



2SA1882/2SC4984

Low-Frequency General-Purpose Amplifier Applications

Applications

- Low-frequency power amplifier applications.
- Medium-speed switching.
- Small-sized motor drivers.

Features

- Large current capacity.
- Low collector-to-emitter saturation voltage.

Specifications

() : 2SA1882

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)15	V
Collector-to-Emitter Voltage	V_{CEO}		(-)15	V
Emitter-to-Base Voltage	V_{EBO}		(-)5	V
Collector Current	I_C		(-)1.5	A
Collector Current (Pulse)	I_{CP}		(-)3	A
Base Current	I_B		(-)300	mA
Collector Dissipation	P_C	Mounted on a ceramic board (250mm ² ×0.8mm)	1.3	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CB0}	$V_{CB}=(-)12\text{V}, I_E=0$			(-)100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)100	nA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$	140*		560*	
	h_{FE2}	$V_{CE}=(-)2\text{V}, I_C=(-)1\text{A}$	70			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$		(300)		MHz
				200		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(15)10		pF

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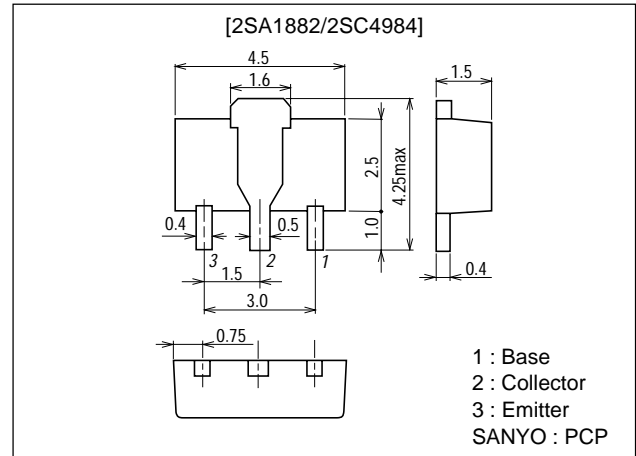
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Package Dimensions

