



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

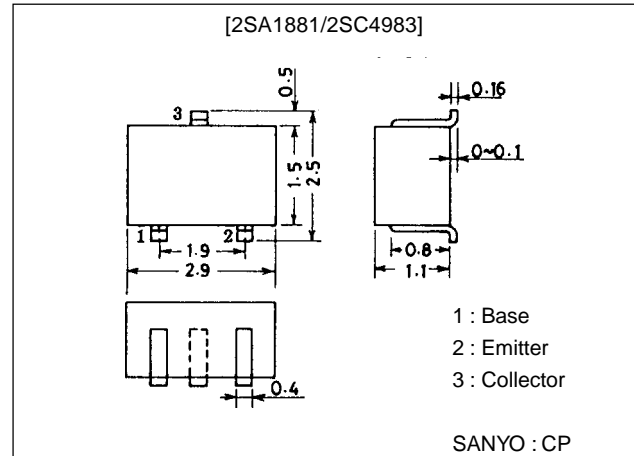
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Package Dimensions

unit:mm

2018B



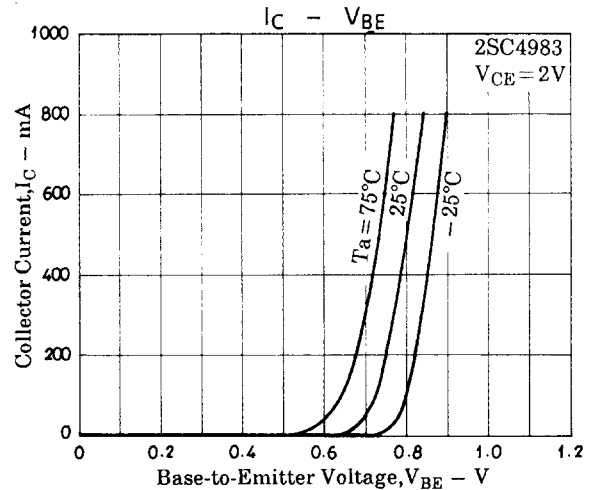
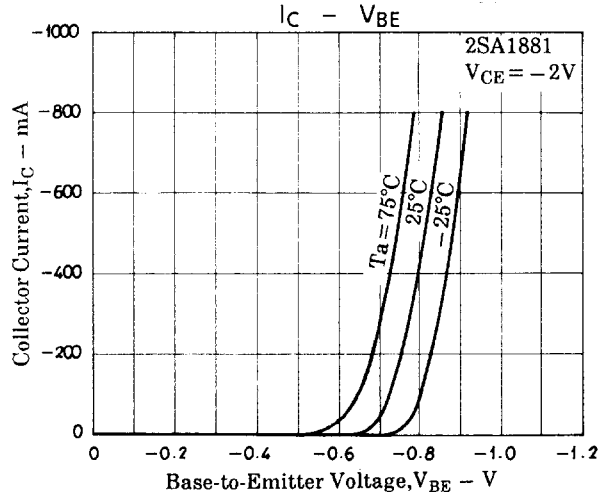
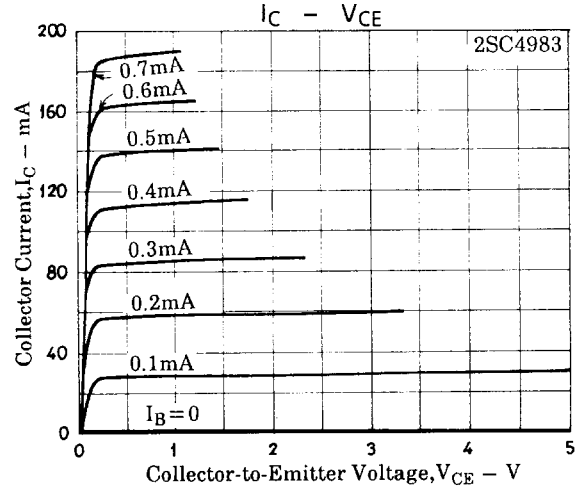
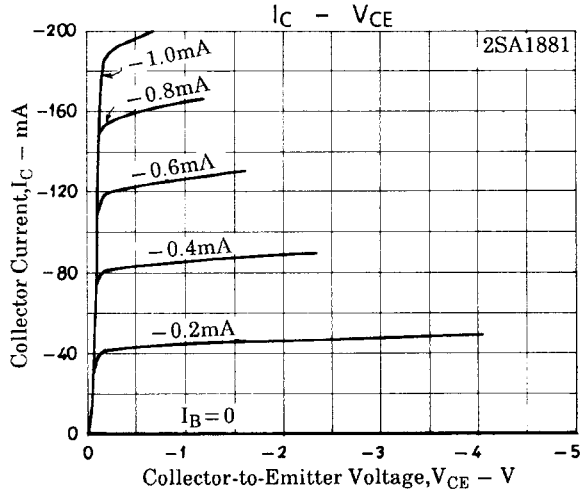
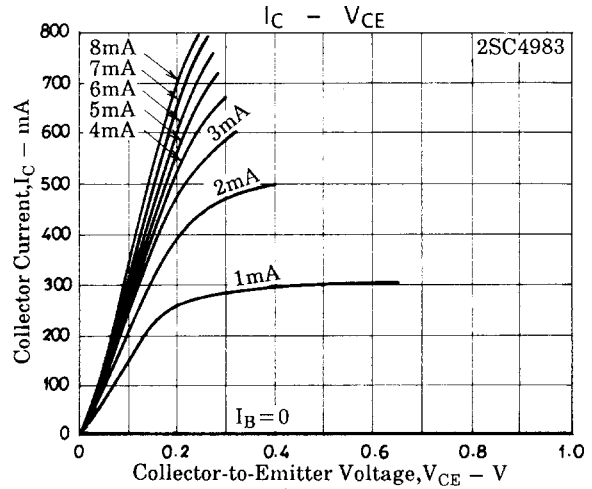
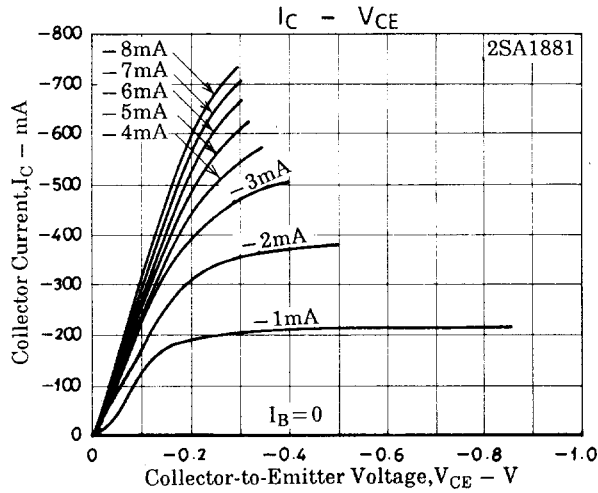
2SA1881/2SC4983

