



## 2SA1881/2SC4983

### Low-Frequency General-Purpose Amplifier Applications

#### Features

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

#### Features

- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Very small-sized package permitting 2SA1881/2SC4983-applied set to be made smaller and slimmer.

( ) : 2SA1881

#### Specifications

##### 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	A
Collector Current (Pulse)	$I_{CP}$		(-)3	A
Base Current	$I_B$		(-)200	mA
Collector Dissipation	$P_C$		250	mW
Junction Temperature	$T_J$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

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

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

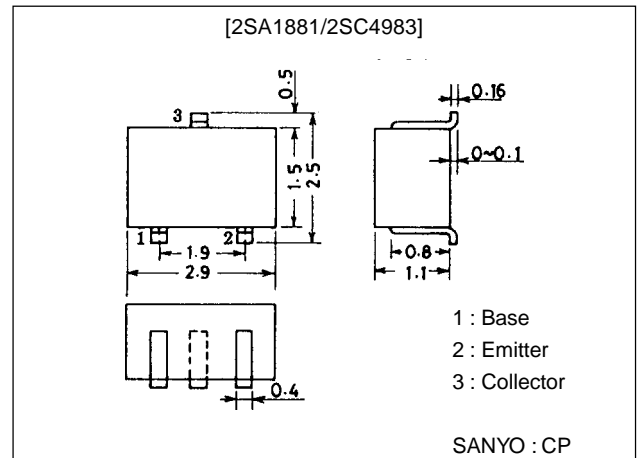
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#### Package Dimensions

unit:mm

2018B



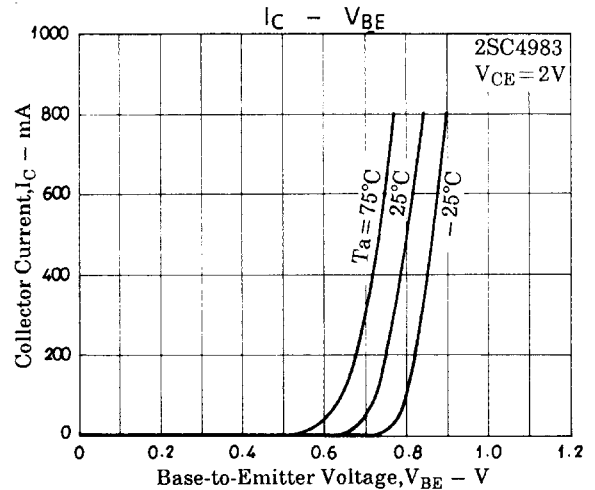
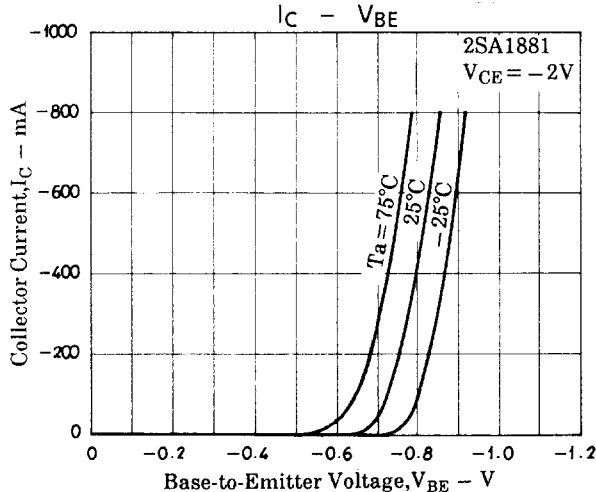
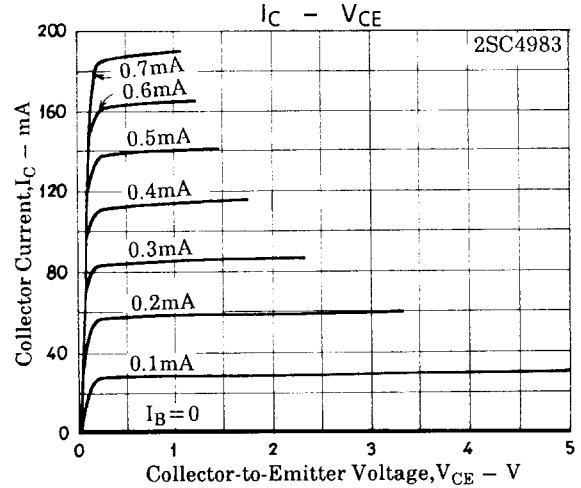
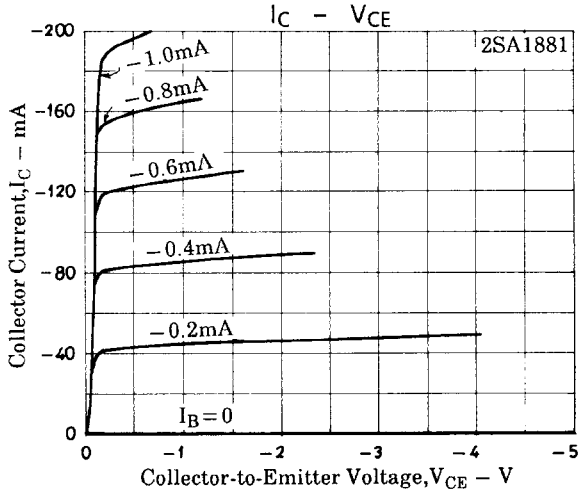
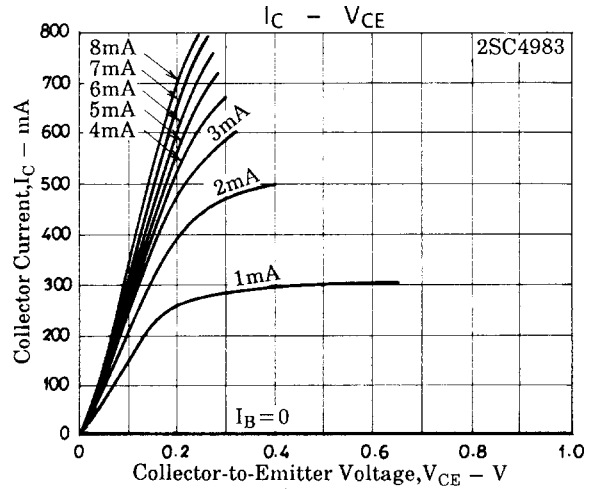
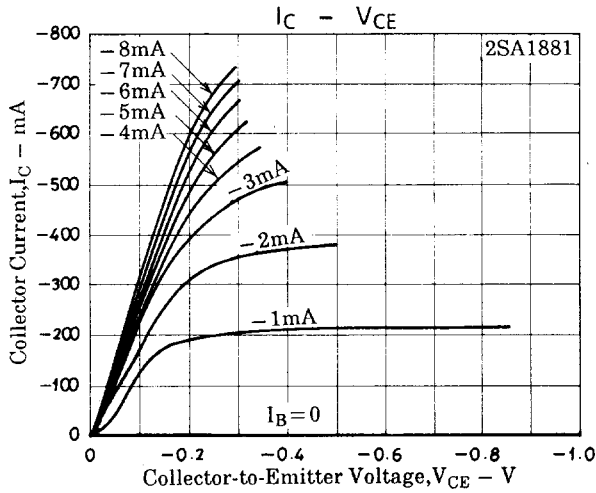
## 2SA1881/2SC4983

