



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.
- Ultrasmall-sized package permitting sets to be made smaller and slimer.

() : 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 :

Continued on next page.

2SB1295	Rank	5	6	7
h_{FE}		135 to 270	200 to 400	300 to 600

2SB1935	Rank	5	6	7	8
h_{FE}		135 to 270	200 to 400	300 to 600	450 to 900

Marking: 2SB1295 : UL/2SD1935 : CT

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

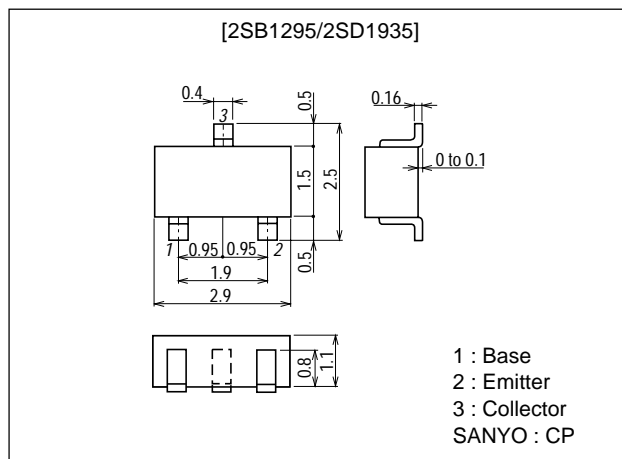
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Package Dimensions