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

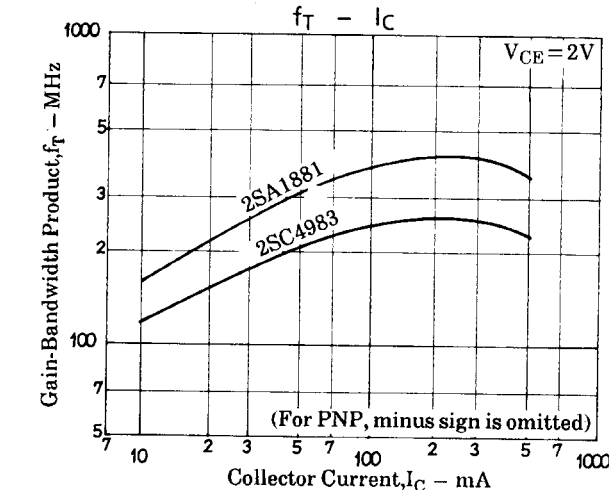
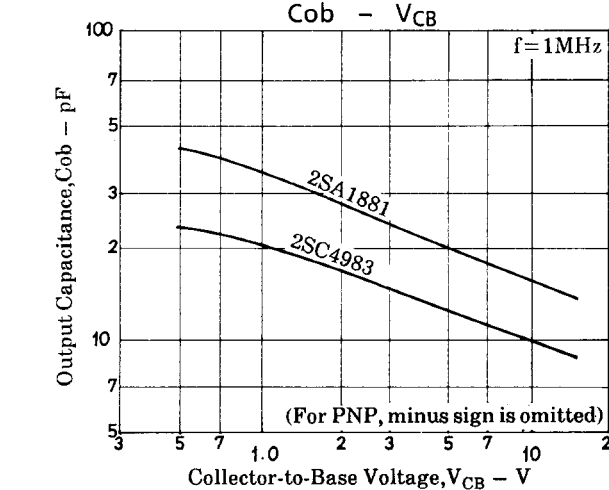
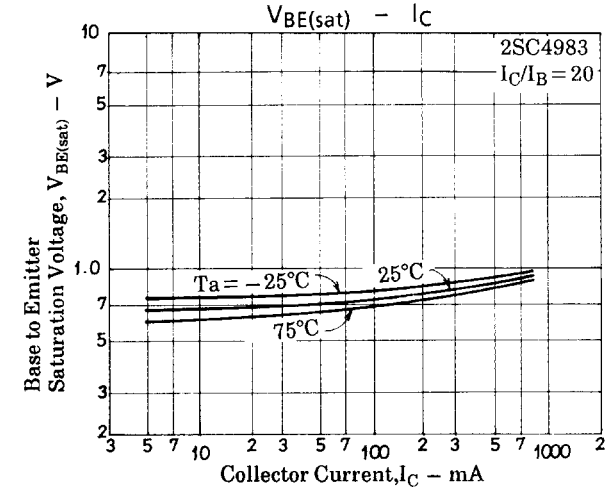
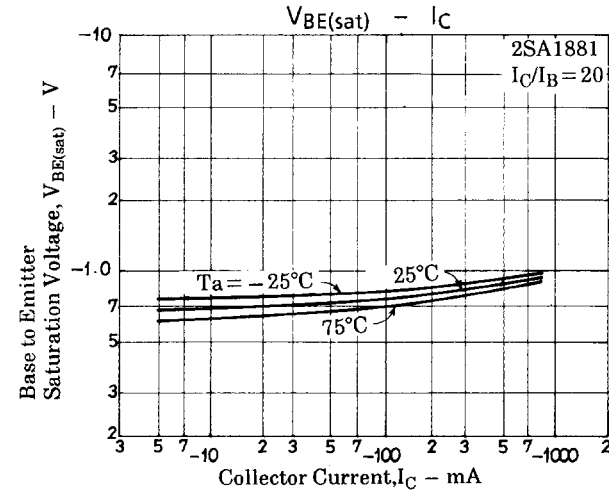