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

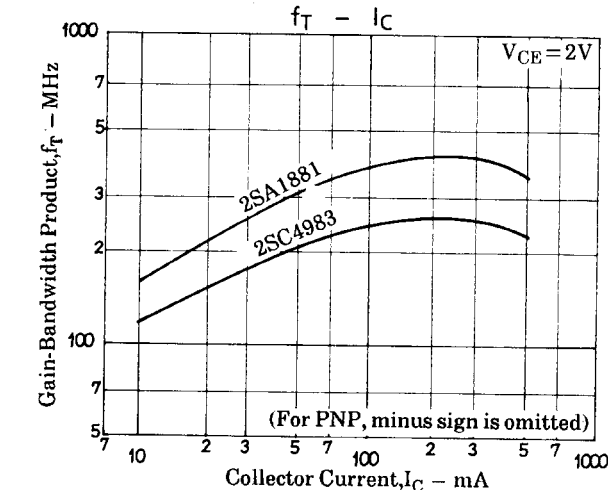
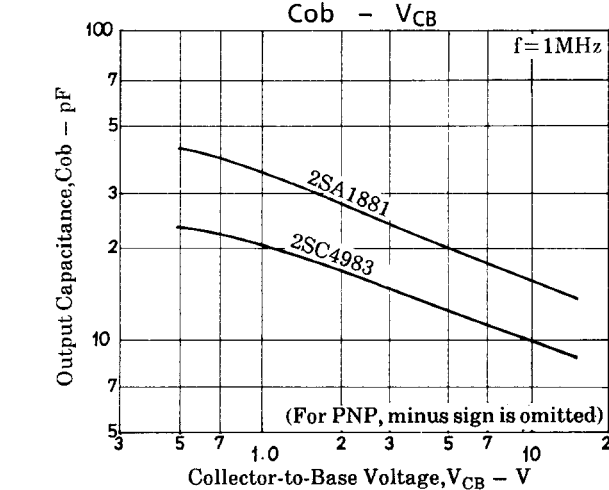
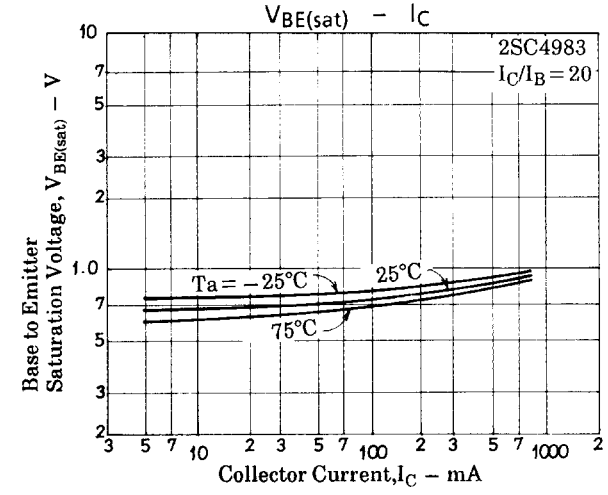
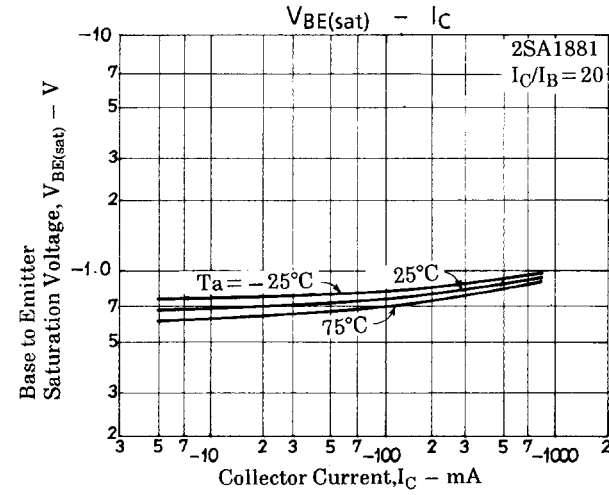
