



## 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 <sup>2</sup> ×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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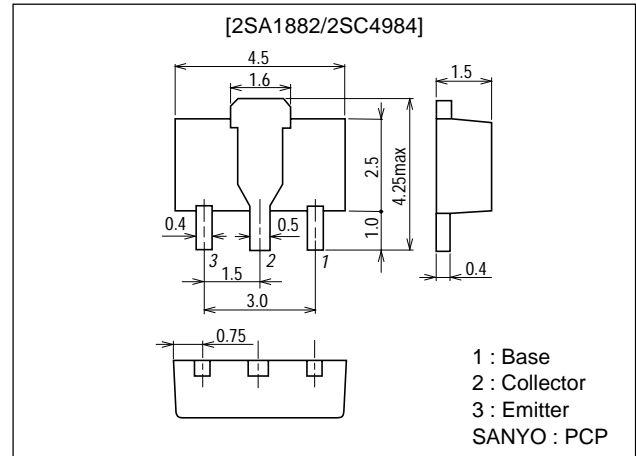
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#### Package Dimensions

unit:mm

2038A



# 2SA1882/2SC4984

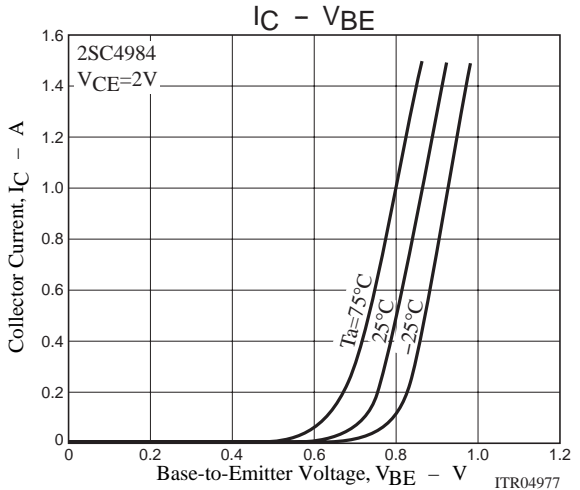
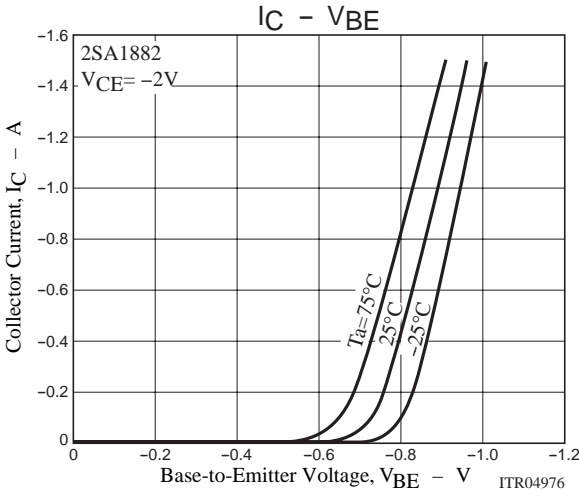