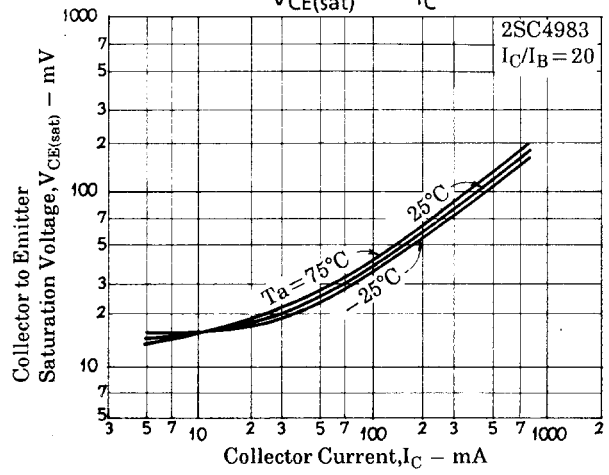
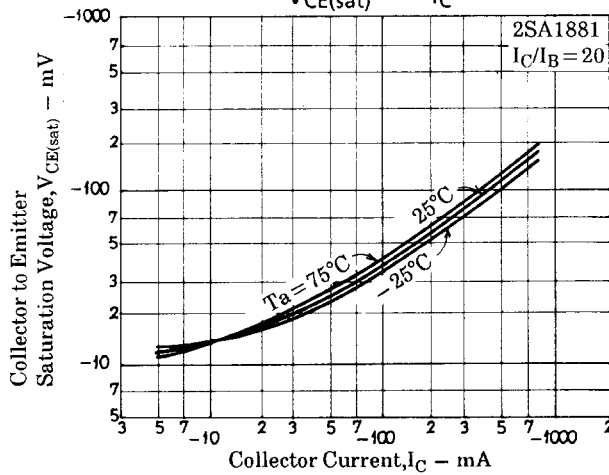
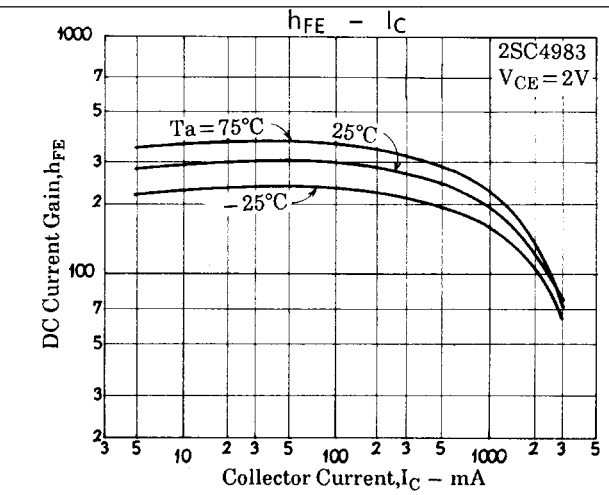
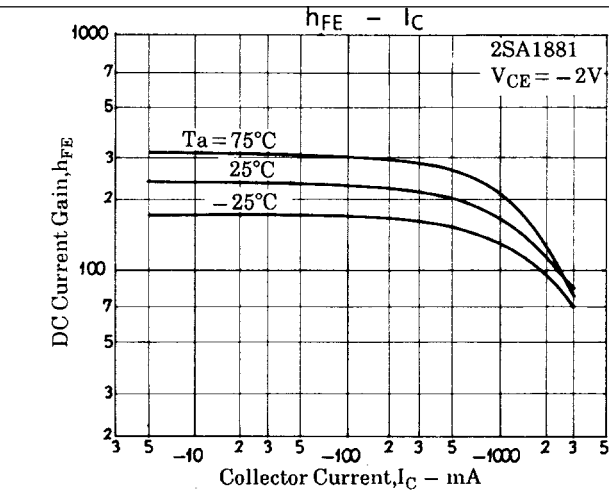
* : The 2SA1881/2SC4983 are classified by 50mA h_{FE} as follows :