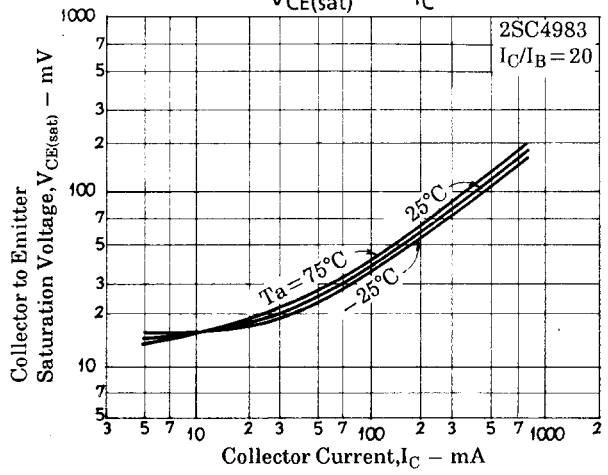
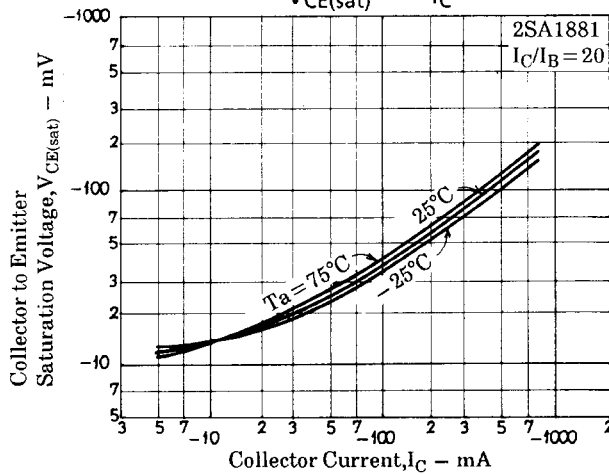
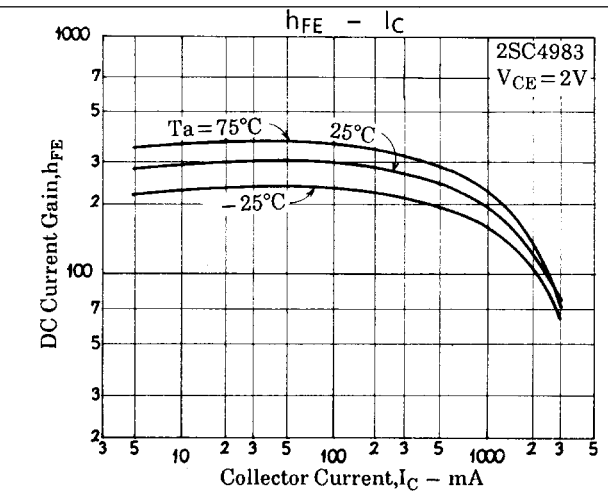
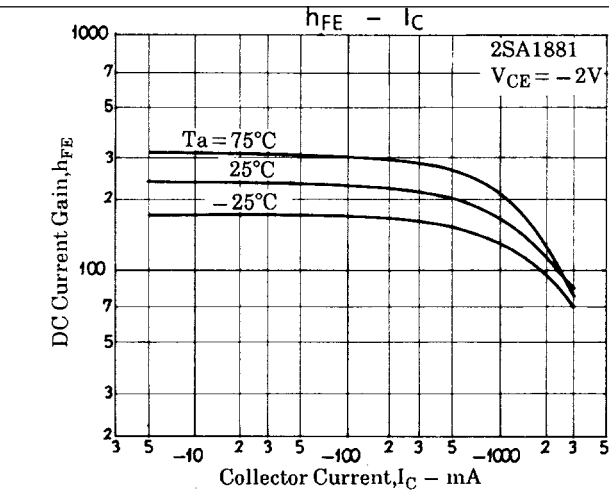
\* : The 2SA1881/2SC4983 are classified by 50mA  $h_{FE}$  as follows :

