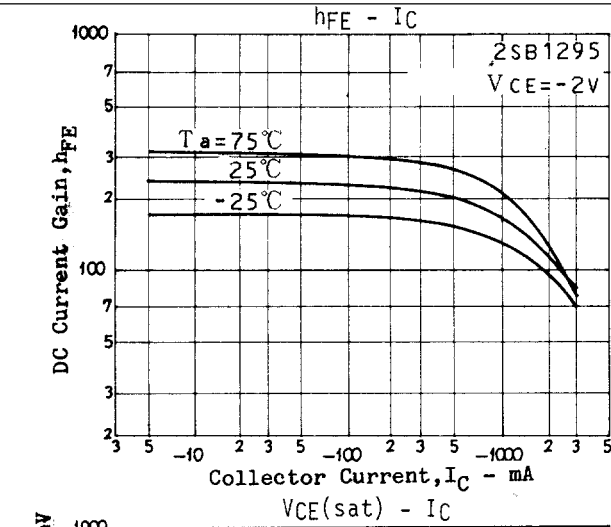
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## 2SB1295/2SD1935

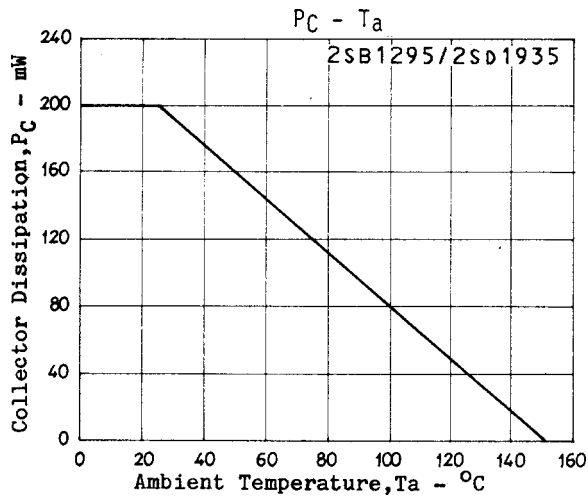
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)2V, I_C=(-)50mA$		200		MHz
				(300)		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=(-)10V, f=1MHz$		(15)		pF
				10		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)5mA, I_B=(-)0.5mA$		(-10)	(-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



## 2SB1295/2SD1935



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