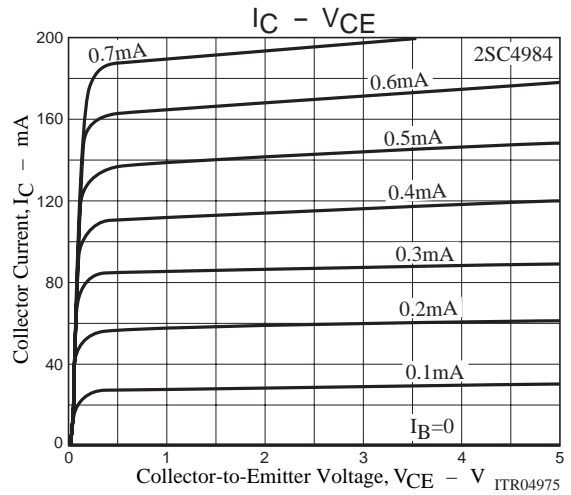
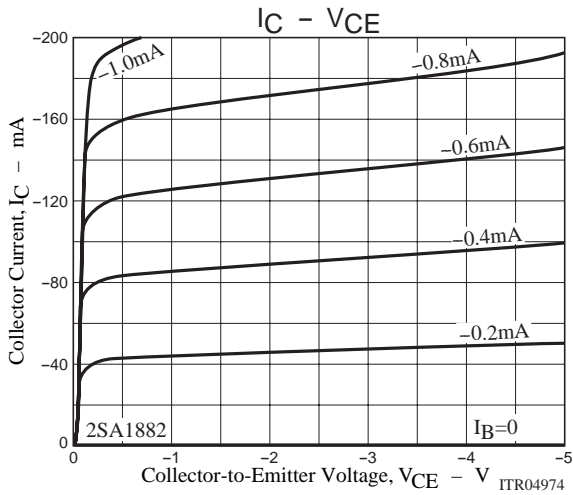
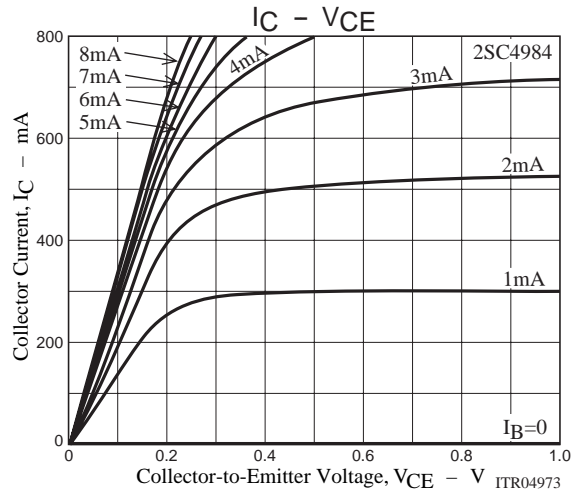
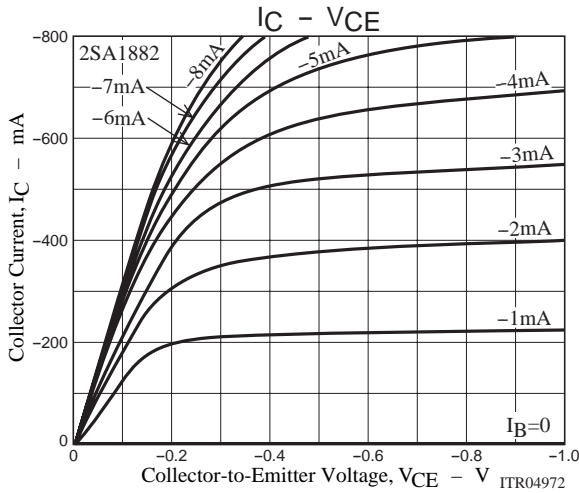
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)5mA, I_B=(-)0.5mA$		(-)10	(-)25	mV
	$V_{CE(sat)2}$	$I_C=(-)500mA, I_B=(-)25mA$		(-)120	(-)240	mV
Base-to-Emitter Saturation Voltage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