unit:mm

2038A



2SA1882/2SC4984

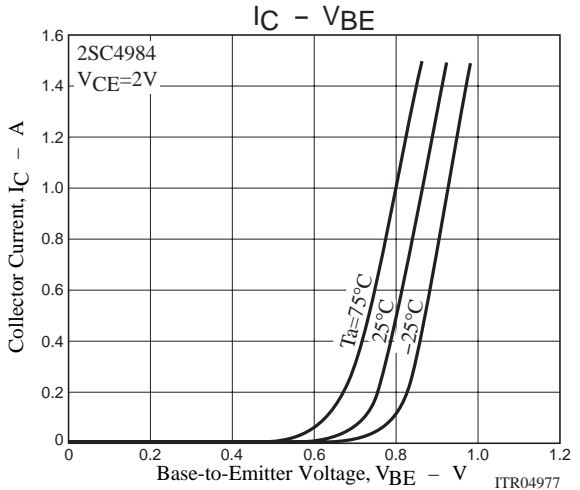
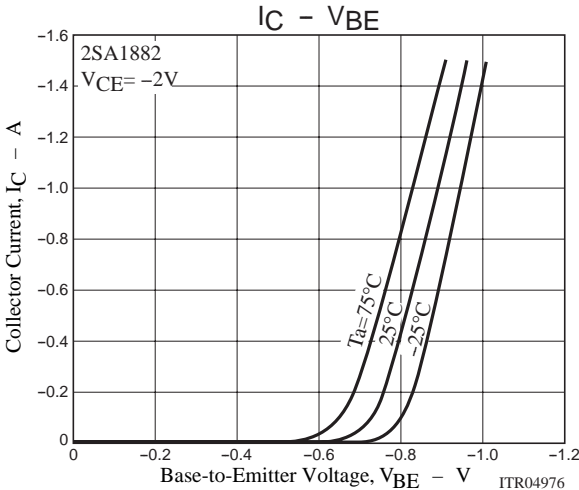
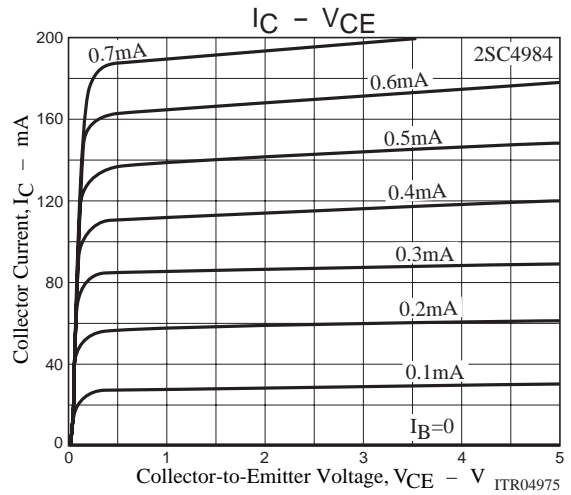
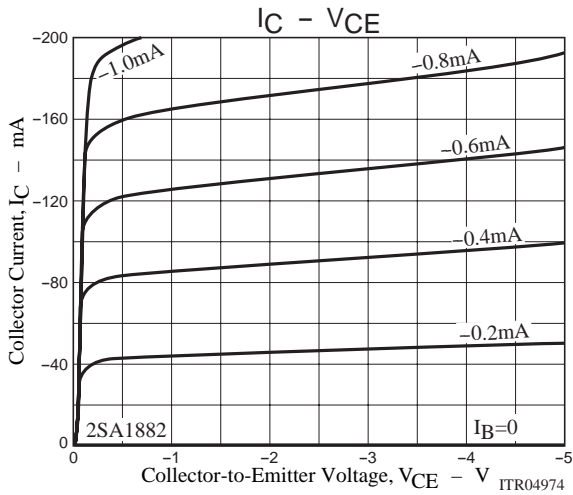
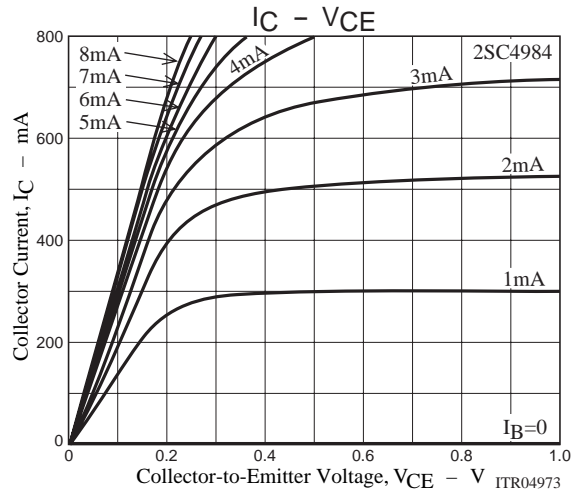
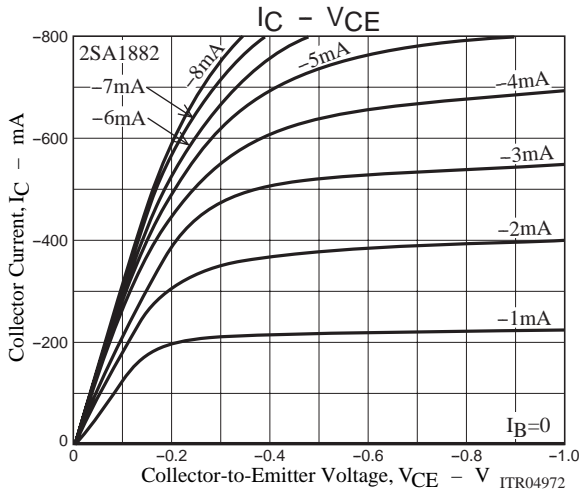
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)5mA, I_B=(-)0.5mA$		(-)10	(-)25	mV
	$V_{CE(sat)2}$	$I_C=(-)500mA, I_B=(-)25mA$		(-)120	(-)240	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500mA, I_B=(-)25mA$		(-)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