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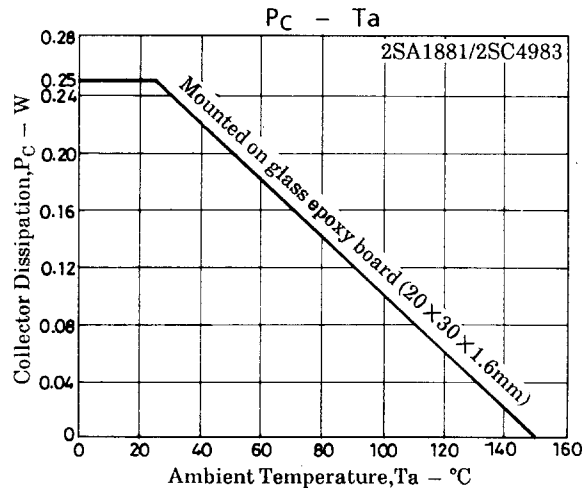
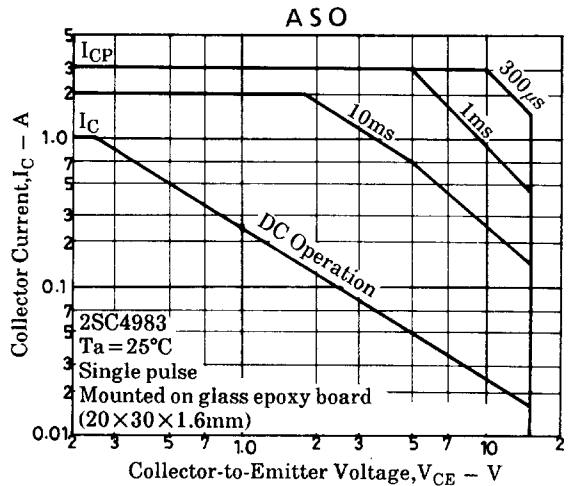
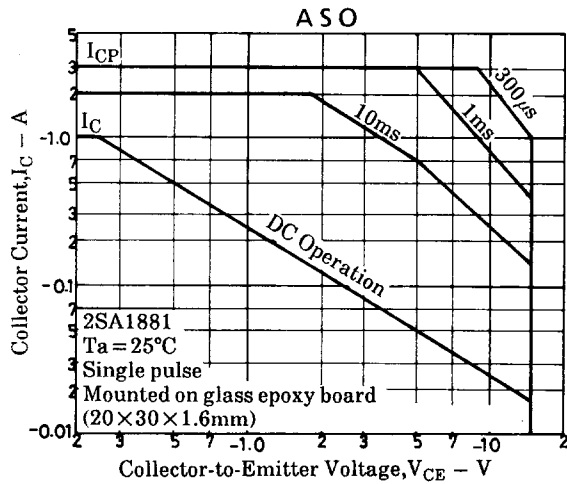
Marking : 2SA1881 : IS
2SC4983 : KN



2SA1881/2SC4983



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