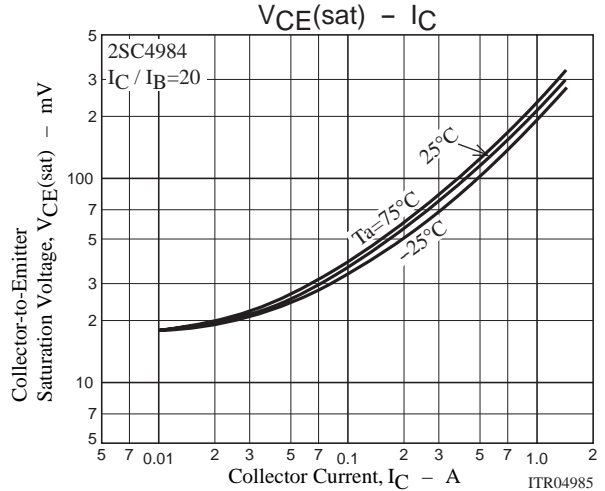
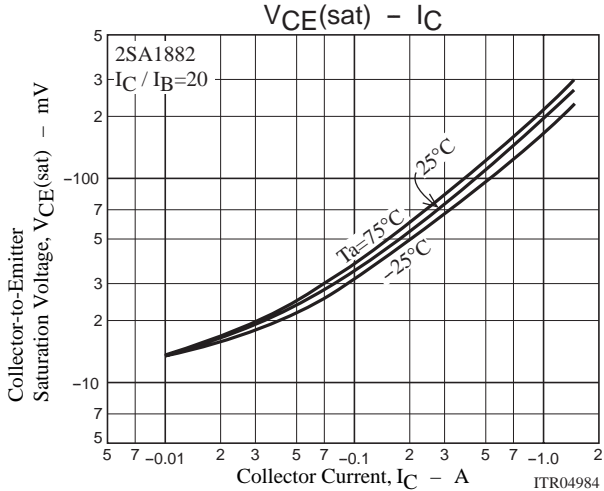
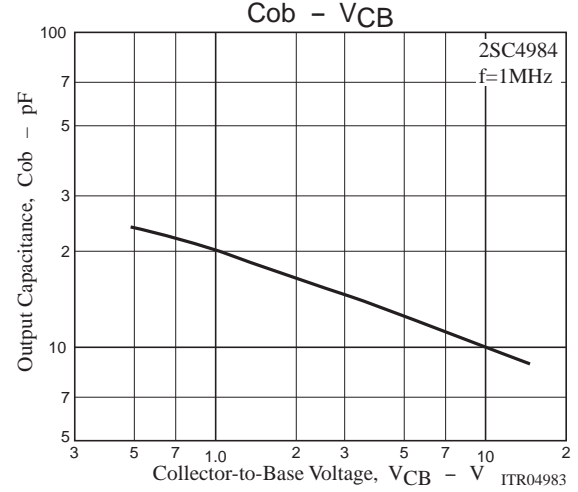
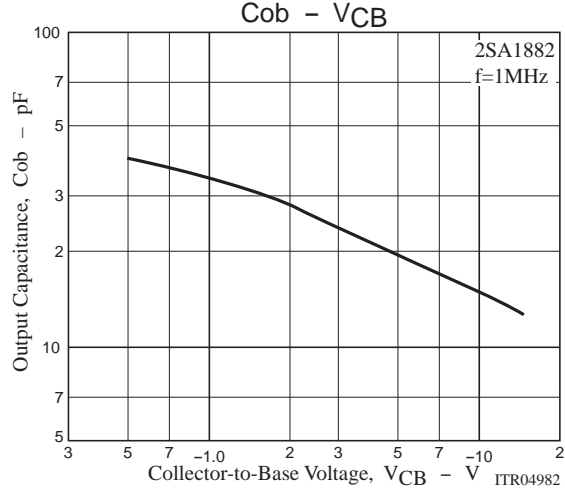
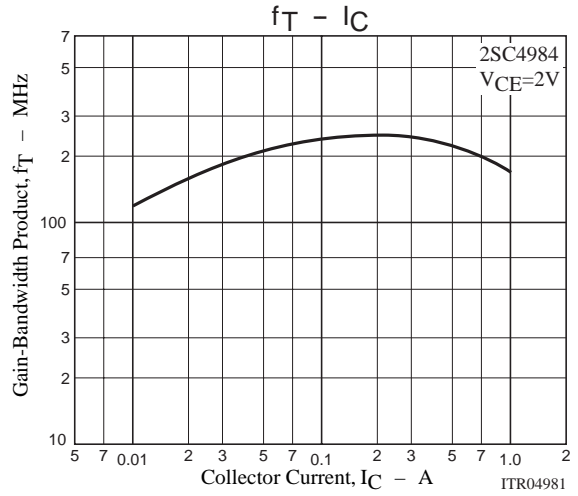