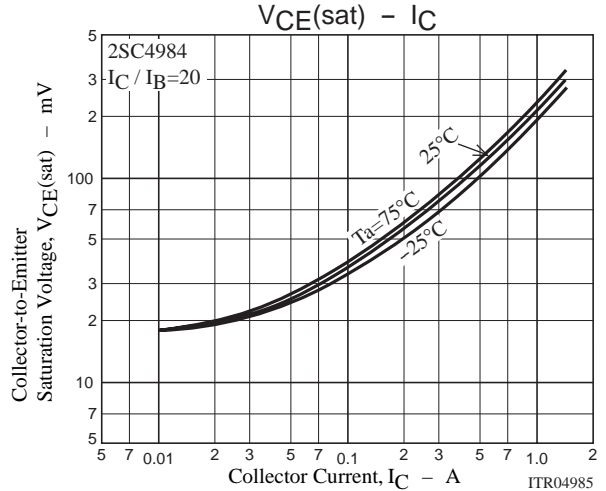
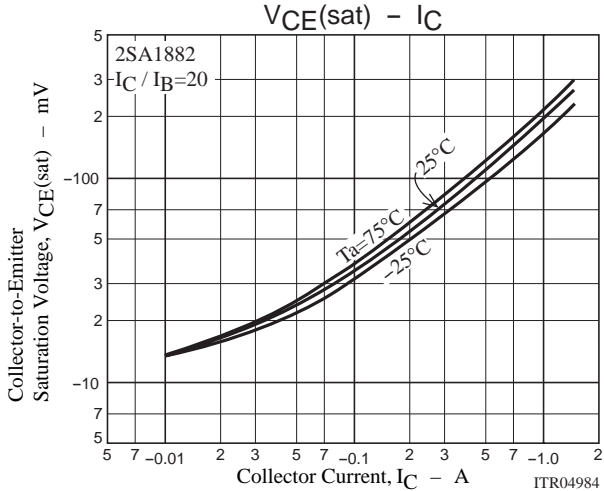
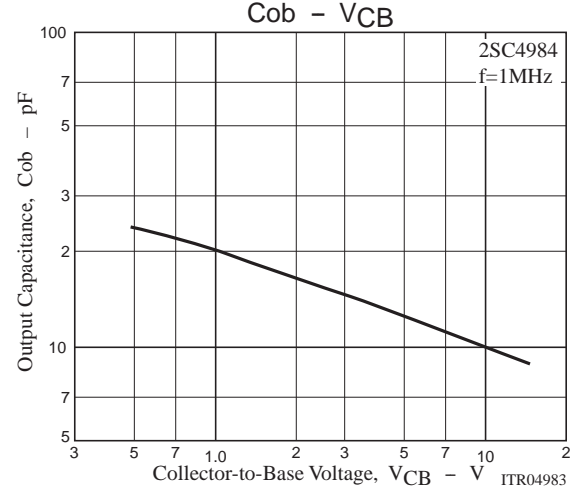
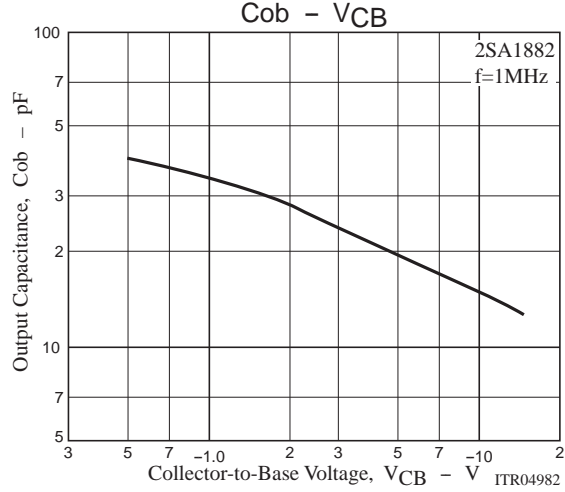
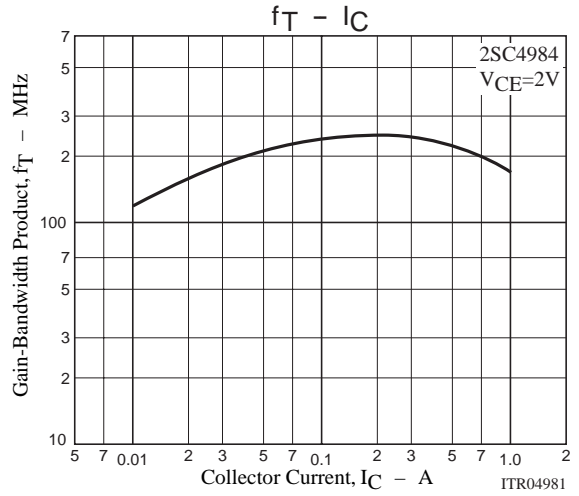