unit:mm

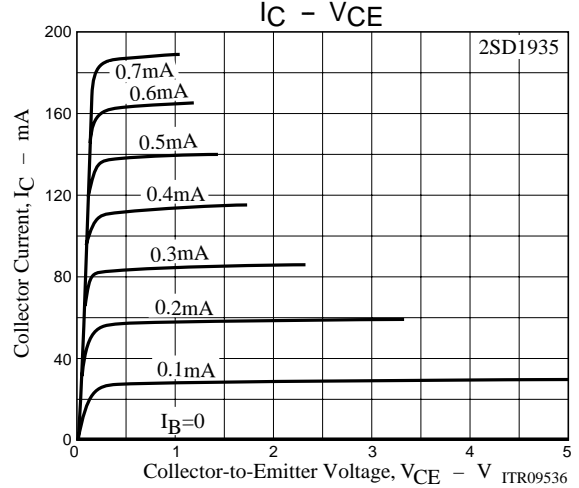
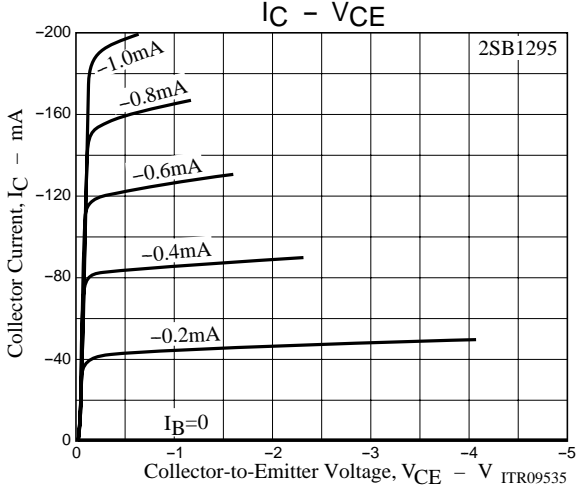
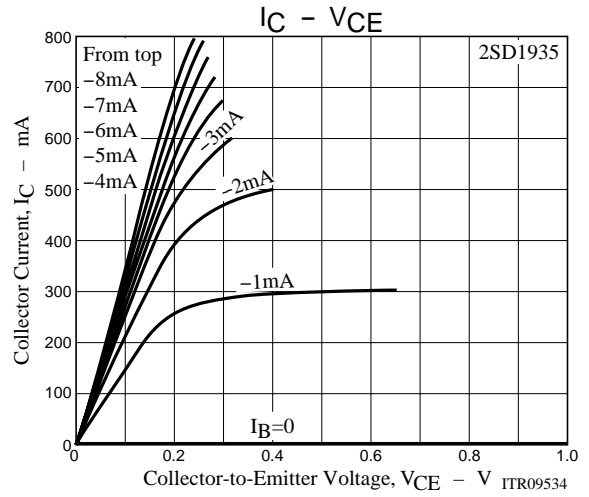
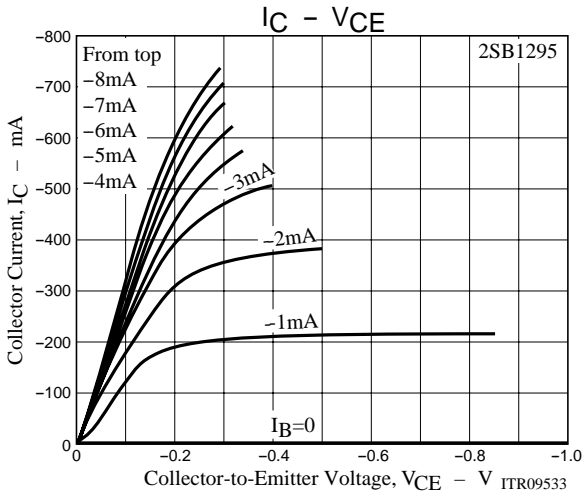
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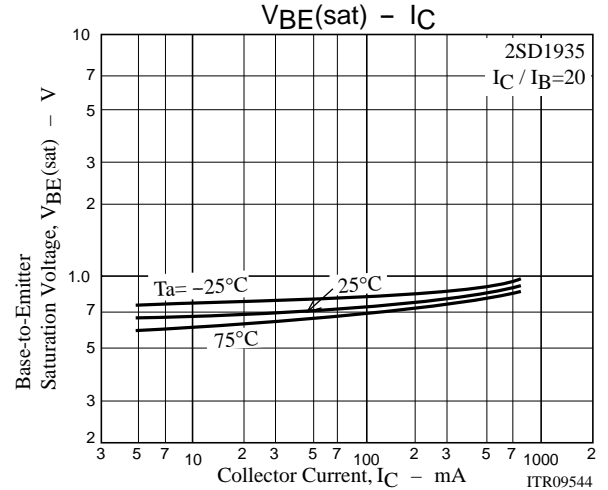
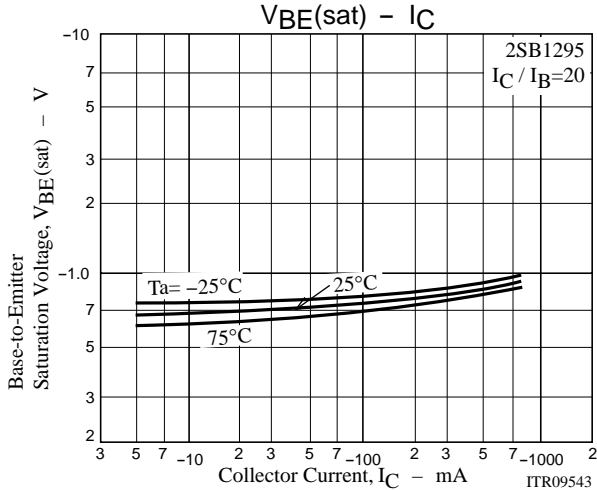
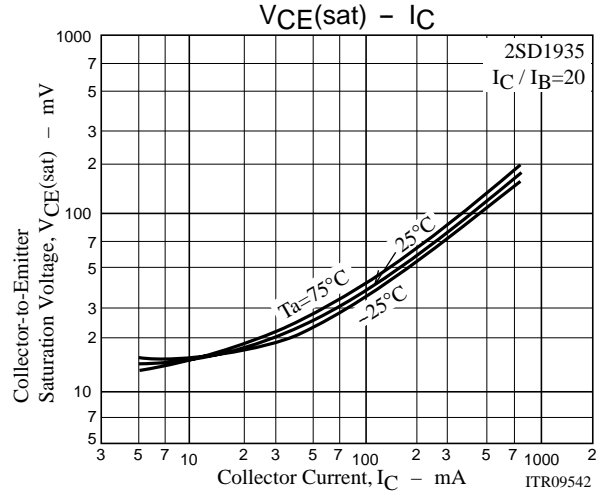