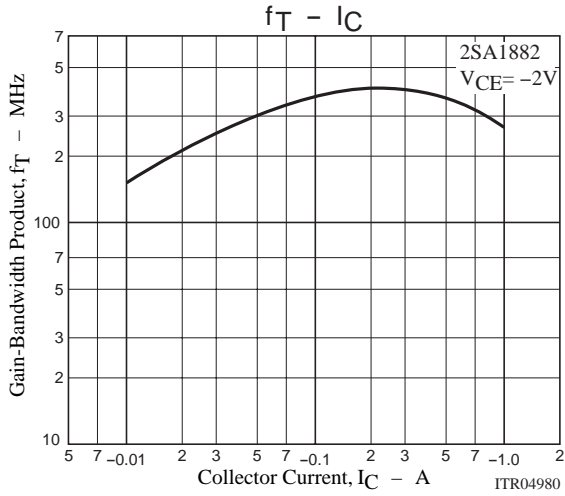
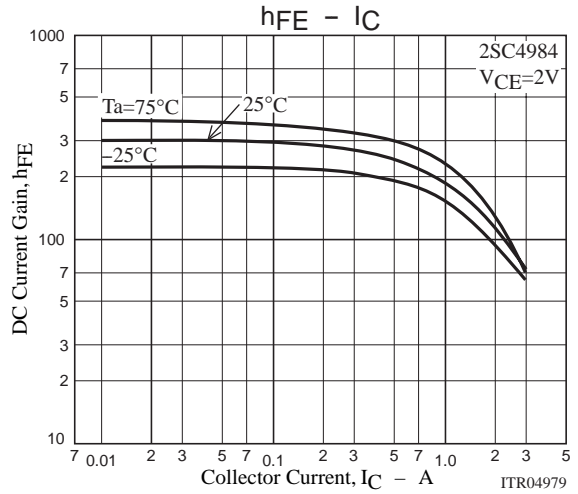
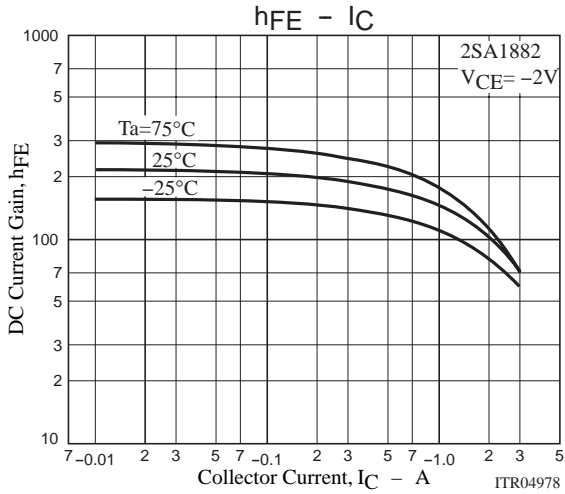
\* : The 2SA1882/2SC4984 are classified by  $h_{FE}$  values at  $I_C=50mA$  as follows :