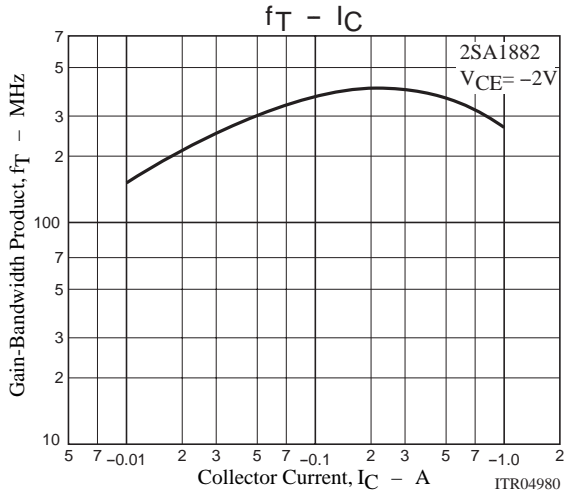
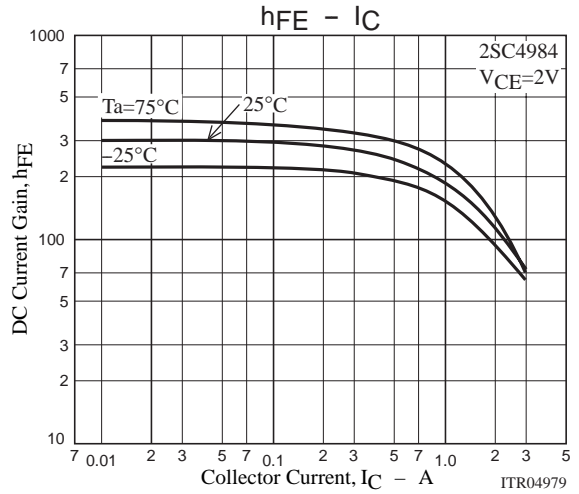
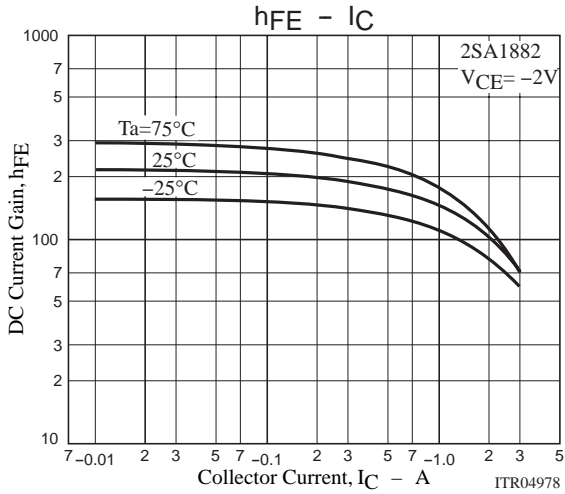
* : The 2SA1882/2SC4984 are classified by h_{FE} values at $I_C=50mA$ as follows :