135 5 270	200 6 400	300 7 600
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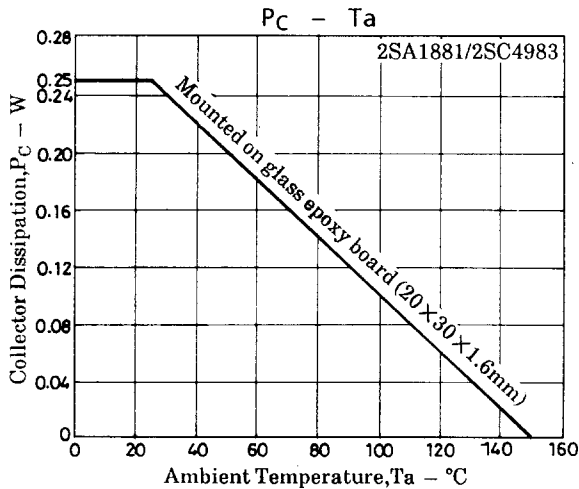
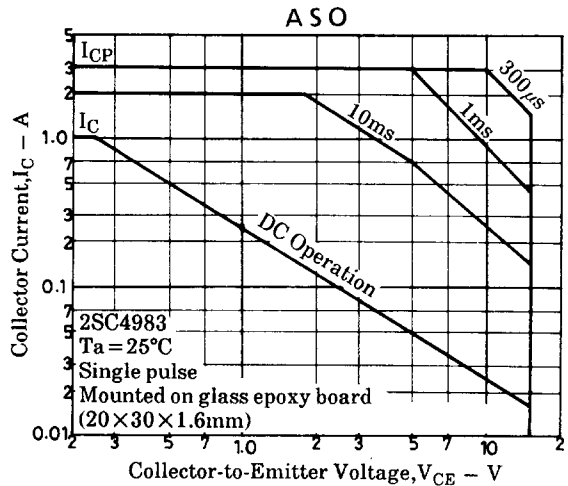
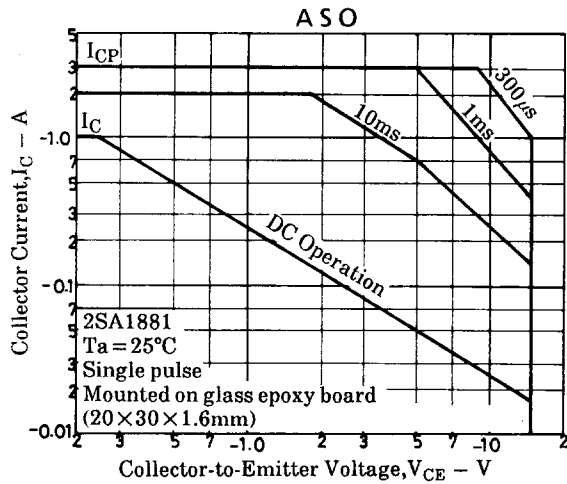
Marking : 2SA1881 : IS  
2SC4983 : KN



# 2SA1881/2SC4983



## 2SA1881/2SC4983



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