Marking : 2SA1882 : AI  
2SC4984 : CT

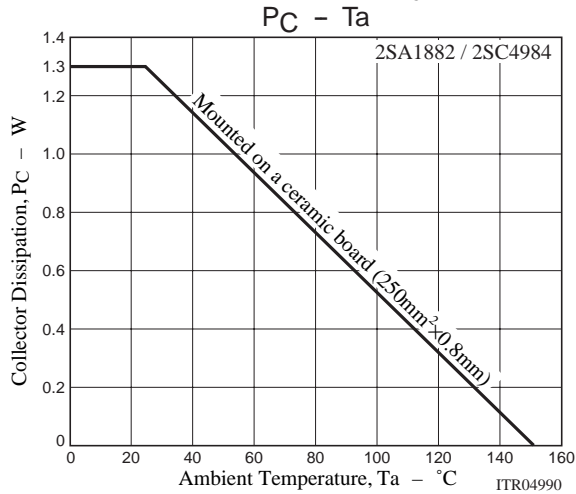
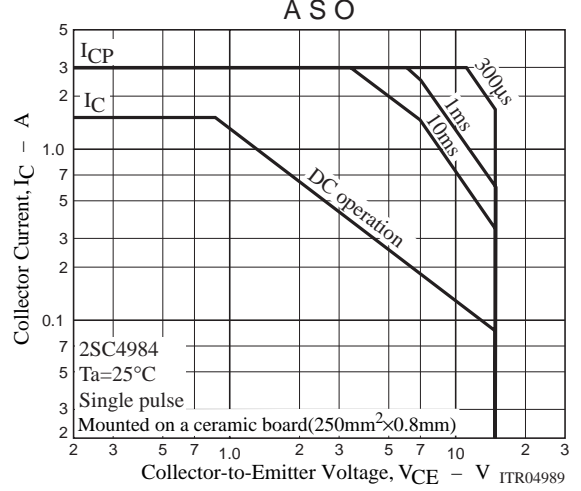
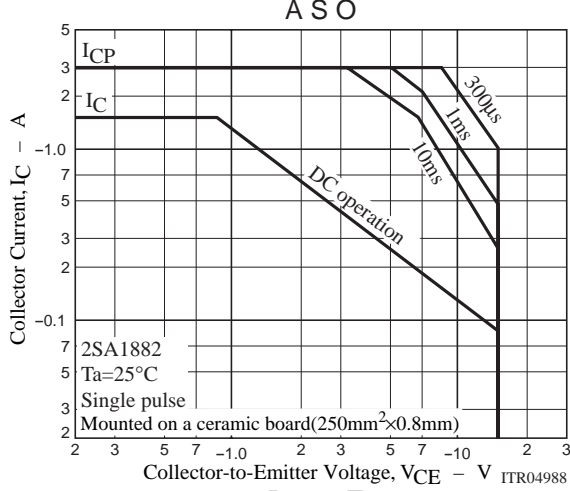
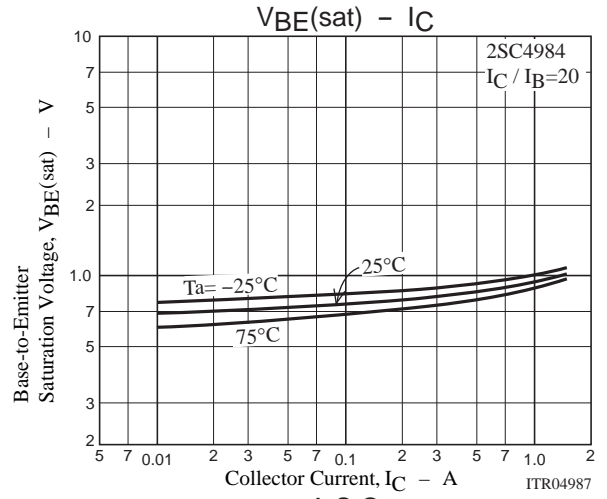
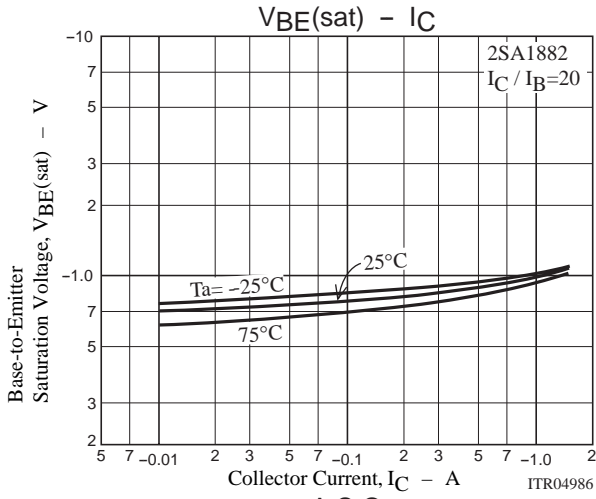
Rank	S	T	U
$h_{FE}$	140 to 280	200 to 400	280 to 560



# 2SA1882/2SC4984



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