Marking : 2SA1882 : AI
2SC4984 : CT

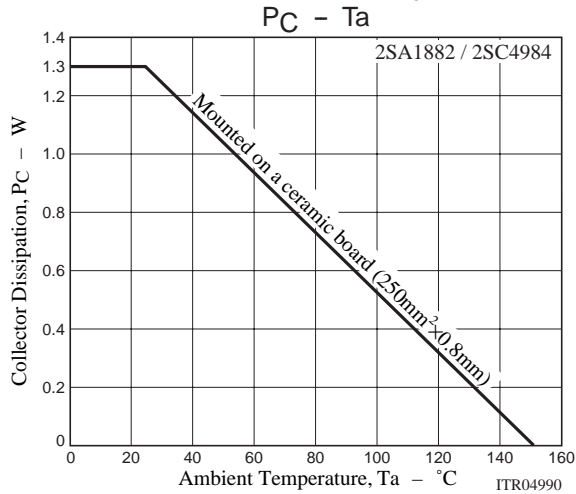
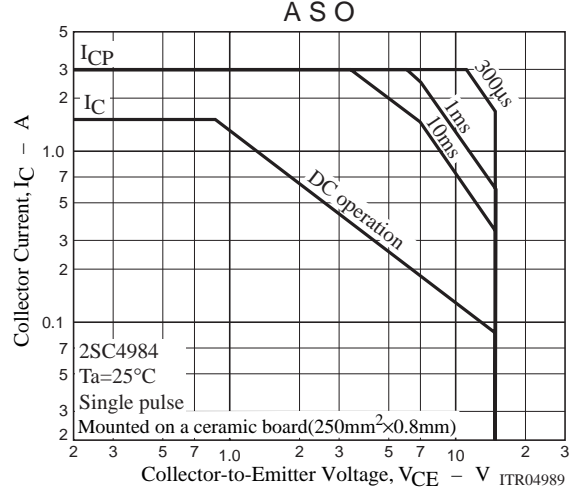
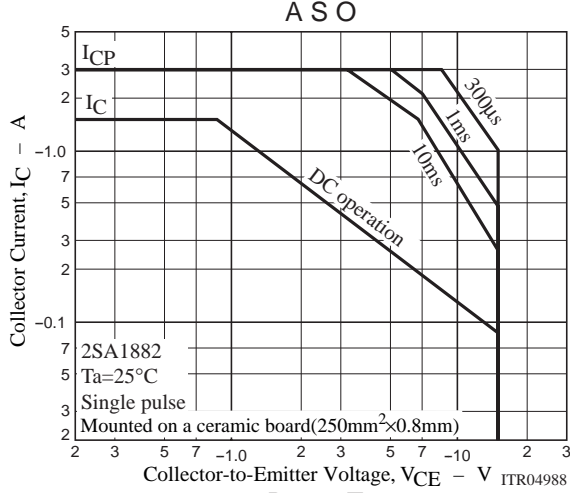
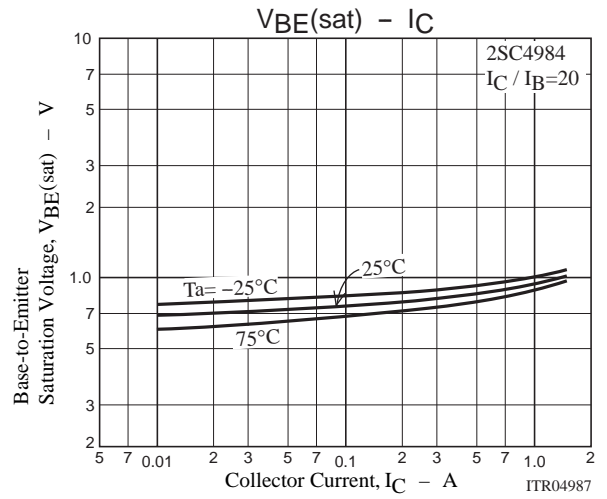
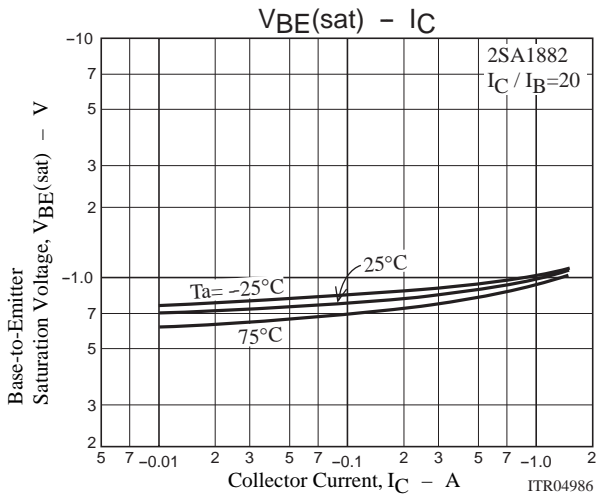
Rank	S	T	U
h_{FE}	140 to 280	200 to 400	280 to 560



2SA1882/2SC4984



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