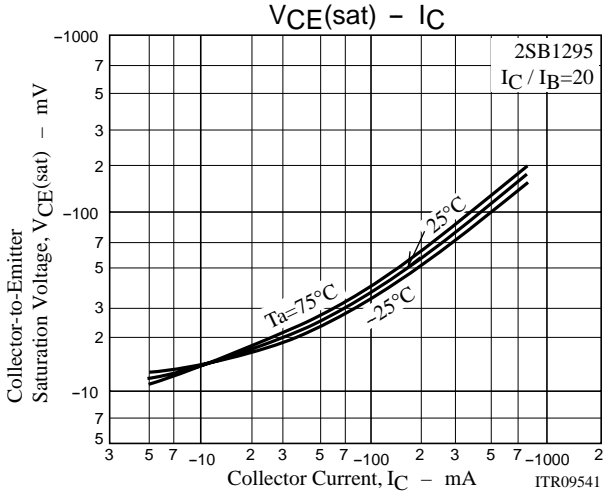
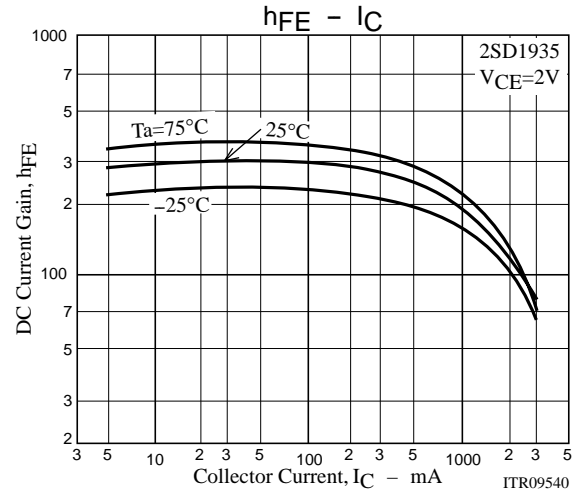
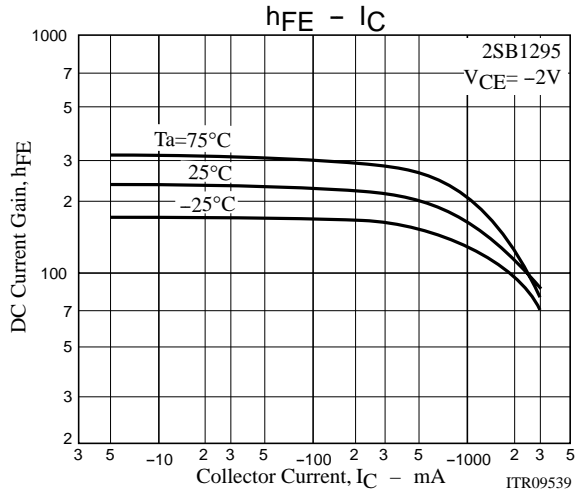
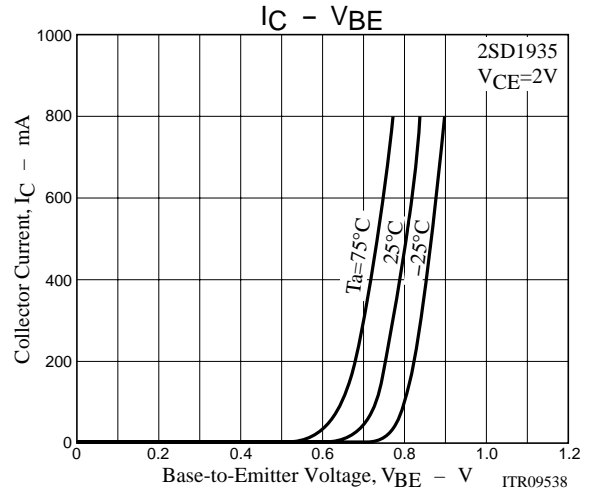
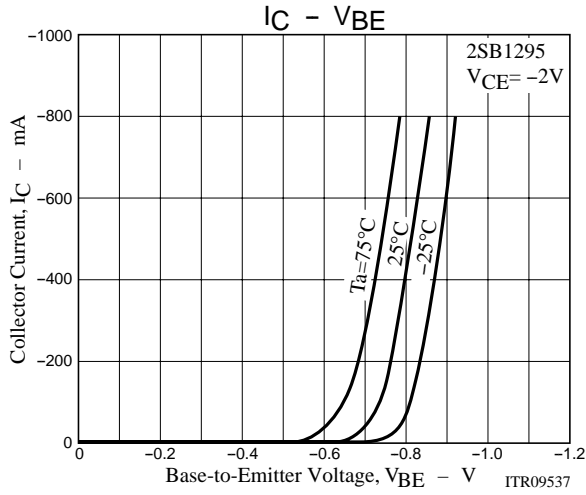
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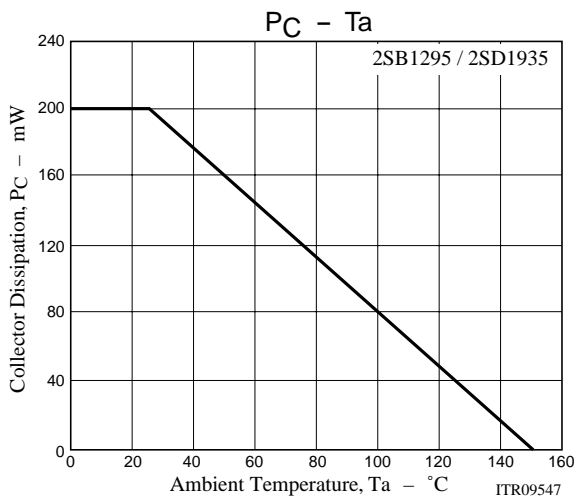
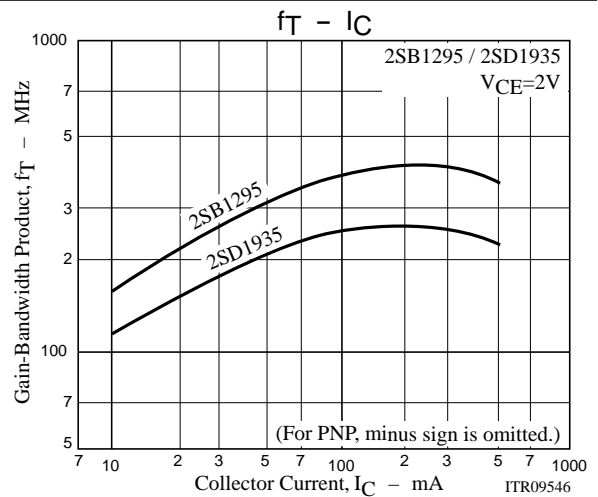
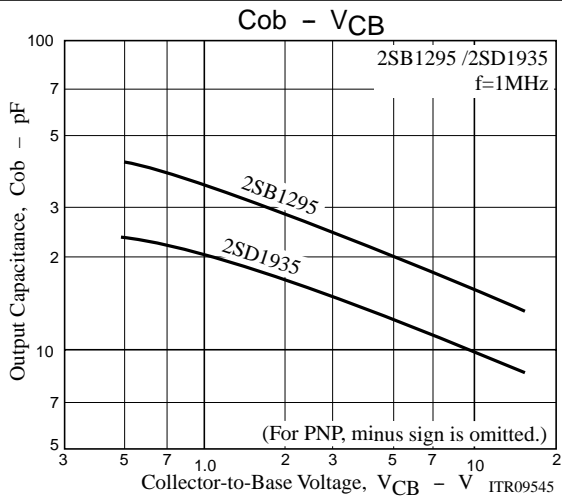
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)2V, I_C=(-)50mA$		200		MHz
				(300)		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(15)		pF
				10		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)5mA, I_B=(-)0.5mA$		(-)10	(-)25	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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